2013 Community Health Needs Assessment & Implementation Strategy

“The power of community to create health is far greater than any physician, clinic or hospital.”

Mark Hyman, M.D., Chairman
Institute for Functional Medicine
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Appendix I. CHNA Survey Form

Appendix II. Documentation of Approval of CHNA
by BRHC Board of Directors
Accessing the CHNA

For a current and complete version of Blue Ridge HealthCare’s 2013 Community Health Needs Assessment:

Visit our web site at www.blueridgehealth.org, go to “Important Links” at the bottom of the home page and click on “Community Health Assessment.” You may access, download, view and print a copy from this link. There is no fee, and you will not be required to give any personal information.

Or

Visit the Administration offices on the lower level of the Morganton campus of Blue Ridge HealthCare Hospitals where a copy of the Community Health Needs Assessment is available for public inspection.
Executive Summary

This Community Health Needs Assessment applies to Blue Ridge HealthCare Hospitals, Inc., which is licensed by the NC Division of Health Service Regulation to operate hospital campuses in Morganton and Valdese, NC, under a Single Provider Number.

Burke County ranked 76th in overall health among the Tar Heel State’s 100 counties, according to 2013 data from The Center for Healthy North Carolina. Numerous factors contribute to this unwelcome ranking. They encompass lifestyle, educational attainment, health status, living conditions, personal income and many more that, taken together, define the quality of life for many people who live in this county of mountains and rolling hills at the base of the Blue Ridge Mountains in Western NC.

For a rural setting, Burke County’s health resources are extensive. Its healthcare safety net, while sometimes frayed at the edges, includes – among others – numerous non-profit organizations, an active health department and nearly 300 physicians, advanced practitioners, dentists and other providers in practices across the county. At the center of the safety net is Blue Ridge HealthCare (BRHC) which provided more than $60 million in uncompensated care in 2012 through services rendered to various needy and underserved populations at its hospitals, long term care facilities and physician practices.

In 2013 BRHC brought together a coalition of people representing the broad interests of the community to collaborate with the healthcare system on its first Community Health Needs Assessment or CHNA. In addition to representatives from BRHC, this new CHNA Task Force included leaders from various health and human service agencies and organizations in Burke County. The mission of this new partnership is – through interaction with the community—

- To determine the major health issues people face in Burke County
- To select one or more of these issues as a primary focus for action
- To develop and carry out an Implementation Plan to impact people affected by the selected issue(s) over the next three years, and
- To track and widely report the results with the goal of making a meaningful difference.
As this CHNA and Implementation Strategy will show, diabetes was identified through primary and secondary research as the priority focus for BRHC and its community partners over the next three years. Cancer, heart disease, mental health and drug abuse were also identified as important areas of concern on surveys completed by more than 600 people who comprised a cross-section of the community. Diabetes shares a number of underlying, yet modifiable risk factors with these other top five issues.

Year one of the plan will set the stage for the three-year focus and will include the launch of a campaign on pre-diabetes. In years two and three, the campaign will expand to include a greater emphasis on Type 2 diabetes. The primary audience for these activities will be the medically needy and uninsured in Burke County.

Diabetes kills one person every six seconds worldwide, according to the International Diabetes Federation. Newly released data from the federation finds that “the number of diabetes cases has climbed 4.4 percent over the past two years, and the number of people affected by the disease is expected to climb 55 percent by 2035.

To bring the scale of this epidemic down to state and community levels, the Centers for Disease Control in 2013 reported that, if current trends continue, obesity alone could account for 1.2 million new cases of diabetes in the US over the next 20 years.

Burke County may be the harbinger of this new future. In April 2013, the CDC reported that the number of new diabetes cases in Burke County increased 60% between 2004 and 2010.

Through collaboration, sound medical science, best practices, multi-layered intervention and creative thinking, we are committed to reversing this deadly trend for the benefit of the community we serve.
A Brief Introduction to Blue Ridge HealthCare

Blue Ridge HealthCare (BRHC) is a private, non-profit community healthcare system located in Burke County in the Foothills region of Western North Carolina.

The system includes:

- Blue Ridge HealthCare Hospitals, Inc., with hospital campuses located in the City of Morganton and the Town of Valdese
- Two nursing homes (Grace Heights and College Pines Health & Rehabilitation Centers)
- A Continuing Care Retirement Community (Grace Ridge Retirement Community)
- Employed primary care and specialty physician practices, many including Advanced Practitioners (Blue Ridge Medical Group)
- A freestanding wellness center (Phifer Wellness Center)
- Freestanding urgent care and Express Care centers, two Pain Centers, and a freestanding radiology center

The Medical Staff is comprised of 250 physicians and an additional 100 Advanced Practitioners practicing in nearly 30 medical specialties.

