North Carolina Baptist Hospital
Community Health Needs Assessment
Accepted by the Board of Trustees
Approved on June 6, 2013

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I. Background

North Carolina Baptist Hospital (NCBH) is a component member of Wake Forest Baptist Medical Center (Medical Center), a preeminent, internationally recognized academic medical center of the highest quality, with balanced excellence in patient care, research and education. The Medical Center is northwest North Carolina's sole academic medical center. NCBH is a North Carolina not- for-profit corporation that owns and operates an 885 bed, teaching hospital located in Forsyth County, North Carolina. NCBH is the leading provider of healthcare in western North Carolina and has served the state's and region's population since 1923. As a component member of the Medical Center, NCBH shares the Medical Center's mission, vision and values which are:

Mission
Wake Forest Baptist Medical Center's mission is to improve the health of our region, state and nation by:

- Generating and translating knowledge to prevent, diagnose and treat disease.
- Training leaders in health care and biomedical science.
- Serving as the premier health system in our region, with specific centers of excellence recognized as national and international care destinations.

Vision
Wake Forest Baptist Medical Center is a preeminent, internationally recognized academic medical center of the highest quality with balanced excellence in patient care, research and education.

Values

- *Excellence* - demonstrate the highest standards of patient-centered care, education, research and operational effectiveness
- *Compassion* - responsive to the physical, emotional, spiritual and intellectual needs of all
- *Service* - cultivate selfless contribution for the greater good
- *Integrity* - demonstrate fairness, honesty, sincerity and accountability
- *Diversity* - honor individuality and protect the dignity of all
- *Collegiality* - foster mutual respect; facilitate professional growth and mentorship; and reward teamwork and collaboration
- *Innovation* - promote creativity to enhance discovery and the application of knowledge

II. Establishing the Community Health Assessment Infrastructure

The Patient Protection and Affordable Care Act (ACA) enacted Internal Revenue Code Section 501(r), which imposed additional requirements on charitable hospital facilities. Such requirements include performing and adopting a community health needs assessment (CHNA) at least once every three years and adopting an implementation strategy to meet the community health needs identified through the CHNA. The CHNA must take into account input from persons who represent the broad interests of the community served by the hospital facility, including those with special knowledge of or expertise in public health, and must be made widely available to the public. For purposes of this report, a community health needs assessment is a written document developed by a hospital facility (alone or in conjunction with others) that utilizes data to identify and prioritize significant community health needs and includes descriptions of the following: (1) the process and methods used to conduct the CHNA; (2) individuals, groups and collaborators used to provide input; (3) how NCBH took into account input from community members and public health experts; (4) a description of the community served and how it was determined; (5) a description of the prioritized significant community health needs identified through the CHNA; and (6) a description of measures and resources identified during the CHNA process to address the significant community health needs.

The Association for Community Health Improvement's (ACHI) 6-step Community Health Assessment process and the North Carolina Division of Public Health Assessment process were used as organizing methodologies to conduct the assessment in Forsyth County, North Carolina. A community-wide team comprised of representatives from Forsyth County Department of Health, North Carolina Baptist Hospital (NCBH), Forsyth Medical Center, Forsyth Futures, various community groups including the United Way, the YMCA, YWCA and the County government convened to conduct a collaborative Community Health Needs Assessment (CHNA) with input from key community leaders, the academic community, the school district, and the general public among others. Please see exhibit 1 for a complete list of CHNA participants.

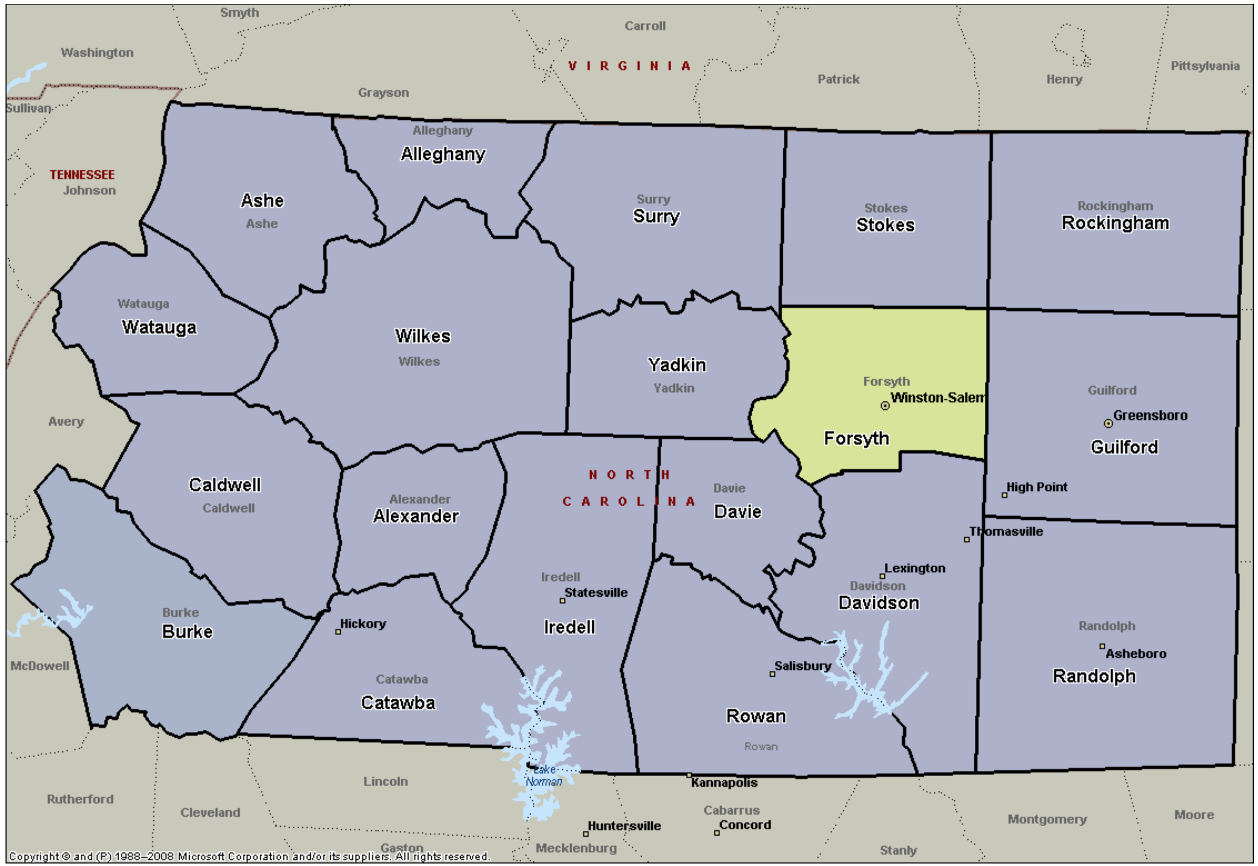
Figure 1 - ACHI 6-Step Community Health Assessment Process

III. Defining the Purpose and Scope

Founded on the principles of collaboration and community mobilization, the community health needs assessment process was conducted to include the following scope: 1) a definition of the community served and a description of how the community was determined; 2) a description of the process and methods used to conduct the assessment; 3) a description of how the hospital facility took into account input from persons who represent the broad interests of the community; 4) a prioritized description of the significant health needs identified through the assessment; and 5) a description of the potential measures and resources identified through the CHNA to address the significant health needs. Particular emphasis was placed on ensuring that the broad interests of the community were taken into account including the medically underserved, low-income and minority populations, which were represented throughout the data collection and community prioritization process.

Despite the regional patient mix of NCBH, the geography identified for the needs assessment was Forsyth County, North Carolina. NCBH is located in central Forsyth County, which comprises the single largest county in total inpatient admissions, accounting for 13,192 or 40% of all admissions in FY 12. It is important to note that no other county in the service area or state reflects more than 10% in inpatient volume as noted below:

County	Inpatient Discharges	% of 19 county service area discharges
Forsyth	13,192	39.9%
Davidson	2,859	8.7%
Guilford	2,588	7.9%
Surry	1,972	6.0%
Wilkes	1,594	4.9%
Stokes	1,374	4.2%
Davie	1,192	3.6%
Randolph	1,178	3.6%
Iredell	1,120	3.4%
Yadkin	1,014	3.1%
Catawba	947	2.9%
Rockingham	863	2.6%
Rowan	705	2.2%
Ashe	471	1.5%
Caldwell	468	1.4%
Watauga	363	1.1%
Burke	339	1.0%
Alleghany	332	1.0%
Alexander	285	0.9%



Smyth
Carroll
Washington
V I R G I N I A
Patrick
Henry
Pittsylvania
Grayson
Sullivan
TENNESSEE
Johnson
Alleghany
Alleghany
Ashe
Ashe
Surry
Surry
Stokes
Stokes
Rockingham
Rockingham
Watauga
Watauga
Wilkes
Wilkes
Yadkin
Yadkin
Forsyth
Winston-Salem
Forsyth
Guilford
Greensboro
Guilford
Avery
Caldwell
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N O R T H
C A R O L I N A
Davie
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Alexander
Alexander
High Point
Thomasville
Lexington
Davidson
Davidson
Iredell
Statesville
Iredell
Burke
Burke
Hickory
Randolph
Asheboro
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Stanly
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IV. Collecting and Analyzing Data

A) Community Perspective

The community's perspective was obtained through three sources of primary data collection- 1) a door-to-door survey of Forsyth County residents to identify their top health concerns and their top barriers in accessing health care; 2) nine focus groups conducted with key underserved, low- income and minority communities; and 3) a youth risk behavior survey administered to Forsyth County middle and high school students. Collectively, all three were used to gauge the community's thoughts and perceptions regarding a wide range of community and healthcare issues. For the full detailed report and the complete set of primary data collection findings, please refer to the report- 2011 Forsyth County Community Health Assessment Report -http://www.co.forsyth.nc.us/publichealth/publications.aspx

Door-to-Door Community Opinion Survey: Survey participants were selected based on GPS coordinates for parcels and structures, utilizing a local tax information system and were randomly selected according to Centers for Disease Control and Prevention (CDC)'s 40-7 Rapid Needs Assessment method. In this selection process, 20 census blocks were chosen throughout the county, with seven selected household points within each block group. A total of 231 of the target 280 surveys were collected (for a response rate of 60%) between March 31, 2011 and April 2, 2011. Participants were asked to supply their demographic information, as well as their opinions on an array of quality-of-life statements, community issues, lists of services and health behaviors. Additionally, participants were asked about their personal health, access to care and emergency preparedness.

