



Novant Health Presbyterian Medical Center

Community Health Needs Assessment

Mecklenburg County, North Carolina

2016-2018

Approved by the Novant Health Southern Piedmont Region Board of Directors on October 26, 2016

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I. Introduction

Novant Health Presbyterian Medical Center, in partnership with the Mecklenburg County Health Department and other community partners established a community health needs assessment in 2013 to identify the most pressing health needs in our community. Novant Health Presbyterian Medical Center will enhance the community's health by offering health and wellness programming, clinical services and financial support in response to the specific health needs identified.

a. Organization Overview

Novant Health Presbyterian Medical Center is an integral part of the Novant Health system (collectively known as "Novant Health"). Novant Health is a non-profit integrated health care system of 14 medical centers and a medical group with over 500 clinic locations. Other facilities and programs include outpatient surgery and diagnostic centers, charitable foundations, rehabilitation programs, and community health outreach programs. Novant Health and its affiliates serve their communities with programs including health education, home health care, prenatal clinics, community clinics and immunization services. Novant Health's over 25,000 employees and physician partners care for patients and communities in North Carolina, Virginia, South Carolina and Georgia.

Mission

Novant Health exists to improve the health of our communities, one person at a time.

Our employees and physician partners strive every day to bring our mission, vision and values to life. We demonstrate this commitment to our patients in many different ways. Our organization:

- Maintains an active community health outreach program.
- Demonstrates superior outcomes for many health conditions as indicated by our state and national quality scores.
- Creates innovative programs that address important health issues, with many of our programs and services being recognized nationally.
- Believes in its role as a good corporate citizen, working with community agencies and organizations to make our communities better places to live and work.

Novant Health Presbyterian Medical Center (NHPMC) serves as a regional facility with the latest in diagnostic and treatment services. Presbyterian is a leader in providing specialized care to patients with cancer and heart disease. The 622 bed hospital also provides maternity care and specialized neonatal intensive care to infants.

Novant Health Hemby Children's Hospital is located within Novant Health Presbyterian Medical Center. The hospital provides compassionate care in a family-centered environment. Large patient rooms include a parent bed and other conveniences that allow families to be comfortable during their child's hospital stay. Other features include a colorful playroom, outdoor playground, activities for children led by a child-life specialist and a pediatric intensive care unit specializing in the care of critically ill children.

b. Our Community

Primary and Secondary Service Areas

Mecklenburg County contains seven municipalities including the City of Charlotte, and the towns of Cornelius, Davidson, Huntersville, Matthews, Mint Hill and Pineville. According to the U.S. Census Bureau 2014 population estimate, Mecklenburg County’s population increased 10.1% to 1,012,539 making Mecklenburg County the most populated and densely populated county in North Carolina.

The Primary Service Area for Novant Health Presbyterian Medical Center is defined by the zip codes that represent 75% to 85% of the hospital’s in-patient population as outlined below:

Zip Code	City	County	Zip Code	City	County
28031	Cornelius	Mecklenburg	28078	Huntersville	Mecklenburg
28134	Pineville	Mecklenburg	28204	Charlotte	Mecklenburg
28203	Charlotte	Mecklenburg	28207	Charlotte	Mecklenburg
28206	Charlotte	Mecklenburg	28210	Charlotte	Mecklenburg
28209	Charlotte	Mecklenburg	28213	Charlotte	Mecklenburg
28212	Charlotte	Mecklenburg	28216	Charlotte	Mecklenburg
28215	Charlotte	Mecklenburg	28270	Charlotte	Mecklenburg
28227	Charlotte	Mecklenburg	28273	Charlotte	Mecklenburg
28262	Charlotte	Mecklenburg	28277	Charlotte	Mecklenburg
28269	Charlotte	Mecklenburg	28036	Davidson	Mecklenburg
28105	Matthews	Mecklenburg	28214	Charlotte	Mecklenburg
28202	Charlotte	Mecklenburg	28217	Charlotte	Mecklenburg
28205	Charlotte	Mecklenburg	28226	Charlotte	Mecklenburg
28208	Charlotte	Mecklenburg	28278	Charlotte	Mecklenburg
28211	Charlotte	Mecklenburg			

The Primary Service Area includes the City of Charlotte and the Towns of Cornelius, Davidson, Pineville, Huntersville and Matthews which are all located in Mecklenburg County. The Secondary Service Area for Novant Health Presbyterian Medical Center includes counties in both North Carolina and South Carolina that are beyond Mecklenburg County proper. These areas (outlined below) include Alexander, Cabarrus, Gaston, Iredell, Lancaster, Lincoln, Rowan, Union, and York Counties.