BRHC operates a Graduate Medical Education (GME) program that is in its third year and will graduate its first cohort of medical residents in 2014. The program is affiliated with the Edward Via College of Osteopathic Medicine in Blacksburg, VA, and includes Family Practice, Internal Medical and Gastroenterology residency programs. BRHC also provides rotations for medical students pursuing their Doctor of Osteopathy degrees from medical schools across the country.

BRHC is affiliated through a management services agreement with Charlotte, NC-based Carolinas HealthCare System.
Blue Ridge HealthCare’s primary service area is Burke County, NC. Created by the NC General Assembly in 1777, the county has a rich history and culture reflecting a spirit of individual independence, self-reliance and pride of place. Burke County played an active role in the American Revolution. It was the gathering place for the Overmountain Men, frontiersmen turned soldiers, who defeated the British at the Battle of Kings Mountain and reversed the tide of the war in favor of the fledgling United States of America. Perhaps because of these historic roots, a strong vein of patriotism, religious freedom and traditional values still runs through Burke County. At one point, Burke County encompassed an area occupied today by 16 counties, before being reduced in
1836 to its current size. Even today, it is sometimes referred to as North Carolina’s “Western State Capital.”

Today the county consists of 13 townships, seven municipalities and numerous smaller communities and hamlets. The county shares borders with six surrounding counties.

Morganton is its largest city and is the county seat. Primarily rural in nature, Burke County covers just over 500 square miles of rolling hills, valleys and mountains, with elevations more than 4,300 feet above sea level.

Interstate 40 provides easy access to major points east and west of Burke County. Ninety-five percent of Burke County residents live within 10 miles of a four-lane highway. US and NC State highways also link the county and surrounding areas to larger cities, including Charlotte and Asheville. Even so, many populated areas in Burke County are quite remote and are serviced by unpaved secondary roads.

Burke County shares borders with six surrounding counties. Hospitals are also located in all six surrounding counties.
Population

Generally speaking, Burke County residents are less educated, earn lower incomes, are less mobile, and experience higher rates of disability than their counterparts across the state. Slightly more Burke County residents are homeowners than the state average, but the percentage of elderly living in a nursing home or similar facility is four times the state average. Compared to the average North Carolinian, fewer people in Burke County have personal transportation.

- Burke County’s total population is generally evenly split between males and females.
- Burke County has experienced a slight growth in overall population since 2000. From 2000 to 2010, the total population increased 0.2% from 89,148 to 90,912. Based on projected births, resident outmigration, aging trends and other indicators, the county’s population is expected to remain relatively flat for the foreseeable future.
- The average NC county has a higher percentage population of younger residents than Burke.
- The median age in Burke County for 2010 is 41.2, up 4 years from 36.9 in the 2000 Census.
- The number of children under 5 years of age has declined slightly from 6.2% (5509) in 2000 to 5.6% (5068) in 2010.
- Increases in the numbers and percentages of persons 45 and older since the 2000 Census point to a population shift in Burke County, particularly toward adults 65 and over, the fastest growing sector of the population.
- Racial distribution within Burke County has changed very slightly from 2000 to 2010 with the percentage of Caucasians being 86% in 2000 and 84% in 2010. Other races comprised approximately 14% of the population in 2000 and approximately 15% in 2010. Burke County’s minority populations, in order of prevalence, include African-Americans, Hispanics, Asian-Americans, Native Americans and Other/Mixed Race
Population Distribution by Age, Number of Persons (2010)