Demographic Comparison of Survey Participants

Population Category	Survey Participants		County Population
	Number	Percent	Percent
Age (n=231)			
15-24	20	8.7%	14.1%
25-34	29	12.6%	12.8%
35-44	46	19.9%	13.4%
45-54	48	20.8%	14.6%
55-64	33	14.3%	11.8%
65+	54	23.4%	12.9%
Unk.	1	0.45	
Gender (n-231)			
Female	140	60.6%	52.5%
Male	87	37.7%	47.5%
Unk.	4	1.7%	
Race (n-231)			
White/Caucasian	138	59.7%	62.3%
African American/Black	70	30.3%	26.0%
American Indian	5	2.2%	0.4%
Asian	5	2.2%	1.9%
Other	10	4.3%	9.4%
Ethnicity (n-231)			
Hispanic	20	8.7%	11.9%

Non-Hispanic	209	90.5%	88.1%
Unk.	2	0.9%	
Other (n-varies)			
Unemployed	25	10.8%	10.1%*
Less than HS Diploma	31	13.5%	13.3%**
Household Income <$25,000	58	31.1%	27.2%**
Note: Unknown: Unk.; * = 2009 American Community Survey; ** = NC Employment Security Commission June 2011			

Opinion Survey – Community Strengths	Opinion Survey- Community Weaknesses
Good healthcare	Lack of information about chronic diseases
Good place to grow old	Need more eldercare
Most people don't smoke	Not prepared for emergencies
Many have access to internet	Lack of economic opportunity (underemployment and unemployment)
We are a safe community	Food insecurity
We have a good quality of life	Many lack access to health insurance
Residents seek knowledge from their healthcare provider and have good access to their provider	Missing target for healthy eating
People say they are physically active	There is a "disconnect" with mental health (need, perceived need, definition, etc.)

Focus Groups: Nine focus groups were conducted between March 2011 and August 2011 in Forsyth County with the primary intention of understanding the community's concerns regarding food access, healthcare access, and neighborhood activism in order to identify barriers that affect Forsyth County resident's overall health. The focus groups were conducted in the Winston Salem housing wards, Hispanic churches, and senior communities and comprised a total of 93 participants. A summary of the focus groups are provided below:

*Community concerns and opinions on **food access*** included developing a habit of eating healthy; not having the time to cook; cost of healthier food; and eating out a lot. Their habits varied from style of cooking, cultural differences and selection of food. They mostly shopped at Wal-Mart, Food Lion, Sam's Club, Costco and Aldi's because of their prices, location, convenience and buying in bulk.

*Community concerns and opinions on **healthcare access*** included medical care, mental healthcare and going to work while sick. Most of the participants go to their primary care provider (PCP) for medical care because of the lengthy relationship and built trust; and those without health insurance go to a Hospital Emergency Department, Church clinics or health fairs. They would go to their PCP referral, Behavioral Health Plaza or Daymark for mental health concerns or to a Hospital Emergency Department. Their form of payment ranges from health insurance, state assistance or church assistance or payment plans. They either drive or take the bus to get to their appointments. For afterhour's crisis, they would call 911, their PCP on-call number or use a Hospital Emergency Department. More than half stated that they went to work sick for lack of sick paid leave.

Hispanic community concerns and opinions on food access included the difficulty of avoiding starchy food; obesity of their children and the difficulty to motivate them to eat vegetables; cost of organic food; and unhealthy food choices in schools. They mostly shopped at Wal-Mart, Compare, Aldi's, Food Lion, and Mexican stores because of their prices, store specials and finding everything at one place. Most of them stated that they had the skills to prepare healthy meals. However they thought that it was too expensive to

cook healthy meals at home, despite this they reported that they cook healthy meals 2 -3 times during the week. Their concern regarding food preparation and storage was labeling food properly.

Hispanic community concerns and opinions on healthcare access included medical care, mental care and going to work while sick. Their responses regarding where they go for medical care varied from Free Clinic, Church Clinics, Health Fairs, Primary Care, high bills from the Emergency Department, affordable payment plan at Downtown Health Plaza, too many requirements from Community Care Center to not going anywhere because of lack of health insurance. Their form of payment included Carolina Access, state assistance or church assistance or payment plans. They rode the bus, took a taxi or drove their cars to get to their appointments. For afterhour's crisis, some stated that they would call 911 while others stated that they do not to call anyone because of language barriers. Majority stated that they went to work sick for lack of sick paid leave, they were temporary workers and they can't afford to miss any days of work due to the economy; so they take some medicine and go on to work.

Youth Risk Behavior Survey: In the spring of 2011, the Forsyth County Department of Public Health, with assistance from community partners, administered a comprehensive survey to fifteen public middle schools with 2,184 middle school respondents and thirteen public high schools with 1,532 high school respondents. The survey was administered to assess at-risk behaviors related to mental health, smoking, drug use, nutrition and exercise. The key findings are summarized below:

YBRS Strengths	YBRS Weaknesses
Physical activity	Suicide and related behaviors
Seat belt usage	Increase in high school marijuana use
Middle school self esteem	Texting while driving
Tobacco rate remains flat	Teen pregnancy
Decrease in soda consumption	Fighting/ bullying
Most students view themselves as being at a healthy weight	Riding with a driver that has been drinking alcohol
Most students visit the dentist	Alcohol use
Small percent feel they have a disability	Too much TV/computer screen time
	Lack of STI knowledge
	Risky sexual behaviors

B) Health Experts

NCBH worked with the public health experts from the Forsyth County Department of Health to conduct the community needs assessment. Representatives with expertise in public health included the following:

- **Ayo Ademoyero, Epidemiology Director, Forsyth County Department of Public Health. Expertise in epidemiology.**
- **Shiela Bogan, Health Promotion/Disease Prevention Section Director,** Forsyth County Department of Public Health. Expertise in Community Health and Health Promotion**.**
- **Mayte Grundseth, WIC Director,** Forsyth County Department of Public Health. Expertise in Maternal and Child Health.
- **Marlon Hunter,** Director, Forsyth County Department of Public Health. Expertise in Public Health Administration.
- **Lashun Huntley, Healthy Carolinians Coordinator,** Forsyth County Department of Public Health. Expertise in Community Health and Coalitions.
- **Debbie Mason, Health Policy Unit Section Director, Forsyth County Department of Public Health. Expertise in Infant Mortality, Community Health, and Health Policy.**
- **Lynne Mitchell, Preventive Health Services Director**, Forsyth County Department of Public Health. Expertise in Healthy Policy and Community Health.
- **Jennifer Staten,** Research Assistant, Forsyth County Department of Public Health. Expertise in Data Analysis.
- **Quintana Stewart, Director of Emergency Response,** Forsyth County Department of Public Health. Expertise in Preparedness and Emergency Response.
- **Rebecca Thompson, Youth Tobacco Coordinator**, Forsyth County Department of Public Health. Expertise in Youth Tobacco Prevention and Community Coalitions.

C) Community Leaders

Forty one community leaders representing the faith community, private business, healthcare, higher education, preK-12 education, public safety, social services, mental health, government, and private and public foundations were interviewed between March and June 2011 on a wide variety of topics. Stakeholders shared information about the services they provide, their perceptions of current and emerging community issues, the strengths of the community and areas that need improvement. Stakeholders indicated that the major challenges or needs for residents that are not being addressed are as follows:

- Employment opportunities/Retraining & job skills (7)
- Financial constraint (5)
- Mental health issues (5)
- Wealth disparity (4)
- Access to healthcare (3)

“Rising rates of co-morbidities in older adults with cardiovascular disease, diabetes, and cancer; Obesity epidemic in kids – a generation of kids getting early diabetes and Type 2 diabetes”
“Gaps in service - mental health - not addressing mental health in terms of types of services”
“….increasing gap between low and high SES not being addressed in our current conversations;”
“Underemployment; Employment - We need more appropriate level compensation and skills for jobs.”

The most often mentioned major health-related problems they perceived in Forsyth County were prioritized as the following:

- Overweight and obesity (18)
- Mental health issues; lack of mental illnesses services (8)
- Chronic illnesses such as diabetes, high blood pressure, heart disease (8)
- Access to healthcare; no health insurance (7)
- Infant mortality (5)
- Substance abuse /addiction (4)

The community leaders interviewed include the following, several of which represent the low-income, underserved and minority populations of Forsyth County:

- Arts Council of Winston-Salem/Forsyth County
- Piedmont Environmental Alliance
- BB&T Corporation
- Carolina Farm Stewardship Association
- Centerpoint*
- Senior Services*
- City of Winston-Salem*
- Smart Start of Forsyth County*
- Data Max
- Tanglewood Park
- Department of Juvenile Justice*
- Temple Emmanuel
- Department of Social Services*
- The Children’s Home*
- Family Services, Inc*
- UNC School of the Arts
- Forsyth County Government*
- Wake Forest University
- Forsyth County Sheriff's Office*
- Winston-Salem Foundation
- Forsyth Technical Community College
- Winston-Salem Police Department*
- Goler Community Development Center*
- Winston-Salem State University*
- Goodwill Industries*
- Winston-Salem Symphony
- Insight Human Services*
- Winston-Salem/Forsyth County School System*
- Kate B. Reynolds Foundation
- WS Sustainability Resource Center*
- Mental Health Association of Forsyth County*
- WSSU Center for Community Safety*
- Neighborhood Solutions
- YMCA
- Novant Health
- Z. Smith Reynolds Foundation

*Represents and/or provides support services to the medically underserved, low income and/or minority population in Forsyth County.

D) County Level Health Statistics/Indicators

An additional aspect of the CHNA process was to review all readily available secondary data published by the local health department and the North Carolina Department of Health and Human Services. NCBH staff reviewed the following local and state data sources:

- Forsyth County Department of Health Data- mortality, morbidity, mental health
- North Carolina Center for Health Statistics-North Carolina Healthy People 2020
- NC Community Health Information Portal

NCBH also reviewed the following national data sources:

- Healthy People 2020- National Agenda
- Centers for Disease Control and Prevention reports/updates
- Dignity Health- Community Need Index

The data below is categorized into nine public health data categories with local, state and national data reviewed for each.