Zip Code	City	County	Zip Code	City	County
28678	Stony Point	Alexander	28092	Lincolnton	Lincoln
28107	Midland	Cabarrus	28080	Iron Station	Lincoln
28027	Concord	Cabarrus	28037	Denver	Lincoln
28075	Harrisburg	Cabarrus	28168	Vale	Lincoln
28083	Kannapolis	Cabarrus	27013	Cleveland	Rowan
28124	Mount Pleasant	Cabarrus	28138	Rockwell	Rowan
28025	Concord	Cabarrus	28146	Salisbury	Rowan
28081	Kannapolis	Cabarrus	27054	Woodleaf	Rowan
28021	Cherryville	Gaston	28023	China Grove	Rowan
28052	Gastonia	Gaston	28144	Salisbury	Rowan
28101	McAdenville	Gaston	28147	Salisbury	Rowan
28164	Stanley	Gaston	28071	Gold Hill	Rowan
28012	Belmont	Gaston	28088	Landis	Rowan
28034	Dallas	Gaston	28125	Mount Ulla	Rowan
28056	Gastonia	Gaston	28159	Spencer	Rowan
28006	Alexis	Gaston	28079	Indian Trail	Union
28016	Bessemer City	Gaston	28110	Monroe	Union
28032	Cramerton	Gaston	28103	Marshville	Union
28054	Gastonia	Gaston	28173	Waxhaw	Union
28098	Lowell	Gaston	28104	Matthews	Union
28120	Mount Holly	Gaston	28112	Monroe	Union
28115	Mooresville	Iredell	28174	Wingate	Union
28660	Olin	Iredell	29708	Fort Mill	York
28117	Mooresville	Iredell	29730	Rock Hill	York
28166	Troutman	Iredell	29733	Rock Hill	York
28625	Statesville	Iredell	29743	Smyrna	York
28677	Statesville	Iredell	29710	Clover	York
28634	Harmony	Iredell	29717	Hickory Grove	York
28689	Union Grove	Iredell	29734	Rock Hill	York
29058	Heath Springs	Lancaster	29704	Catawba	York
29722	Lancaster	Lancaster	29715	Fort Mill	York
29067	Kershaw	Lancaster	29726	McConnells	York
29720	Lancaster	Lancaster	29732	Rock Hill	York
29707	Fort Mill	Lancaster	29742	Sharon	York
28033	Crouse	Lincoln	29745	York	York

Population

Mecklenburg County is the center of the country's fifth largest urban area with over seven million people living within a 100-mile radius. The county consists of a large urban center surrounded by smaller, more rural communities.

Mecklenburg County Population by Race & Ethnicity (2014)

	Mecklenburg County	North Carolina
Population Estimate	1,012,539	9,943,964
Persons Under 5 Years, percent 2014	7.0%	6.1%
Persons Under 18 Years, percent 2014	24.6%	23.0%
Person 65 Years & Over, percent 2014	10.0%	14.7%
Female Persons, percent 2014	51.9%	51.3%
White Alone, percent 2014	59.2%	71.5%
Black/African-American Alone, percent 2014	32.2%	22.1%
American Indian & Alaska Native Alone, percent 2014	0.8%	1.6%
Asian Alone, percent 2014	5.5%	2.7%
Native Hawaiian & Other Pacific Islander Alone, percent 2014	0.1%	0.1%
Two or More Races, percent 2014	2.2%	2.1%
Hispanic or Latino, percent 2014	12.7%	9.0%

Source: U.S. Census Bureau (2014).