<table>
<thead>
<tr>
<th>County</th>
<th>Census 2010 Population</th>
<th>0-4 Years</th>
<th>5-19 Years</th>
<th>20-24 Years</th>
<th>25-34 Years</th>
<th>35-44 Years</th>
<th>45-54 Years</th>
<th>55-64 Years</th>
<th>65+ Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burke County</td>
<td>90,912</td>
<td>5,068</td>
<td>18,119</td>
<td>5,247</td>
<td>9,727</td>
<td>12,160</td>
<td>13,800</td>
<td>12,118</td>
<td>14,673</td>
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<tr>
<td>NC Total</td>
<td>9,535,483</td>
<td>632,040</td>
<td>1,926,640</td>
<td>661,573</td>
<td>1,327,151</td>
<td>1,368,646</td>
<td>1,138,761</td>
<td>1,234,079</td>
<td></td>
</tr>
<tr>
<td>NC County Average</td>
<td>95,355</td>
<td>6,320</td>
<td>19,266</td>
<td>6,616</td>
<td>12,466</td>
<td>13,272</td>
<td>13,686</td>
<td>11,388</td>
<td>12,341</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>County</th>
<th>Census 2010 Population</th>
<th>0-4 Years</th>
<th>5-19 Years</th>
<th>20-24 Years</th>
<th>25-34 Years</th>
<th>35-44 Years</th>
<th>45-54 Years</th>
<th>55-64 Years</th>
<th>65+ Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burke County</td>
<td>90,912</td>
<td>5.6</td>
<td>19.9</td>
<td>5.8</td>
<td>10.7</td>
<td>13.4</td>
<td>15.2</td>
<td>13.4</td>
<td>16.1</td>
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<tr>
<td>NC Total</td>
<td>9,535,483</td>
<td>6.6</td>
<td>20.2</td>
<td>6.9</td>
<td>13.1</td>
<td>13.9</td>
<td>14.3</td>
<td>11.9</td>
<td>12.9</td>
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</table>

Burke County Demographic Profile by Age and Sex (2010)

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Burke County</th>
<th>North Carolina</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>Male</td>
</tr>
<tr>
<td>All Ages</td>
<td>90,912</td>
<td>45,468</td>
</tr>
<tr>
<td>Under 5</td>
<td>5,068</td>
<td>2,665</td>
</tr>
<tr>
<td>5 to 9</td>
<td>5,316</td>
<td>2,720</td>
</tr>
<tr>
<td>10 to 14</td>
<td>5,841</td>
<td>3,030</td>
</tr>
<tr>
<td>15 to 19</td>
<td>6,962</td>
<td>4,079</td>
</tr>
<tr>
<td>20 to 24</td>
<td>5,247</td>
<td>2,897</td>
</tr>
<tr>
<td>25 to 29</td>
<td>4,804</td>
<td>2,500</td>
</tr>
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<td>30 to 34</td>
<td>4,923</td>
<td>2,450</td>
</tr>
<tr>
<td>35 to 39</td>
<td>5,706</td>
<td>2,882</td>
</tr>
<tr>
<td>40 to 44</td>
<td>6,454</td>
<td>3,327</td>
</tr>
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<td>45 to 49</td>
<td>7,010</td>
<td>3,545</td>
</tr>
<tr>
<td>50 to 54</td>
<td>6,790</td>
<td>3,242</td>
</tr>
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<td>55 to 59</td>
<td>6,151</td>
<td>3,001</td>
</tr>
<tr>
<td>60 to 64</td>
<td>5,967</td>
<td>2,879</td>
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<tr>
<td>65 to 69</td>
<td>4,720</td>
<td>2,196</td>
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<tr>
<td>70 to 74</td>
<td>3,552</td>
<td>1,637</td>
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<tr>
<td>75 to 79</td>
<td>2,765</td>
<td>1,135</td>
</tr>
<tr>
<td>80 to 84</td>
<td>1,960</td>
<td>765</td>
</tr>
<tr>
<td>85+</td>
<td>1,676</td>
<td>500</td>
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</tbody>
</table>
Population Changes by Age Cohort (2000-2010)

<table>
<thead>
<tr>
<th>Age Ranges</th>
<th>Under 5</th>
<th>5-9</th>
<th>10-14</th>
<th>15-19</th>
<th>20-24</th>
<th>25-34</th>
<th>35-44</th>
<th>45-54</th>
<th>55-59</th>
<th>60-64</th>
<th>65-74</th>
<th>75-84</th>
<th>85 +</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change 2000-2010</td>
<td>-441</td>
<td>-734</td>
<td>-398</td>
<td>746</td>
<td>-70</td>
<td>-2,803</td>
<td>-1,718</td>
<td>-1,457</td>
<td>1,215</td>
<td>1,823</td>
<td>1,579</td>
<td>799</td>
<td>309</td>
</tr>
<tr>
<td>% Change 2000-2010</td>
<td>-8.0</td>
<td>-12.1</td>
<td>-6.4</td>
<td>12.0</td>
<td>-1.3</td>
<td>-22.4</td>
<td>-12.4</td>
<td>11.8</td>
<td>24.6</td>
<td>44.0</td>
<td>23.6</td>
<td>20.4</td>
<td>22.6</td>
</tr>
</tbody>
</table>

**Educational Attainment**

Despite certain bright spots within the local education system, the county’s citizens lag behind their counterparts in North Carolina as a whole on educational attainment. According to the 2010 Census, the county had 13% fewer high school graduates and 9% fewer college graduates than the average NC County. The average SAT score among Burke County students was 990 in 2010, which is 11 points lower than the state average.