1. Social Determinants of Health

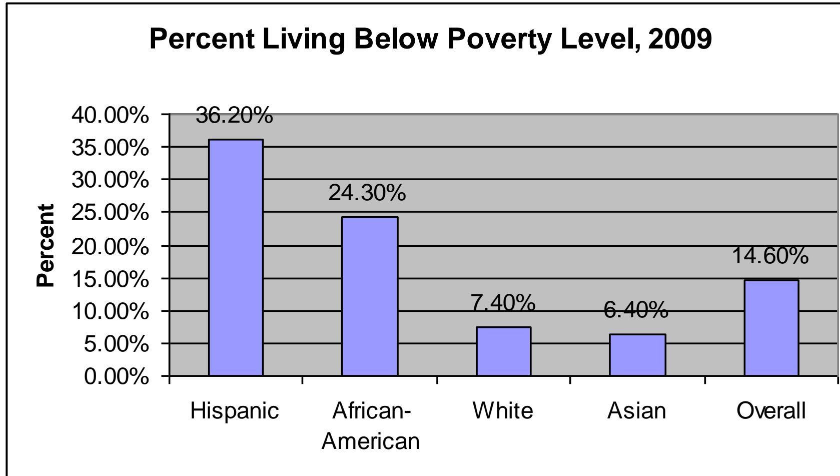
Social determinants of health are defined by the Centers for Disease Control and Prevention as the circumstances, in which people are born, grow up, live, work, and age, as well as the systems put in place to deal with illness. The CHNA regarded social/health disparities as an important aspect to understanding the relation of healthcare needs to the community. Data collected from both the door to door survey and focus groups indicated that just over 20% of respondents felt that low income and poverty was the priority issue that most affected the quality the life in Forsyth County. Similarly, 20% reported that the availability of employment was the service that needed to be improved the most in their community. Education was prioritized as the leading indicator in Forsyth County to address social determinants as a means to improve population health. Higher levels of education are associated with:

- Longer life expectancy
- Financial security
- Improved health and quality of life
- Health-promoting behaviors like getting regular physical activity, not smoking, and going for routine checkups and recommended screenings.

According to the State Center for Health Statistics, the 2009 four-year high school graduation rate was 72.7% for Forsyth County; high school drop-outs are five times more likely to live below the poverty line, earn 32% less on average than graduates, live nine years less, and are more likely to serve time in jail. In the 2005-2006 school year, dropout rates for grades 7th-12th decreased, although Forsyth County continued to have a higher dropout rate than North Carolina. The County and the State both saw increases in dropout rates in the 2006-2007 school year, but the rate declined the following two school years.

The average annual pay in Forsyth County rose from $39,355 in 2006 to $41,501 in 2009. Forsyth County annual average pay was $1,711 higher on average than North Carolina from 2006-2010. Median Household income varied by race in 2009. Asians had the highest median household income at $64,819 while Hispanic household income was the lowest at $32,240. The percent of the

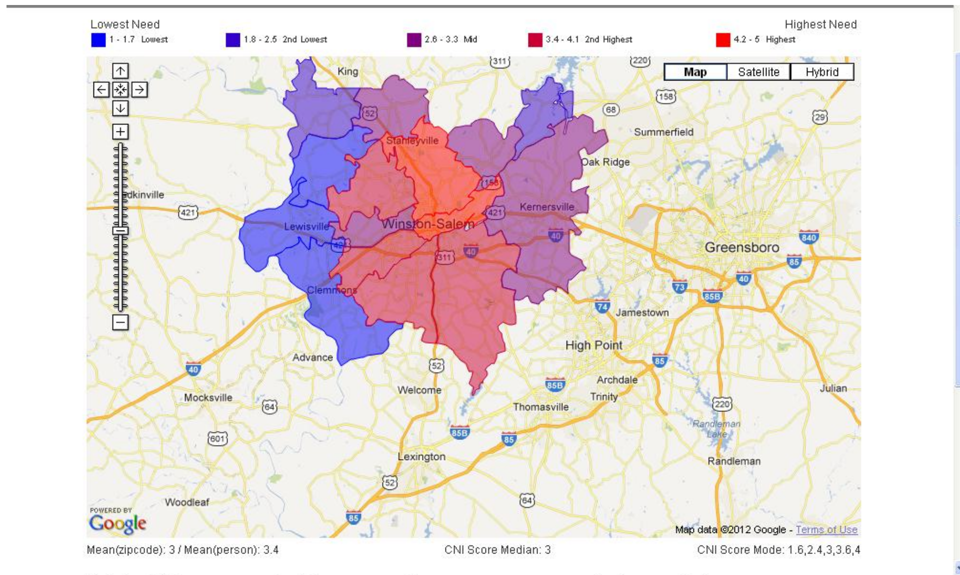
population living below poverty level in 2009 overall was 14.6%. Hispanic and African Americans had higher percentages of the population than the overall rate by approximately 10 percentage points while White and Asian populations were at least 7 percentage points lower.



NCBH also reviewed the Dignity Health Community Need Index (CNI) by zip code for Forsyth County. CNI identifies the severity of health disparity for every zip code in the United States and demonstrates the link between community need, access to care, and preventable hospitalizations. The Community Needs Index aggregates five socioeconomic indicators/barriers to health care access that are known to contribute to health disparities related to income, education, culture/language, insurance and housing. NCBH uses the Community Needs Index to identify communities of high need and direct a range of community health and faith-based community outreach efforts to these areas.
Two zip codes were identified as having the highest need in Forsyth County- 27101 and 27105; due to the following:

- Low educational attainment (40% w/ less than HS degree)
- High poverty rate—15-20%/High Unemployment Rate
- Higher prevalence of violent crimes
- Poor Food Environment-high numbers of fast food restaurants, low access to healthy foods
- High number of hospital readmissions and emergency department visits

The map on the following page shows Forsyth County by zip code with the blue representing the lowest need according to the CNI and the bright red indicating the highest need. Note that the bright red zip code is also a designated Medically Underserved Area (27105) and is the location of Wake Forest Baptist Medical Center's Downtown Health Plaza Clinic, which serves a high number of Medicaid and uninsured patients in Forsyth County.



The following measures are used to compare Davie, Davidson and Forsyth counties relative to the indicator data currently collected by Health People 2020, North Carolina Healthy People 2010 and the Robert Wood Johnson indicators

Indicators	Forsyth	Davie	Davidson	Benchmark/ Targets
SOCIAL DETERMINANTS				
Healthy People 2020				
% Graduate HS in 4 years (2010-11)	78.80%	76.60%	78.70%	82.40%
NC Healthy People 2020				
% Persons Living in Poverty	16.70%	14%	17.30%	12.50%
% Spending >30% Income on Rent	46.10%	33.80%	37.50%	36.10%
RWJ Indicators				
% Age 25-44 w/ some post-secondary education	61.70%	57.60%	48.90%	-
% Avg Freshman Graduation Rate	82.10%	77.30%	80%	-
% Children Eligible for Free lunch	38.70%	21.50%	16.40%	45%
% Children in Poverty	24.20%	21.60%	26.30%	13%
% High Housing Costs	31.60%	24.20%	27.50%	32%
% Illiterate	13.20%	12.40%	14%	13.60%
% No Social/ Emotional Support	17.90%	18.50%	22.40%	14%
% Single Parent Households	37.10%	22.50%	31.10%	20%
% Unemployed	9.90%	10.80%	12.50%	5.40%
Median Household Income	$44,443	$46,957	$40,618	$43,417

2. Access to Healthcare Services

Forsyth County has a high number of primary care providers and a higher percentage of adults reporting having a usual primary care provider. Forsyth County does continue to have a high percentage of uninsured when compared to state and national benchmarks. Despite the median income of Forsyth County being above the state and national average, many residents are without health insurance. Barriers like lack of health insurance and the high cost of medical care decrease access to quality health care and can lead to unmet health needs. This includes delays in receiving appropriate care, inability to get preventive services, and potentially preventable hospitalizations thus increasing mortality and morbidity (HHS, 2010). Approximately 17% of Forsyth County residents were without health insurance in 2010. Hispanics are more than 5 times as likely to be without health insurance in Forsyth County when compared to their white counterparts. In addition, approximately 65% of the Forsyth County's uninsured population comes from households with combined incomes of less than $75,000 annually.

Indicators	Forsyth	Davie	Davidson	Benchmark/ Targets
Healthy People 2020				
% persons with usual primary care provider	86.30%	na	72.50%	83.90%
RWJ Indicators				
% could not access doctor due to cost	13%	16%	21%	17%
% uninsured	17.00%	19.00%	19.00%	11%
PCP Physicians	624:1	2,282:1	2,508:1	631:1
Preventable Hospital Stays	61	75	84	49

3. Chronic Disease

Forsyth County consistently demonstrates higher death rates especially as it relates to cancer and heart disease.

Cancer

Incidence and death rates from all cancers have been declining due to advances in research, detection and treatment, yet, cancer remains a leading cause of death in the United States (U.S. Department of Health and Human Services, 2010). However, cancer remains as the leading cause of death for Forsyth County residents (NC Center for Health Statistics, 2011) and is the leading cause of death among all races. The burden of battling cancers within our community varies; with disparities clearly present (DHHS, 2011). For example, the adjusted death rate for prostate cancer is 7.6 for the Forsyth County white population versus 17.4 for the black population, which means that for every one white resident that dies from prostate cancer there are 2.3 black residents that die from prostate cancer.

The chart below illustrates the significant disparities in adjusted death rates for Forsyth County:

Health Disparities in Forsyth County 2005-2009 Adjusted Death Rates				
	White	**Black**	**Black Ratio to White**	**White Ratio**
Prostate Cancer	7.6	17.4	2.3	1
Diabetes	14.1	45.9	3.3	1
Heart Disease	136.2	203	1.5	1
Stroke	43.7	72.2	1.7	1
Chronic Lower Respiratory Disease	53	35	1	1.5
Kidney Disease	13.5	32.3	2.4	1
Suicide	12.9	5.4	1	2.4
Homicide	4.3	13.1	3.1	1

Cardiovascular Disease

Cardiovascular disease, commonly called heart disease, refers to a group of heart conditions. The most common cardiovascular disease is coronary artery disease but also includes heart attacks, anginas, heart failure, stroke and arrhythmias. Heart disease is the leading cause of death in the United States. The 2009 Forsyth County Behavior Risk Factor Surveillance System (BRFSS) survey results revealed that 5.9% of survey participants had a history of cardiovascular disease. This percent was less than the state percent of 8.7% with a history of any cardiovascular disease.

Diabetes

Diabetes Mellitus affects an estimated 23.6 million people in the United States and is the 7th leading cause of death (CDC, 2008). It is also the 7th leading cause of death in Forsyth County. Diabetes can lower life expectancy by up to 15 years and increases the risk of heart disease by 2 to 4 times. It is also the leading cause of kidney failure, lower limb amputations and adult-onset blindness (U.S. Department of Health and Human Services, 2010). Further research reveals it is the 4th leading cause of death for the non-white population of Forsyth County and that the African American population has a much higher mortality rate for diabetes with a ratio of 1:3.3. Overall, in 2009, 8.7% of BRFSS participants in Forsyth County reported being told they had diabetes by a doctor.