Children and adolescents make up over one-third (31.6%) of the population in Mecklenburg County, while seniors only make up 10% of the population.¹ From 2010 to 2020, the population of Mecklenburg County is projected to grow by 24%. North Carolina's population is projected to grow by 11% during the same time period. Over the next 15 years, it is expected that persons age 65 and older will be the fastest growing segment of Mecklenburg County's population. Non-white minorities currently make up over one-half (53.5%) of the racial demographic in Mecklenburg County.

¹ U.S. Census Bureau (2015). State & County QuickFacts. <http://quickfacts.census.gov/qfd/states/37/3712000.html>

Median Income by Educational Attainment		Population Educational Attainment (≥ 25 yrs old)		Poverty Rate by Educational Attainment	
> High School diploma	\$18,257	< HS diploma/GED	11.2%	Less than high school graduate	31%
High school Graduate	\$24,797	HS diploma/GED	18.7%	High school graduate (includes equivalency)	16%
Some college or associate's degree	\$30,462	Some college or associate's degree	28.2%	Some college, associate's degree	12%
Bachelor's degree	\$50,510	Bachelor's degree	28.3%	Bachelor's degree or higher	5%
≥ Graduate or professional degree	\$67,022	≥ Graduate degree	13.6%		

Source: Mecklenburg County 2015 Community Pulse

Mecklenburg County residents with graduate or professional degrees earn a median income that is 2.5 times higher than the median income for someone with only a high school education.² According to the U.S. Census 2009-2013 data, the median household income in Mecklenburg County is \$55,444. A key indicator to evaluate economic condition of Mecklenburg County is the poverty rate. The poverty rate for Mecklenburg County residents decreases as the amount of education increases, with 26% gap in poverty between residents who are not high school graduates and residents who have a bachelor's degree or higher.

II. Assessment

The following are excerpts and findings from the 2013 Mecklenburg County Community Health Assessment. To access the full report, please visit

<http://charmeck.org/mecklenburg/county/healthdepartment/healthstatistics/documents/2013%20mecklenburg%20cha%20feb%207.pdf>

a) Collaborative community partners

Local Health Departments in North Carolina are required to conduct a comprehensive community health needs assessment to maintain local health department accreditation. In Mecklenburg County, the 2013 Community Health Assessment (CHA) was led by a multidisciplinary collaboration of an established Advisory Groups, which contains representatives from community organizations including Novant Health Presbyterian Medical Center and Carolinas Healthcare System. The assessment process is led and coordinated by the Epidemiology Program of the Mecklenburg County Health Department. As part of this assessment process, special attention was paid to the needs of the underserved. The process emphasized collaboration among community partners to improve the overall health of the community.

The assessment process was initiated by the Mecklenburg County Health Department (MCHD),

² Mecklenburg County: Community Pulse 2015.

<http://charmeck.org/mecklenburg/county/CountyManagersOffice/Documents/2015%20Mecklenburg%20County%20Community%20Pulse%20Report.pdf>

community not-for-profits, Mecklenburg County Schools, other city/county agencies and community members. Novant Health Presbyterian Medical Center and Carolinas Healthcare System were also invited to participate in the process. To ensure input from public health professionals, leaders of medically underserved communities, and persons with broad knowledge of the community, invitations were distributed to a large number of individuals and community groups (See Appendix A for a complete list of agencies that were represented on the Community Health Needs Advisory Committee. Please see <http://charmeck.org/mecklenburg/county/healthdepartment/healthstatistics/documents/2013%20mecklenburg%20cha%20feb%207.pdf> for a listing of individual participant names).

b) Solicitation

We solicited input from persons who represent the broad interest of Mecklenburg County, NC, including Hispanics, persons living in poverty and those without a high school degree. A targeted distribution of paper surveys was utilized in an effort to reach areas of the population that may not have received the email survey, or did not have access to a computer. Paper copies were distributed at the following locations: Care Ring, Ada Jenkins, Bethesda Health Center, Our Lady of Guadalupe, Hispanos Saludables, Carolina Regional AIDS Interfaith Network (RAIN), Supportive Housing Communities, four senior centers and at various churches and events in the county. Through both online and paper surveys, participants surveyed accurately represented the Mecklenburg County demographic population. Areas identified in gaps in the data sampling included an underrepresentation in males and the Asian population.

c) Data collection and analysis

Primary data

The Community Health Opinion Survey

With guidance from the CHA Advisory Group, the MCHD Epidemiology program developed a health opinion survey for Mecklenburg County residents. Input for the survey was solicited from a variety of leaders in city and county government, community-based organizations, foundations, churches, colleges/universities, coalitions and other social service agencies. The leaders of these organizations are experts in public health, minority populations, health, health disparities, and social services. Survey questions focused on beliefs and barriers to certain health behaviors.