- In Burke County 40.5% of persons age 65 and older lack a high school diploma, compared to a comparable figure of 25.2% for the state as a whole. In addition, 21.1% of persons aged 45-64 in Burke County lack a high school diploma, compared to 12.6% for the state as a whole.
- Not unexpectedly, a smaller percentage Burke County residents age 65 and older than North Carolina residents in the same age category has a Bachelor’s degree or higher education (15.0% vs. 19.9%). In the age group 45-64 the difference is even greater: 18.8% in Burke County compared to 26.9% statewide.

**The Elderly**

Compared to counties across North Carolina, Burke County has a higher percentage population aged 65 years and older.

- Approximately 826 persons in Burke County can be classified as grandparents who are raising grandchildren under the age of 18. This number computes to a proportion of the total population at the time equal to approximately 0.9%, a figure 80% higher than the comparable percentage for North Carolina as a whole (0.5%).
• With regard to home ownership, slightly higher percentage of Burke County’s elderly are homeowners than in North Carolina as a whole: in Burke County approximately 78% of the persons between the ages of 45 and 64 and 82% of those aged 65 and older are homeowners compared to state figures of 76% and 80% respectively.

• In 2010 28.4% of Burke County residents age 65 or older lived alone; the comparable state rate was 27.5%.

• In 2010 3.6% of persons 65 or older were living in nursing homes and 12.2% of that age group was living in adult care homes. The comparable state figures were 4.2% and 3.7%, respectively. The lower local rates participation of long-term care may be related to the higher rate of home ownership among Burke County elderly or a lack of available long-term care services.

• The elderly population in Burke County has a slightly higher proportion of persons with disabilities than in the elderly population in North Carolina as a whole. According to 2010 US Census figures, 20.4% of persons age 65 or older in Burke County reported having one disability; 28.0% of the same population reported having two or more disabilities. These percentages compare to respective statewide figures of 16.3% and 22.1%. The US Census bureau of disability includes any long-lasting physical, mental or emotional condition that can make it difficult for persons to walk, climb stairs, dress, bathe, learn or remember.

• Larger proportions of Burke County residents in some of the older age groups are without a car as compared to similar data for North Carolina as a whole. In Burke County, 3.4% of householders between the ages of 35 and 64 and 18.3% of those between the ages of 65 or older are without a car; these figures compare to rates of 5.2% and 10.5% of the respective groups statewide.

### Growth of the Elderly Population

<table>
<thead>
<tr>
<th>County</th>
<th>2000 Census</th>
<th></th>
<th>2010 Census</th>
<th></th>
<th>2020 Projected</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>60-69</td>
<td>70-74</td>
<td>75-84</td>
<td>85+</td>
<td>60-69</td>
</tr>
<tr>
<td>Burke</td>
<td>7,799</td>
<td>3,038</td>
<td>3,926</td>
<td>1,367</td>
<td>10,687</td>
</tr>
<tr>
<td>NC Total</td>
<td>606,385</td>
<td>250,959</td>
<td>329,830</td>
<td>105,464</td>
<td>497,904</td>
</tr>
<tr>
<td>NC Cty. Avg.</td>
<td>6,064</td>
<td>2,510</td>
<td>3,298</td>
<td>1,055</td>
<td>4,979</td>
</tr>
</tbody>
</table>

**Children and Youth**

Young persons aged 5-19 represent a higher percentage and number of the population in Burke County than other age ranges, second only to adults 65 years and older.

- As of the 2010 Census, 22% of Burke County residents were under the age of 18
- Just over 5% of the county’s population is under the age of 5.
- Children age 0-4 represents the smallest segment of the population in Burke County.
- The largest number of children lives in Morganton, while the township with the highest percentage of children resides in Lower Creek.
- Jonas Ridge Township has both the smallest number and percentage of children.