Indicators	Forsyth	Davie	Davidson	Benchmark/ Targets
ealthy People 2020				
Age Adjusted Heart Disease Deaths per 100K	101.9	120.4	162.6	100.8
Cancer Death Rate per 100K	181.3	173.8	189.7	160.6
Breast Cancer Death Rate per 100K (females)	23.5	22.1	22.9	20.6
Lung Cancer Death Rate per 100K	54.2	61.7	61.9	45.5
Prostate Cancer Deaths per 100K (males)	25.9	18	23.6	21.2
Stroke Deaths per 100K	53.7	41.6	58.3	33.8
NC Healthy People 2020				
Age Adjusted CVD Deaths per 100K	197.2	196.5	263.9	161.5
Age Adjusted Colorectal Deaths per 100K	15	13.6	16.8	10.1

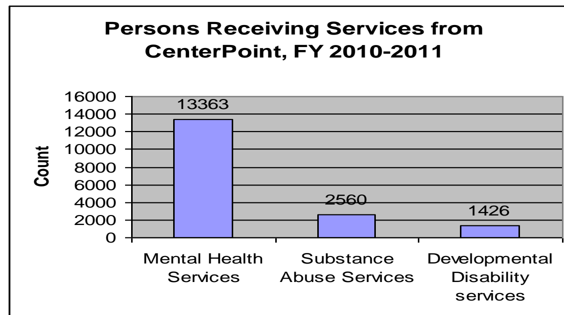
Age Adjusted % Adults w/ Diabetes	7.90%	8.30%	9.70%	8.60%
RWJ Indicators				
% Diabetic	9.50%	10.30%	9.90%	10%
NC Healthy People 2020				
% Adults with Colorectal Cancer Screening	62.40%	-	60.30%	70.50%
RWJ Indicators				
%HbA1C Screening	87.60%	88.80%	85.80%	-
% Mammography Screening	66.60%	66.10%	63%	74%
Ambulatory Care Sensitive Conditions Rate	61.20%	75.30%	83.80%	-

Residence=Forsyth Mortality Data

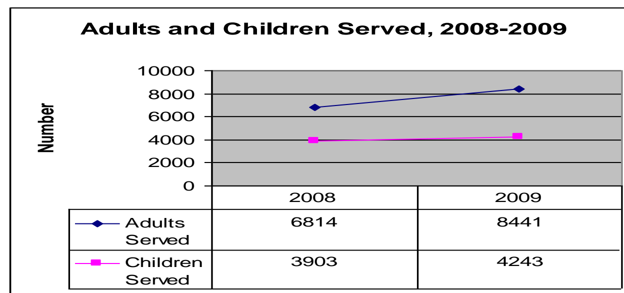
	White, non-Hispanic				African American, non-Hispanic				Other Races, non-Hispanic				Hispanic					
	Male		Female		Male		Female		Male		Female		Male		Female		Overall	
Cause of Death:	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate
All Causes	4,913	865.9	5,572	627.4	1,701	1217.4	1,775	812.3	42	442.3	32	328.4	127	263.7	68	176.0	14,230	766.7
Diseases of Heart	1,021	177.6	938	100.1	371	269.7	333	152.3	14	N/A	4	N/A	10	N/A	5	N/A	2,696	144.1
Acute Myocardial Infarction	254	42.9	191	21.3	77	60.6	59	27.5	5	N/A	1	N/A	1	N/A	0	N/A	588	31.5
Other Ischemic Heart Disease	442	77.4	280	29.4	147	107.0	123	56.4	9	N/A	0	N/A	5	N/A	1	N/A	1,007	53.7
Cerebrovascular Disease	250	45.1	379	39.0	91	72.1	144	67.4	2	N/A	3	N/A	4	N/A	5	N/A	878	47.2
Cancer	1,267	213.7	1,248	151.0	411	302.6	388	172.0	9	N/A	11	N/A	19	N/A	20	70.6	3,373	181.2
Colon, Rectum, and Anus	90	15.1	106	12.2	40	27.9	46	20.5	0	N/A	0	N/A	3	N/A	0	N/A	285	15.1
Pancreas	64	10.6	79	9.2	17	N/A	25	11.6	0	N/A	1	N/A	0	N/A	1	N/A	187	10.1
Trachea, Bronchus, and Lung	425	70.5	358	43.5	135	97.3	83	37.5	1	N/A	2	N/A	1	N/A	3	N/A	1,008	54.1
Breast	4	N/A	166	20.7	0	N/A	78	33.2	0	N/A	1	N/A	0	N/A	3	N/A	252	23.8
Prostate	111	20.2	0	N/A	61	58.1	0	N/A	1	N/A	0	N/A	3	N/A	0	N/A	176	26.0
Diabetes Mellitus	98	16.5	91	10.7	93	59.1	82	38.6	1	N/A	1	N/A	3	N/A	0	N/A	369	19.6
Pneumonia and Influenza	109	20.2	148	16.2	20	17.9	33	15.3	1	N/A	0	N/A	2	N/A	0	N/A	313	17.0
Chronic Lower Respiratory Diseases	337	58.6	445	50.8	56	48.5	56	26.7	0	N/A	0	N/A	0	N/A	1	N/A	895	48.7
Chronic Liver Disease and Cirrhosis	73	11.7	54	6.8	18	N/A	16	N/A	0	N/A	0	N/A	2	N/A	1	N/A	164	8.6
Septicemia	87	15.5	82	9.5	34	23.3	45	20.8	0	N/A	1	N/A	5	N/A	1	N/A	255	13.7
Nephritis, Nephrotic Syndrome, and Nephrosis	108	19.8	91	10.2	40	32.5	63	30.0	2	N/A	0	N/A	1	N/A	1	N/A	306	16.6
Unintentional Motor Vehicle Injuries	86	15.9	39	6.0	34	16.7	13	N/A	1	N/A	0	N/A	23	19.0	4	N/A	200	11.2
All Other Unintentional Injuries	216	40.4	164	21.0	44	26.3	31	14.2	2	N/A	0	N/A	10	N/A	2	N/A	469	25.8
Suicide	125	22.2	47	8.0	20	9.7	4	N/A	1	N/A	0	N/A	3	N/A	0	N/A	200	11.1
Homicide	17	N/A	11	N/A	51	24.9	7	N/A	0	N/A	1	N/A	16	N/A	3	N/A	106	6.1
Alzheimer's disease	96	18.5	314	30.2	16	N/A	68	33.6	0	N/A	1	N/A	0	N/A	0	N/A	495	26.4
Acquired Immune Deficiency Syndrome	7	N/A	4	N/A	35	18.0	32	13.2	0	N/A	1	N/A	1	N/A	0	N/A	80	4.5

4. Mental/Behavioral Health

Forsyth County has a lower life expectancy than the state target and reports 86% of adults in good health compared to the state target of 90%. Mental health services are managed by the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (MH/DD/SA), which is part of the NC Department of Health and Human Services. The Local Management Entity responsible for delivery of publicly-funded MH/DD/SA services in Forsyth County is Center Point Human Services. Center Point Human Services provided mental health services to 13,363 persons, substance abuse services to 2,560 persons and developmental disability to 1,436 persons during the Fiscal Year 2010-2011. Mental health services are received by the highest number in individuals. The majority of those served by Center Point Human Services in Fiscal Year 2010-2011 had a dual diagnosis and received multiple services (1).



From 2008-2009, Center Point Human Services saw an increase in both the number of adults and children served in Forsyth County. By the Fiscal Year 2010-2011, Center Point Human Services served nearly 11,000 adults and 4,200 children who received Medicaid and/or state funds for MH/DD/SA needs.



The 2011 Community Stakeholders Interview (CSI), conducted between March and June 2011 revealed that stakeholders in multiple organizations across the county identified mental health issues as major challenges for residents. Stakeholders stated there were gaps in service for mental health issues. When asked what was perceived to be the major health related problem in Forsyth County, the category of "Mental Health Issues; Lack of Mental Illnesses Services" ranked second highest along with "Chronic Illnesses." Mental health was ranked second, as survey participants noted that restructuring at the state level created problems for those needed services. Stakeholders also identified access to mental health services as the top health service needed for children and adolescents. Stakeholders felt that mental health long-term services are few, especially for preschool or early childhood services, and outpatient mental health services are needed for adolescents as alternatives to institutions and prisons. Counseling/Mental Health/Support Groups were also identified services that stakeholders felt needed improvement in the county from a list of 20 options. Stakeholders identified mental health as a health

problem that has affected their personal lives via family and friends. Overall stakeholders believed mental health should be fully embraced as a public health issue, with a request to see more integrated **services** for mental and physical health, as they now practice as separate entities.

Indicators	Forsyth	Davie	Davidson	Benchmark/ Targets
% Adults Good/Very Good/Excellent Health	85.70%	83.90%	80.50%	90.10%
Life Expectancy	78.7	79.6	76.8	79.5
RWJ Indicators				
% Fair/Poor Health	13.70%	17.50%	19.90%	10%
Mentally Unhealthy Days	3.2	3.3	3.7	2.3
Physically Unhealthy Days	3.1	4.6	4.2	2.6
Years of Potential Life Lost	7,938	7,444	8,582	-

5. Infectious Disease

North Carolina requires certain sexually transmitted diseases (STDs), as communicable diseases, to be reported to local health departments who that report to the State. These STDs are human immunodeficiency virus (HIV), acquired immunodeficiency syndrome (AIDS), chlamydia, gonorrhea, and syphilis. HIV case reports include all new diagnoses with HIV regardless of stage.

HIV & AIDS

Cases are counted as date of first diagnosis for HIV. AIDS case reports only count those with HIV infection who have progressed to a later, more life-threatening stage of HIV. AIDS case report represents persons previously diagnosed with HIV. From 2006-2009, new HIV diagnosis remained consistent in Forsyth County, first declining from 2006 to 2008 and increasing in 2009. The number of AIDS cases has increased continuously, more than doubling from 21 in 2006 to 48 in 2009.

Indicators	Forsyth	Davie	Davidson	Benchmark/ Targets
NC Healthy People 2020				
Age Adjusted Pneumonia Flu Deaths per 100K	16.9	22.4	24.9	13.5
HIV Prevalence Rate	404	76	154	294

6. Maternal, Infant, Child Health

In Forsyth County, the percent of live birth classified as low birth weight is higher than the state average. In 2010, teen pregnancy rates across the state dropped 11% to the lowest level in North Carolina's history. As a state average, fewer than 5% of girls age 15-19 got pregnant last year. Historically, teen pregnancy has disproportionally affected minorities. State data shows that these disparities are shrinking; however they still exist.