The CHA Health Opinion Survey was available to Mecklenburg County residents from April 15, 2013 to June 30, 2013. Surveys were administered electronically through SurveyMonkey™ and in paper copy in both English and Spanish. Surveys were made available to community groups and neighborhoods representing the medically underserved to ensure that participants surveyed represented the medically underserved, uninsured, low-income and minority populations. Participants surveyed accurately represented the demographic population of Mecklenburg County:

- 1,888 residents completed the surveys
- 66.0% female; 34.0% male
- 31.2% identified as African-American; 12.9% identified as non-white Hispanic/Latino
- 18.9% ages 65+
- 6.8% less than high school graduate; 9.4% high school graduate or equivalent, 36.7% associates or bachelor's degree, 29.0% advanced college degree.

Areas identified as gaps in the quantitative data sampling included an underrepresentation in males and the Asian population.

Secondary data

Along with the outlined primary data, secondary data was collected from other sources and reviewed. Health data was gathered and analyzed from the following sources:

- North Carolina State Center for Health Statistics
- NC Disease Event Tracking and Epidemiologic Collection Tool (DETECT)
- County Health Data Books
- Vital Statistics
- National Center for Health Statistics
- Health Indicator Warehouse
- Surveys
- Community reports and focus groups

III. Identification & Prioritization of Health Needs

a) Identified Significant Health Needs

From participant responses, it was apparent that mental health, chronic disease prevention, access to care and violence prevention were the most important concerns of Mecklenburg County residents. Other key data points included:

- When asked to identify specific health behaviors residents are trying to change, respondents identified 1) eating or drinking healthier foods (89.7%), 2) being more active (84.5%), 3) managing stress (50.1%), 4) reducing chances for injury (33.2%), and 5) limiting alcohol consumption (11.8%).
- When asked to identify the greatest health related concerns, respondents identified 1) none (62.6%), 2) some or all family members without health insurance (30.4%), 3) irregular dental care because of cost (30.2%), 4) irregular eye exams/new glasses because of cost (22.0%), and costs related to being underinsured (15.8%).
- When asked to identify things that could help residents who smoke to stop smoking, respondents identified 1) access to nicotine substitutes (26.7%), 2) support group/cessation classes (22.5%), 3) access to medications (19.4%), 4) free 24-hour help line/Quitline (14.8%), and 5) tobacco free policy at my workplace (14.4%).
- When collectively reviewing all the responses, residents identified the community's greatest health issues as mental health (55.6%), chronic disease prevention (55.6%), access to care (50.5%), violence prevention (46.5%), substance abuse prevention (43.8%), healthy environment (41.3%), sexual behavior (26.6%), injury prevention (23.0%), and maternal and child health (21.5%).

b) Prioritization

On October 25, 2013, 117 individuals representing diverse number of community agencies and groups attended a formal CHA Priority Setting meeting. Participants were asked to score identified health issues after viewing a presentation on data specific to the nine priority areas. The nine priority areas are listed as follows:

- 1) Access to Care
- 2) Chronic Disease and Disability
- 3) Environmental Health
- 4) Injury
- 5) Maternal Child Health
- 6) Mental Health
- 7) Responsible Sexual Behavior
- 8) Substance Abuse
- 9) Violence

Participants then scored the areas from 1 (least weight) to 10 (most weight) using the following five criteria: magnitude, severity, intervention effectiveness, public concern and urgency. The calculated scores were used to rank the focus areas, and the weighted rankings from the community opinion surveys and the priority focus exercise were combined with the following results:

- 1) Chronic Disease and Disability
- 2) Mental Health
- 3) Access to Care
- 4) Violence
- 5) Substance Abuse
- 6) Environmental Health
- 7) Maternal Child Health
- 8) Responsible Sexual Behavior
- 9) Injury

Recommended Prioritized Health Outcomes

For each of the identified areas, recommendations were made for the top four prioritized health needs. Below is a summary of those recommendations:

- *Preventing Chronic Disease and Disability:* increase opportunities for physical activity through safe community spaces, improve access to healthy foods and food choices, create policies to support increased physical activity and healthier food choices, increase access to healthcare providers.
- *Mental Health:* work to decrease stigma associated with seeking mental health care, promote communication and collaboration among healthcare providers, promote mental health first aid, and limit access to firearms.
- *Access to Care:* address barriers to access other than funding such as transportation, non-traditional hours, cultural competence, health literacy awareness and training, improved and reliable funding for free or low cost health services, and improved communication and awareness of services and how to access them.
- *Violence Prevention:* change norms regarding violence, promote efforts that help create community bonds, expand community partnerships, begin violence prevention education at the pre-K level, increase after school activities to keep kids active and engaged, use violence assessment tools to ensure consistent messages to encourage healthcare professionals to ask about safety at each encounter, increase awareness of the importance of reporting child abuse, and increase efforts to address domestic violence.

Facility prioritization

In addition to the community rankings, Novant Health Presbyterian Medical Center reviewed the top five diagnosis codes for inpatient and outpatient hospital emergency room visits year-to-date January – July 2015.

Novant Health Presbyterian Medical Center Emergency Department
Top 5 Diagnoses YTD Jan-July 2015

Inpatient		Outpatient	
Diagnosis	Volume	Diagnosis	Volume
Urinary Tract Infection, NOS	89	Acute URI NOS	1361
Asthma NOS w (ac) exac	76	Chest Pain NOS	979
Chest Pain NEC	65	Urinary Tract Inf NOS	834
Chest Pain, NOS	34	Chest Pain NEC	692
Fever, NOS	20	Vomiting alone	721

A review of the hospital emergency room visits indicated that many of the top inpatient diagnosis codes are correlated with chronic issues affecting the aging population and common symptoms related to respiratory conditions and heart disease. Upon analysis of the outpatient diagnosis codes, it was apparent that many of the patients seen had symptoms that could be related to a number of chronic conditions, including (but not limited to) heart disease, diabetes and chronic issues related to aging.

Upon a comprehensive review of the community’s recommended prioritized outcomes and NHPMC’s ED top 5 diagnosis codes, the Novant Health Presbyterian Medical Center leadership team and Board of Trustees evaluated this information based on the scope, severity, health disparities associated with the need, and the estimated feasibility and effectiveness of possible interventions. Through this thorough evaluation, the team agreed on the following top five significant health priorities for Novant Health Presbyterian Medical Center:

1. Diabetes
2. Obesity
3. Other Chronic Diseases
4. Infant Mortality
5. Mental Health

IV. Addressing needs

Novant Health Presbyterian Medical Center is diligently working to address each of the identified areas of need through resource allocation and support of the following programs:

Diabetes:

- Diabetes (A1C) community screenings
- Diabetes prevention classes
- Diabetes education

Obesity:

- Body Mass Index screening
- Community education

Other Chronic Diseases:

- Community health education
- Cancer wellness and prevention classes
- Community-based clinical breast exams

Maternal and Infant Health:

- Community education on healthy pregnancy and prepared childbirth
- Breastfeeding education and advocacy

Mental Health:

- Community education programs

In addition to the programs and services offered to the community through Novant Health Presbyterian Medical Center, there are several existing community assets available throughout the Mecklenburg County community that have additional programs and resources tailored to meet all of the identified health needs. The following is a list of those existing community assets:

Health Needs	Local Community Resources Addressing Needs
<ul style="list-style-type: none"> - <i>Access to care</i> - <i>Chronic disease and disability</i> - <i>Maternal and infant health</i> - <i>Responsible sexual behavior</i> 	<ul style="list-style-type: none"> • CW Williams Health Center • Charlotte Community Health Clinic • Charlotte Volunteers in Medicine Clinic • Care Ring • CMC Biddle Point • CMC Elizabeth Family Practice • CMC Meyers Park • CMC North Park • Free Clinics of Our Town (Davidson) • Matthews Free Medical Clinic