Indicators	Forsyth	Davie	Davidson	Benchmark/ Targets
% Preterm Birth of All Live Births	15.10%	15.90%	14%	11.40%
NC Healthy People 2020				
Infant Deaths per 1K Live Births	10.5	5	8.9	6.3
Ratio Black to White Infant Mortality	3.07		2.64	1.92

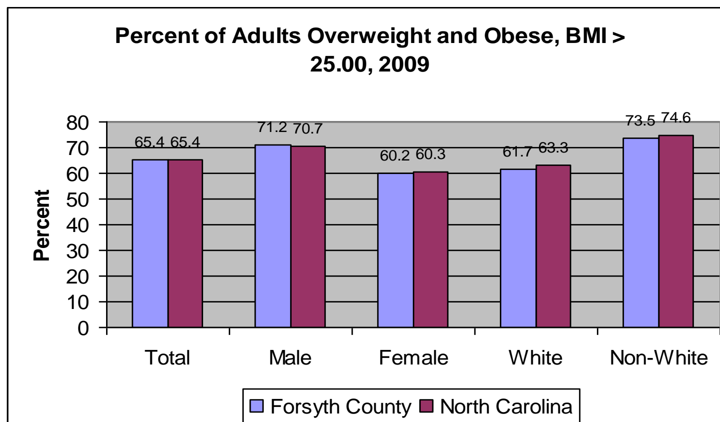
RWJ Indicators				
% Low Birth Weights	10.70%	8.40%	9.40%	6%
Teen Birth Rate	49.7	36.8	55.4	22

7. Nutrition, Physical Activity, Obesity

Forsyth County reports 42% of adults meetphysical recommendations versus the North Carolina target of 61%; Forsyth County is consistent with national benchmarks set by the Robert Wood Johnson Foundation for obesity and physical inactivity, however local community feedback indicates that obesity is top community concern especially as it relates to the pediatric population.

Obesity

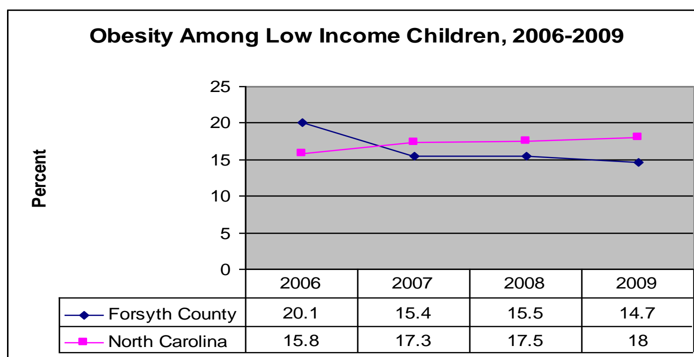
During the past twenty years, obesity rates have increased in the United States; doubling for adults and tripling for children. More than 60% of Forsyth County residents report being overweight or obese in according to the BRFSS survey results. (2009 BRFSS). Obesity affects all populations, regardless of age, sex, race, ethnicity and socioeconomic status (U.S. Department of Health and Human Services, 2010); however, disparities do exist and rates are affected by race/ethnicity, sex and age. Overweight is defined as having excess body weight for a particular height from either fat, muscle, bone, water, or a combination thereof. Obesity is defined as having excess body fat. Both result from a caloric imbalance in which too few calories are expended for the amount of calories consumed.



Child Obesity

According to the CDC, childhood obesity has more than tripled in that past 20 years with 20% of children 6-11 years old and 18% of 12-19 year olds considered obese. Obese children have a higher probability for risk factors for development of chronic diseases and other health effects.

Since 2006, the percent of obese low income children decreased approximately 27% from 20.1% to 14.7 %. This is below the North Carolina average of 18% of low income obese children in 2009, which was an increase of about 14% from 15.8% in 2006. (Low income children are ages two through eighteen who were seen in public health clinics who are considered obese. Obese is defined here as a body mass index equal to or greater than the 95th percentile using federal guidelines. Prior to 2008 this was considered overweight.)



	2006	2007	2008	2009
Forsyth County	20.1	15.4	15.5	14.7
North Carolina	15.8	17.3	17.5	18

Indicators	Forsyth	Davie	Davidson	Benchmark/ Targets
% Adults Meeting Physical Activity Recommendations (2009)	42.10%		45.50%	60.80%
NC Healthy People 2020				
% Adults Eating 5+ Fruits/Veggies per Day (2005-2009)	23.90%	22%	18.70%	29.30%
RWJ Indicators				
% Obese	25.60%	28.50%	29.20%	25%
% Physically Inactive	21.30%	28.90%	30%	21%

8. Injury & Violence

Forsyth County has a higher age adjusted homicide death rate and an unintentional fall rate when compared to State/National targets.

Indicators	Forsyth	Davie	Davidson	Benchmark/ Targets
Healthy People 2020				
Age Adjusted Homicide Deaths per 100K	6.1	na	4.4	5.5
Fatal Injury Deaths per 100K	47.5	74.8	59.3	53.3
NC Healthy People 2020				
Age Adjusted Unintentional Poison Deaths per 100K	8.7	13.7	14.7	9.9
Age Adjusted Unintentional Fall Deaths per 100K	6.6	10.3	8.8	5.3
RWJ Indicators				
Homicide Rate	7.2	na	4.7	
Motor Vehicle Mortality rate	13.3	21.3	22.2	

9. Physical Environment

Forsyth County has a higher percentage of fast food restaurants when compared to national benchmarks. Residents reported food security as a significant concern in the door-to-door survey as 14.5% of respondents said it is Sometimes True that they couldn't afford to eat balanced meals, while 5.7% of respondents said it is Often True.

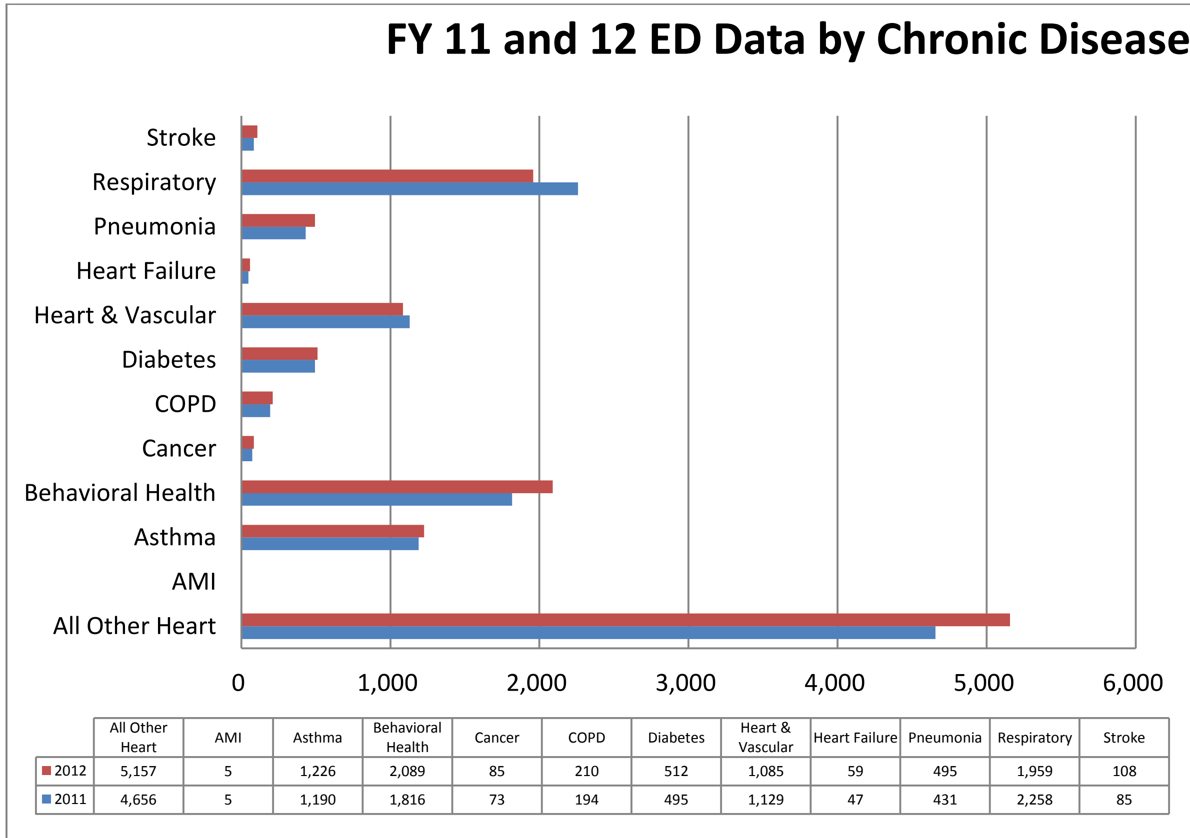
Indicators	Forsyth	Davie	Davidson	Benchmark/ Targets
RWJ Indicators				
% Fast Food Restaurants	46.60%	46.70%	38.90%	25%
Air Pollution- Particulate Matter Days	1	na	1	0
Air Pollution- Ozone Days	10	11	6	0
Recreational Facility Rate per 100K	15.30	4.8	12.6	

E) NCBH Data

As a tertiary/quaternary medical center, NCBH serves a large geographic area that includes nineteen North Carolina counties. The majority of the population served resides within a six-county primary service area including Forsyth County and thirteen county secondary service area. Provided below is comparison of the demographics of Forsyth County and NCBH's primary and secondary service areas as compared to the patient population served by NCBH.

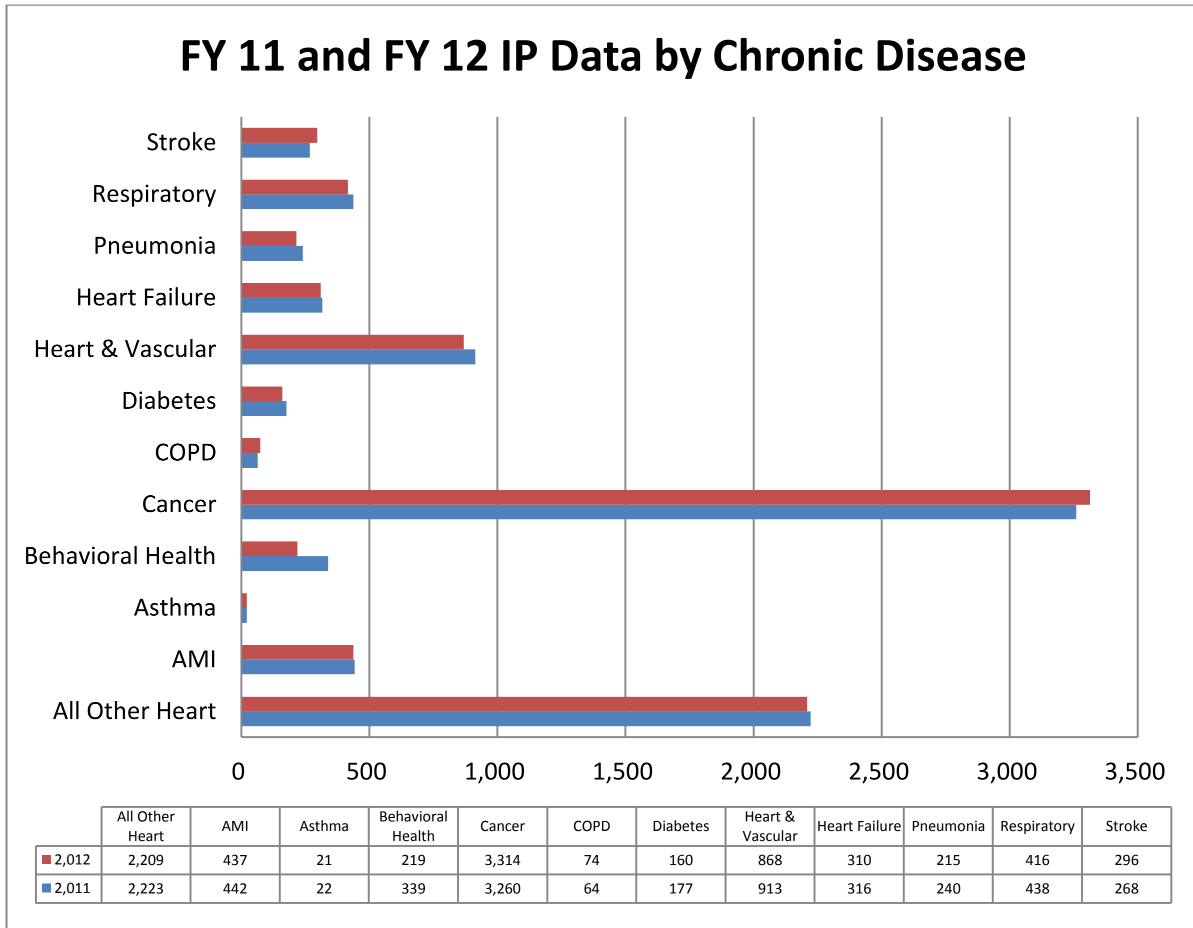
Demographic	**Forsyth County**			**Primary Service Area-Forsyth, Davie, Davidson, Stokes, Surry, Yadkin**			**Total 19 County Service Area**		
	Population	**Market Discharges**	***NCBH Discharges***	**Population**	**Market Discharges**	***NCBH Discharges***	**Population**	**Market Discharges**	***NCBH Discharges***
Total Population	380,328	43,142	*13,192*	726,700	86,729	*21,603*	2.29 mil	260,666	*32,856*
Age,%									
0-17	24.7%	15.4%	*13.7%*	24.2%	3.8%	*13.6%*	23.7%	13.2%	*14.8%*
18-44	35.8%	24.2%	*19.8%*	34.5%	22.6%	*18.8%*	35.3%	23.4%	*19.3%*
45-64	26.6%	25.3%	*34.7%*	27.4%	26.2%	*34.3%*	27.0%	26.1%	*33.5%*
65+	12.9%	35.0%	*31.9%*	13.9%	37.4%	*33.3%*	13.9%	37.3%	*32.4%*
Race/Ethnicity,%									
Native American	0.4%	0.2%	*0.2%*	0.4%	3.9%	*0.2%*	0.4%	1.9%	*0.2%*
Asian	2.0%	0.7%	*0.5%*	1.4%	0.7%	*0.5%*	2.1%	0.9%	*0.7%*
Black	24.8%	30.1%	*42.7%*	15.9%	18.4%	*29.5%*	16.5%	18.0%	*25.1%*
White	63.2%	62.2%	*50.8%*	74.4%	72.0%	*64.9%*	74.5%	74.5%	*69.4%*
Other/Unknown	9.6%	6.8%	*5.8%*	7.9%	5.0%	*4.8%* 0%	6.5%	4.6%	*4.7%* 0%

For this assessment, NCBH also reviewed its inpatient admissions and emergency department visits for fiscal years 2011 and 2012 by chronic disease to understand utilization trends and to specifically review the self-pay/uninsured population. Specifically, the primary diagnoses of AMI, asthma, behavioral health, cancer, COPD, diabetes, all heart including heart failure, respiratory/pneumonia and stroke were reviewed. As the table below depicts, Heart disease represents the highest number of ED visits for chronic disease followed by respiratory disease and behavioral health.



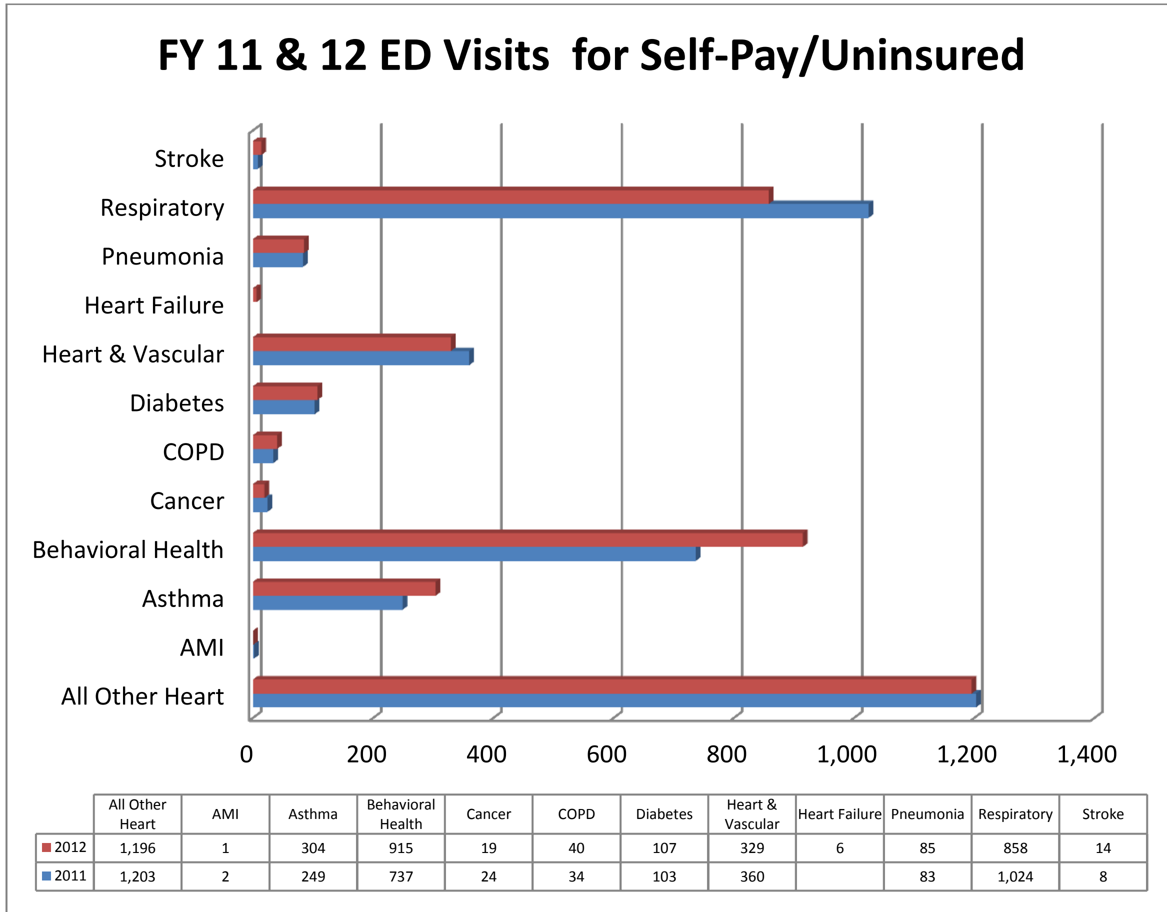
	All Other Heart	AMI	Asthma	Behavioral Health	Cancer	COPD	Diabetes	Heart & Vascular	Heart Failure	Pneumonia	Respiratory	Stroke
2012	5,157	5	1,226	2,089	85	210	512	1,085	59	495	1,959	108
2011	4,656	5	1,190	1,816	73	194	495	1,129	47	431	2,258	85

The table below depicts inpatient admissions for NCBH, which shows that Cancer and Heart admissions continue to be leading chronic disease diagnoses leading to admission, which is consistent with Forsyth County mortality and morbidity data.



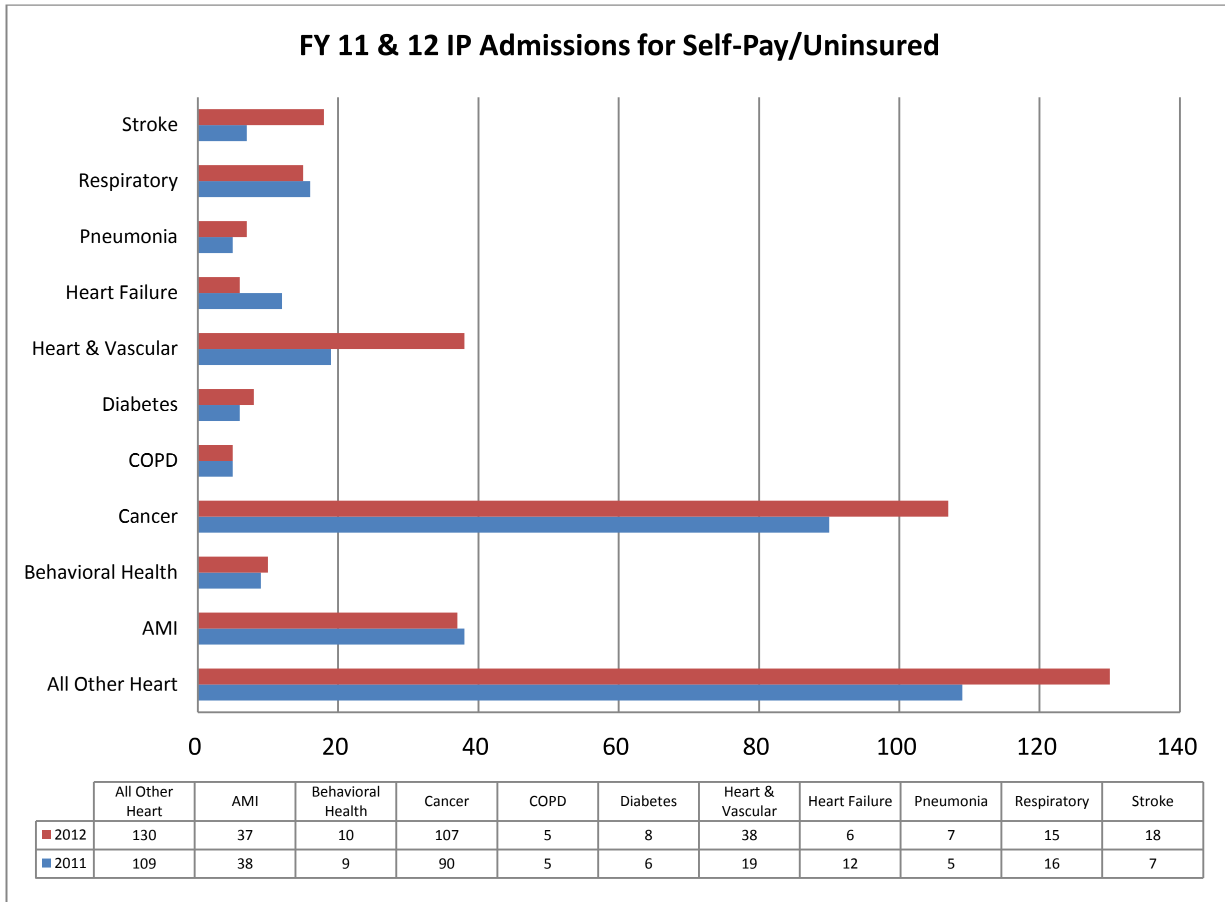
	All Other Heart	AMI	Asthma	Behavioral Health	Cancer	COPD	Diabetes	Heart & Vascular	Heart Failure	Pneumonia	Respiratory	Stroke
2,012	2,209	437	21	219	3,314	74	160	868	310	215	416	296
2,011	2,223	442	22	339	3,260	64	177	913	316	240	438	268

When the NCBH data is further reviewed by the self-pay/uninsured payer category, the data depicts that heart, respiratory and behavioral health continue represent the highest number of ED visits. However, it should be noted that over 50% of the total Behavioral Health ED visits are for the uninsured and over 43% of the total respiratory visits were for the uninsured.