	<ul style="list-style-type: none"> • Mecklenburg County Health Department • NC MedAssist • Lake Norman Community Health clinic • Physicians Reach Out (administered by Care Ring) • Shelter Health Services • Bethesda Health Center
<p>Community resources addressing:</p> <ul style="list-style-type: none"> - <i>Environmental health</i> - <i>Injury</i> - <i>Mental health</i> - <i>Substance abuse</i> - <i>Violence</i> 	<ul style="list-style-type: none"> • Children’s Alliance • Charlotte Mecklenburg Drug Free Coalition • Community Domestic Violence Review Team • Community Child Fatality Prevention and Protection Team • Charlotte Housing Authority • Homeless Services Network • HIV Community Task Force • Mecklenburg Safe Routes to School • MAPPR – Mecklenburg Area Project for Primary Care Research • Mecklenburg Food Policy Council • Mecklenburg Fruit & Vegetable Coalition • MedLink of Mecklenburg

V. Impact Evaluation of 2013-2015 Community Health Needs Assessment

Based on the previously reported health data from the 2013-2015 Community Health Needs Assessment, the Novant Health Southern Piedmont Region Board of Trustees did a collective review of community feedback and prioritization, and determined the top health priorities for Novant Health Presbyterian Medical Center as the following: **Diabetes, Obesity, Access to Care, Maternal & Infant Health.**

To address these priorities, Novant Health Presbyterian Medical Center committed to providing community education, screenings and support groups to address these needs, as well as youth-focused physical activity and nutrition programs. From 2013-2015, Novant Health Presbyterian Medical Center was successful in implementing selected outreach programs for each of the defined priority areas while meeting the goals established for each program. The major program goal that was set for each priority area was to increase the number of community members reached through screenings and health education. In addition, some programs were established with specific goals to increase the number of resources or classes offered to the community-at-large. All goals were met for each priority area. Specific objectives and measures achieved are described below:

- 1) Priority Area: Diabetes— Over 1,000 community members were reached through screenings that included glucose and A1C exams to measure one’s risk for diabetes. In addition, over 400 community members received health education specific to diabetes management and prevention.

Screenings and educational classes were made available in the community at community centers, senior centers, churches, and at local community events as requested.

- 2) Priority Area: Obesity – Over 1,000 community members received health education specific to nutrition, lifestyle education and weight management. Screenings and educational classes were offered throughout the community at various locations.
- 3) Priority Area: Access to Care – Over 3,600 community members were screened for other chronic disease risk factors including screenings done in NHPMC’s Community Cruiser and the mobile mammography unit. In addition, NHPMC was successful in increasing the number of congregational health promoters at local churches in the Mecklenburg County community in an effort to provide a connection to health resources in faith-based settings.
- 4) Priority Area: Maternal & Infant Health – Through childbirth preparation, early parenting and infant CPR educational classes, over 4,600 expectant and new parents received education in the area of maternal and infant health. In addition, NHPMC was successful in increasing the total number of ROSE (Reaching Our Sisters Everywhere) Breastfeeding classes made available to expectant mothers.

Appendix A: Advisory group agencies for 2013 Mecklenburg County CHA

Advisory Group for 2013 Mecklenburg County CHA	
Agency	
	Mecklenburg County Public Information
	Council for Children's Rights
	Center for Prevention Services
	MeckLINK
	Smart Start of Mecklenburg
	Elizabeth Family Medicine
	Care Ring
	Mecklenburg County Health Department
	Teen Health Connection
	Novant Health
	Centralina Area Agency on Aging
	Mecklenburg County Land Use and Environmental Services Agency (LUESA)
	Carolinas HealthCare System (CHS)
	Faith Community Health Ministry, CHS
	Carolinas HealthCare System (CHS)
	UNC Charlotte
	Carolinas Center for Injury Prevention, CHS
	Mecklenburg County Health Department
	MCHD Epidemiology staff