	All Other Heart	AMI	Asthma	Behavioral Health	Cancer	COPD	Diabetes	Heart & Vascular	Heart Failure	Pneumonia	Respiratory	Stroke
2012	1,196	1	304	915	19	40	107	329	6	85	858	14
2011	1,203	2	249	737	24	34	103	360		83	1,024	8

The Self-Pay/ Uninsured inpatient data demonstrates similar trends to the total payer population, with heart and cancer representing the top admitted chronic disease diagnoses. However, there are a higher proportion of uninsured AMI patients compared to the total.



	All Other Heart	AMI	Behavioral Health	Cancer	COPD	Diabetes	Heart & Vascular	Heart Failure	Pneumonia	Respiratory	Stroke
2012	130	37	10	107	5	8	38	6	7	15	18
2011	109	38	9	90	5	6	19	12	5	16	7

V. Selecting Priorities

Analysis of the quantitative and qualitative data described in Section IV provided data and findings for each of the nine categories of public health within Forsyth County. On March 26, 2012, forty five (45) people representing NCBH, Forsyth Medical Center, the Forsyth County Health Department, Forsyth Futures, healthcare providers, mental health, community members/leaders, education and the faith community leaders attended the CHNA priority setting meeting. All participants were randomly assigned into eight groups to prioritize the findings from the primary and secondary data. The criteria outlined below were utilized to assist in the ranking:

- Magnitude: Proportion of the population affected or vulnerable
- Expertise: The ability to lead, impact change
- Severity: Impact on morality, morbidity, disability and quality of life
- Intervention/ Effectiveness: Proven interventions exist that are feasible from a practical, economic, and political viewpoint
- Public Concern: Degree of public concern and/or awareness
- Urgency: Need for action based on degree and rate of growth; potential for affecting and amplifying other health or socioeconomic issues; timing for public awareness, collaboration and funding is present.

Based on the criteria, the significant community wide priorities are ranked as follows:

Community Wide Priorities
1. Physical Activity & Nutrition
2. Chronic Disease Prevention/Management
3. Maternal & Infant Health
4. Social Determinants of Health
5. Access To Care
6. Mental Health
7. Substance Abuse Prevention

The top four ranked priorities were identified as representing the most significant areas of community need, and county-wide planning teams have been established to provide focused attention and planning support for the following: 1) healthy lifestyles through physical activity and nutrition, 2) improvements in chronic disease prevention and management, 3) improvements in maternal and infant health, and 4) a need to educate the public on the social determinants of health.

NCBH conducted an inventory of its community sponsorships and support/intervention programs to further identify the significant priorities that were strategically aligned with the mission of the NCBH. Based upon NCBH's mission, the internal chronic disease data, and the inventory of programs and sponsorships, NCBH identified the following significant community-wide priorities for its current CHNA:

NCBH Priorities
1. Physical Activity & Nutrition
2. Chronic Disease Prevention/Management
3. Access To Care
4. Mental Health

Chronic Disease and Physical Activity and Nutrition were prioritized as the top priorities as NCBH currently serves a significant number of residents with chronic disease in its emergency department, outpatient clinics and in the inpatient setting. NCBH provides a number of activities and programs for the community that target chronic disease (including obesity) in Forsyth and surrounding counties. Access to Care was prioritized as well due to the fact that NCBH has a long history of providing and improving access to care for the self-pay/uninsured population. NCBH provides a significant amount of free and subsidized outpatient care through its Downtown Health Plaza clinic, located in zip code 27105 (a medically underserved zip code of Forsyth county). NCBH also chose to prioritize mental health since it was identified as one of the community-wide priorities and is an area of strategic priority for the hospital. In FY 12, over half of all behavioral health related emergency department visits were for the self-pay/uninsured population. As a result NCBH has dedicated resources to develop a solution with community partners to provide better treatment options for this population.

Maternal & Infant Health was not included in NCBH's top four prioritized health needs in its current CHNA because the hospital does not deliver babies in Forsyth County. Except in emergency situations, infants are delivered at Forsyth Medical Center, a tax exempt hospital located in Forsyth County. The Medical Center does collaborate with Forsyth Medical Center by staffing their obstetric department with Wake Forest University Health Sciences faculty and hospital residents. In addition, the Medical Center participates in the Infant Mortality Task force sponsored by the Forsyth County Health Department.

NCBH also chose not to pursue Social Disparities as a significant priority due to the need to focus resources on programs and activities that directly impact health as part of the hospital's mission. Social disparities are of communitywide concern and NCBH participates in a variety of community task forces include the HEAT (Health Equity Action Team) coalition sponsored by the Health Department and chaired by Dr. Sylvia Flack of Winston Salem State University. NCBH also supports the work of the Maya Angelou Center for Health Equity and Wake Forest Public Health Sciences, both of which study social disparities and focus on conducting translational research to impact population health, developing sustainable and mutually beneficial community partnerships and delivering educational initiatives to diversify the clinical, biomedical and public health workforce.

NCBH will continue to provide leadership and support within the Forsyth County community at a variety of response levels. Because the Medical Center serves the region and state, priorities may need to be adjusted rapidly to address an urgent or emergent need in the community, (i.e. disaster response or infectious disease issue). Other prioritized community needs will be determined based on the criteria below:

• Rapid Response - Emergency response to local, national, and international disasters, i.e. Haiti disaster, weather disasters – earthquake, blizzards, terrorist attack
• Urgent Response - Urgent response to episodic community needs, i.e. H1N1/ Flu response
• Sustained Response - Ongoing response to long-term community needs, i.e. obesity and tobacco prevention education, health screenings, workforce development
• Strategic Response - Long-term strategic leadership at legislative and corporate levels to leverage relationships to promote health-related policy or reform and build key networks

VI. Documenting and Community Results

The completion of this community health needs assessment marks a milestone in community involvement and participation with input from community leaders, the academic community, the general public, Forsyth County hospitals, and health experts. This report will be posted on the NCBH's website under the Community Benefits section (http://www.wakehealth.edu/Community-Benefits/2013/About-Community-Benefits.htm). Reports and data will also be shared with our community partners and community leaders as we work together to make a positive difference in our community by empowering and building healthy communities. Written copies of the report will also be available upon request for members of the public at no charge. As this is NCBH's initial CHNA report, written comments submitted by the public will be considered and included in NCBH's future CHNA analyses and report.

NCBH has also invested in web based software from Healthy Communities Institute (HCI) to help track all NC Healthy People 2020 indicators for Forsyth County that will be integrated into NCBH's public internet site. The software is designed to help local public health departments, hospitals and community coalitions to measure community health, share best practices, identify new funding sources and drive improved community health. The information will be used to promote transparency, best practice sharing, collaboration and civic engagement and will allow specifically for community tracking of the goals/impact outlined in the implementation strategy. HCI is also inclusive of tools available for performance measures that will be linked to public health interventions. NCBH believes the HCI software will allow for a meaningful way to measure and communicate progress with the general public and patients related to its CHNA.

VII. Planning for Action Monitoring and Progress

NCBH has identified the following available programs, activities and resources to address the significant health priorities. These activities and programs are currently in place and are accounted for /measured on an annual basis. Further review of current and new resources, programs and activities will be detailed in the CHNA's "Implementation Strategy.

Physical Activity, Nutrition and Chronic Disease Resources

1. Diabetes

NCBH will continue to enhance awareness and utilization of the Joslin Diabetes Center, which is recognized by the American Diabetes Association. Specifically, the Diabetes Healthsource Education program helps patients learn new ways to manage their diabetes with an increased self-efficacy. The program is recognized by the American Association of Diabetic Educators, and its diabetes educators (registered nurses and dietitians) specialize in working with people who are both diabetic and pre-diabetic. Services include expert medical supervision, education, counseling and compassionate support to help patients manage their disease and achieve maximum wellness. Diabetes HealthSource specialists work collaboratively with patients' physicians to ensure proactive medical care and early intervention strategies for any problems that may arise. Classes and programs are offered regularly to patients and community members:

Other diabetes-centered initiatives include the following:

- Continue diabetes education at hospital community outreach events (Share the Care DHP Health Fair, Day of Caring- AARP/Urban League, etc.). Continue Diabetes Education Classes- this is currently provided in a number of forums- 1) employer groups through Best Health (Best Health is the community wellness outreach program of Wake Forest Baptist Health and offer health lifestyle programs for children through seniors) , 2) Downtown Health Plaza patients, and 3) Joslin clinic patients.

2. Obesity

NCBH will continue to support Brenner Fit. Brenner Fit is one of the most comprehensive pediatric weight management programs in the country. Founded on the principles of behavior change and family-centered care, Brenner FIT aims to improve the health of children in North Carolina and beyond. Brenner FIT is delivered by a multi-disciplinary team of health care professionals providing research-based care of children and families with weight problems. The program is made up of pediatricians, behavioral counselors, dietitians, physical therapists, social workers, and exercise specialists. Together, they guide families to a healthier life. Brenner FIT is available to help all families who are seeking a healthier lifestyle. The outpatient clinic is available by referral to both English and Spanish speaking families. Group training is free and available to all members of the community. Brenner FIT (Families In Training) has the longest track record and the most experience in providing prevention and treatment programs for overweight and obese populations. Over the past five years, Brenner FIT has accomplished the following:

- Provided treatment for more than 500 children through the Brenner FIT Clinic, many of which are uninsured/underinsured, representing approximately 2000 different family members from our community
- Give over 150 community presentations, reaching an estimated audience of 25,000

- Published 30 journal articles, research papers, book chapters, and has been represented in multiple on-line medical resources
- Presented over 60 times to academic or clinical audiences
- Featured over 80 times in regional and national media
- Trained 15 students, fellows, and interns, in addition to developing a medical student workshop
- Developed 22 new programs focused on childhood obesity prevention and treatment

- Continue to provide an on-site Farmers Market for all NCBH employees from April – October each year to provide all employees with access to low cost fresh fruits and vegetables at least once a week.

- Continue to provide healthy lifestyle programs for NCBH employees- *It's My Life-Now or Never* sponsored by Action Health, a NCBH program that provides resources to employees that focuses on many chronic diseases. Some examples include programs for pre-diabetic prevention and diabetic maintenance, programs providing tips for lowering blood pressure, decreasing cholesterol, and preventing heart diseases, as well as, evidence-based tips that can help reduce your risk of cancer and/or improving overall health. These 12 week programs offer weekly education meetings, individual fitness and nutrition assessments, free membership to the Fitness Center at CompRehab, and group support from others striving for the same goals. The cost of the program is $40 and space is limited to 15 participants during each session.

- Continue to increase awareness of the Downtown Health Plaza (DHP) Community Garden, which is a collaboration with the Forsyth County Cooperative Extension. Through this program, DHP provides free, fresh fruits and vegetables to its patients, primarily in the Summer and early Fall months.

3. <u>Cardiovascular</u>

NCBH provides education to the community about risk factors associated with heart disease and stroke; these activities will continue to be provided through NCBH's Heart Center, Best Health, and Action Health initiatives for employer groups, civic organizations, etc.

- Continue to provide heart and stroke *lunch and learns* to educate the public on signs, symptoms, prevention and treatment of heart attacks and stroke.

- Continue to sponsor heart-related screenings each year including: free EKG screenings, Heart Health talks, free community CPR classes, and heart and stroke prevention classes at health fairs and county government worksites.

- Continue to be a proactive participant in Forsyth County YMCA Health Fairs. A representative from NCBH's Heart Center provides information about heart disease, stroke, and other cardiac illnesses.

4. <u>Cancer</u>

NCBH continues to be market leader in inpatient cancer care and supports community cancer prevention outreach with several programs. NCBH will continue to provide the services outlined below:

- Continue to provide education on the hazards of smoking specific to lung cancer (as well as stroke and heart disease) though community outreach events such as “Share the Care” health fair, etc. and through BestHealth and the Speakers Bureau.
- Continue to provide the annual free skin cancer screening in July of each year at the Country Club Dermatology clinic.
- Support Action Health’s six week “Freedom from Smoking Class” for employees to encourage smoke free living.
- Support the development of new programs to help promote cancer prevention including NCBH’s Inpatient Smoking Cessation initiative to eliminate tobacco use by patients, visitors, contractors, students, and employees.

5. <u>Other</u>

Continue to explore, in collaboration with the Northwest Community Care Network and Centerpointe, an innovative population health approach of prospectively identifying and managing the dually eligible – Medicare and Medicaid population in Forsyth County to improve behavioral and chronic disease health. The population managed includes significant amounts of heart disease, diabetes and obesity. The goals of the CarePlus are to improve the quality of life, as well as increases in primary care utilization and reduction of Emergency Department visits and 30-day hospital readmissions.

Behavioral Health/Mental Health Programming

NCBH recognizes the overlap of mental, medical and social disparities and the important role of behavioral health in treating the whole person. NCBH will continue to support the following programs and activities:

- Continue to Support CareNet- Provides mental health screenings and services to the uninsured and underinsured across a broad region. This includes integrated behavioral health services at five clinics located in Forsyth County and surrounding areas.
- Continue the development of a community based behavioral health ED care strategy in collaboration with Forsyth Medical Center and Northwest Community Care Network. NCBH is working on the development of an ED care plan for those patients that are "shared" between both facilities; strategies include- increased ease of access for Centerpointe LME (the local mental health agency) employees on the NCBH psych unit & in the ED; potential housing options for the homeless; after hours telephone protocols; community pharmacies; and development of a wet shelter for substance abuse issues.

- Continue to support the implementation of a behavioral health pilot project in NCBH primary care community practices- In partnership with Northwest Community Care Network, three primary care practices- Peace Haven; Family Medicine Foothills and Wilkes are targeted. The pilot funds a full time Care Ambassador to screen for substance abuse issues as part of his primary care medical home and a referral for services when a need is identified. The pilot began January 2013 and to date has screened over 800 patients.

- Continue to support the "Homeless Opportunities & Treatment (HOT) Project with Samaritan Ministries. NCBH provides staffing support to a mental health clinic designed to help homeless people stabilize their mental health. The HOT project provides free medication and counseling to a primarily uninsured population.

- Continue to support the CarePlus population management model for dually eligible Medicare and Medicaid patients to treat and manage behavioral health in coordination with chronic disease management; this model is in partnership with Centerpoint and Northwest Community Care Network.

- Continue to support annual community conference "Bringing Advance Care Planning: New Initiative for North Carolina". The annual conference on patient-centered advance care planning is designed to educate and engage physicians, nurses, social workers, clergy and other health professionals on engaging patients in advance care planning as part of a coordinated/comprehensive system of care.

Access to Affordable Health Care
With coverage expansion on the horizon, NCBH will continue to evaluate the need for expanded primary care and access issues. Current access strategies include:

- Continue support of Downtown Health Plaza- NCBH is specifically responsive to the needs of the Medicaid and uninsured community and provides $4 million in subsidy funding for the Downtown Health Plaza (DHP), a Level 3 NCQA site and National Health Service Corp site. DHP serves approximately 70,000 patients visits per year – 32,000 adults, 29% of which are self-pay; 20,000 are OB/GYN patient, 51% are self-pay; and 18,000 pediatric patients, 3% of which are self-pay. Many of the patients are self-pay and managing chronic diseases such as diabetes, kidney failure and heart failure. DHP provides significant benefit to the community through the following initiatives: Collaboration with Northwest Community Care Network with onsite pediatric and internal medicine case manager; participation as a WIC site; provides a community garden providing fresh vegetables and herbs to patients; hosting a free food pantry to patients; offering a co-located mental health counselor for children in partnership with The Children's Home; and a co-located parent educator program in partnership with Imprints to help families address developmental delays.

- Continue to support the "Share the Health" FREE Health Fair at DHP – this event provides free health screenings and other health-related services to adults and children regardless of age, insurance coverage, income level or immigration status. The health fair serves approximately 650 children and adults on an annual basis.

- Continue to support the DEAC Clinic at the Community Care Center whose mission is to provide free high quality health care to underserved individuals. Through this program, approximately 19,000 patient visits per year within the Piedmont Triad Area receive care. NCBH medical students provide free medical care once a week to the Community Care Center's uninsured patients. Services include
    - Specialty nights including: cardiology, pulmonary, dermatology, sports medicine
    - Blood work on-site and outside labs
    - Free medications on-site
    - Social services
    - Mental health and STI screening
    - Community wellness and prevention

Exhibit 1

CHA Primary Data Working Group

Ayo Ademoyero *FC Department of Public Health*	Alana James *United Way*	Sara Quandt *WF Public Health Sciences*
Betty Alexander *Community*	Jocelyn Johnson *WF Baptist Medical Center*	Solomon Quick *WS Police Department*
Jennie Anthony *YMCA*	JaNae Joyner *WF Baptist Medical Center*	Vera Robinson *Community*
Alain Bertoni *WF Baptist Medical Center*	Heidi Krowchuk *UNC Greensboro*	Jennifer Staten *FC Department of Public Health*
Sheila Bogan *FC Department of Public Health*	Andrea Kurtz *United Way*	Quintana Stewart *FC Department of Public Health*
Monica Brown *Downtown Health Plaza*	Debbie Mason *FC Department of Public Health*	Tina Telda *WSSU Student Intern*
Brenton Edwards *UNCG Student Intern*	Lynne Mitchell *FC Department of Public Health*	Beverly Tucker *WF Baptist Medical Center*

Madison Gattis *WFU Student Intern*	Doris Paez *Forsyth Futures*	Sabrina Vereen *WS State University*
Mayte Grundseth *FC Department of Public Health*	Linda Petrou *Wake Forest University*	Mary Lynn Wigodsky *CHANGE*
Jennifer Houlihan *WF Baptist Medical Center*	Linda Preschle *Community*	Carol Wilson *Family Services Inc*
Lashun Huntley *FC Department of Public Health*	Regina Pulliam *UNC Greensboro*	

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Faye Cobb *WS State University*	Lynne Mitchell *FC Department of Public Health*	Carol Wilson *Family Services, Inc*

Community Health Opinion Survey Administrators

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Brian Perry	Keisha Hayes	Quintana Stewart
Brittany Crump	Lara Hendy	Rodd Smith
Carrie Worsley	Lashonda Ouk	Ryan Harrison
Collette Chalmers	Lashun Huntley	Shana Gary
Cynthia W. Jeffries	Lori Pelletier	Sharon Correll
Danila Hutcherson	Lynne Mitchell	Sheila Bogan
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Erica Phillips	Malikah Planas	Veronica Luna
Gabrielle Roper	Marisol Quiroz	Whitney McNeely
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Volunteers from FC Department of Health; WSSU, UNCG & WFU Student Interns and Community

Youth Risk Behavior Survey Facilitators

(*Volunteers from FC Department of Health; UNC Greensboro; Wake Forest Baptist Medical Center; YMCA; Downtown Health Plaza; Gramercy Research Group; WSSU, UNCG & WFU Student Interns and Community Volunteers.)*

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Angela Sheek

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Angie Weavil

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Carla Day

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Carolyn Marcus

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Monica Brown

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Natasha Gonzalez

Patrice Toney

Pattie Sacrinty

Phyllis D'Agostino

Quilla Smith

Quintana Stewart

Rod Smith

Rolanda Coleman

Ryan Harrison

Sandra Miller

Sandra Rivera

Scotty Woods

Shana Gary

Sharon Roberts

Stephanie Smith

Susan Fuller

Tammy Sorendo

Tina Tedla

Ethel Whitt

Faith Lockwood

Gabrielle Roper

Grace Hughes

Heather Sevy

Heidi Krowchuk

Lynn Kelly

Lynne Mitchell

Madison Gattis

Mary Ann Blackwell

Mayte Grundseth

Meghan Sharp

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Priority Setting Exercise Attendees

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Cynthia W. Jeffries *FC Department of Public Health*	Katisha Blackwell *My Aunt's House*	Rolanda Coleman *FC Department of Public Health*
Curt Hazelbaker *YMCA*	Kismet Loftin-Bell *The Shalom Project*	Sandra Clodfelter *FC Department of Public Health*
Dan Kornelis	Linda Darden	Sheila Bogan

Forsyth County Housing	*Hospice & Palliative Care*	*FC Department of Public Health*
Debbie Mason *FC Department of Public Health*	Linda Petrou *Chair, Board of Health*	Suzana McCalley *The Shalom Project*
Deborah Dickerson *Community*	Lynne Mitchell *FC Department of Public Health*	Tamara Smith *Forsyth Medical Center*
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