**Non-English Speaking Populations**

Like North Carolina as a whole, Burke County has experienced a 10-fold increase in the number of foreign born residents since the 1970s. The actual numbers may higher than the state has estimated, since many in this population are missed by or do not participate in the Census. The foreign-born population in a community is one that potentially does not speak English, and so is of concern to providers of healthcare and social services.

Statewide and in Burke County, the greatest proportion of the increase in foreign-born persons is represented by immigrants of Hispanic origin, although there has also been an influx of foreign-born immigrants from Southeast Asia, as well.
• According to the 2010 Census data, 4,702 foreign-born residents were living in Burke County.
• The largest number of foreign-born individuals entered Burke County after 2000.
• In each ten year period since 1990, Burke County saw the arrival of less foreign-born persons than the average NC county.
• Even though there is a constant fluctuation of the foreign born population, actual numbers of residents remain relatively stable. Any fluctuation is due in part to the economic climate within the county.

### Growth of the Potentially Non-English Speaking Population

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Burke</td>
<td>485</td>
<td>970</td>
<td>1,272</td>
<td>1,975</td>
<td>4,702</td>
</tr>
<tr>
<td>NC Total</td>
<td>77,831</td>
<td>89,145</td>
<td>223,399</td>
<td>328,762</td>
<td>719,137</td>
</tr>
<tr>
<td>NC County Average</td>
<td>778</td>
<td>891</td>
<td>2,234</td>
<td>3,288</td>
<td>7,191</td>
</tr>
</tbody>
</table>

### Economic Climate

For more than a century, generation after generation of Burke Countians found a secure employment future in the area’s vast array of textile mills and furniture manufacturers. The economy was strong, unemployment low, wages good and the quality of life high. This stable environment began a slow and inexorable decline in the 1980s when these manufacturers began to gradually move their operations offshore where less expensive labor, lower taxes and fewer regulations made the business climate friendlier to entrepreneurs.

Burke County’s economy and many Burke County citizens are still recovering from the loss of this traditional manufacturing base, although some recent economic development successes hold the promise a brighter future. Even furniture and textiles appear to be making a slow comeback.

Still, unemployment in Burke County (and several surrounding counties) continues to exceed state and national averages, standing at 10.2% YTD in July 2013. In addition, economic recovery in Burke County tends to lag behind other counties, the state and even the nation.
In 1996 the NC General Assembly created a stimulus program that would award financial aid to the state’s most economically distressed counties in the form of a tax credit. Five “enterprise tiers” were established to assign levels of economic and community stress for all 100 NC counties, with Tier 1 being the most distressed and Tier 5 being the least distressed counties. The original criteria for assigning tier status were per capita income, unemployment rate, and population growth, although these have been modified somewhat over time. Burke County was designated Tier 1 in 2011, a status it has held since 2007.

**Personal Income**

Many Burke County residents live within an income that is substantially below the state average.

- As of 2010, the per capita personal income in Burke County was almost $2,700 lower than in the NC Average.
- The median household income in Burke County of around $38,100 is lower than the NC county average of around $43,326.
- The populations in several older age categories in Burke County had lower median incomes than their counterparts statewide, according to data reported for 2010. For the group ages 45-64, the median income in the county was $47,317, 7% lower than the median income for the age group statewide, $50,983. For the population group 65 and older, the Burke County median income figure was $26,800 compared to a statewide figure of $31,694.

### Personal Income (Years as noted)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Burke</td>
<td>1</td>
<td>$20,679</td>
<td>-$2,753</td>
<td>$38,131</td>
<td>-$5,195</td>
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<tr>
<td>NC County Avg.</td>
<td>N/A</td>
<td>$23,432</td>
<td>N/A</td>
<td>$43,326</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Source: 2010 American Community Survey and NC Department of Commerce. [http://www.census.gov](http://www.census.gov) and [http://nccommerce.com](http://nccommerce.com)
Unemployment

Burke County’s unemployment rate increased quickly in response to the economic downturn that began in late 2008. It peaked at more than 16% in 2010 at the height of the recession.

- In 2010, an average 13.4% of the Burke County civilian labor force was unemployed. In July 2013, unemployment stood at 10.2%.
- The unemployment rate in Burke County has exceeded the comparable state rate every year since 2001.
- Between 2005 and 2010, Burke County experienced four years of large negative growth (or job losses).
- Net employment growth in Burke County between 2007 and 2010 was actually negative 3.9, reflecting numerous job losses; at the state level employment growth over the same period was negative 1.3.
Employment

- The manufacturing and healthcare/social assistance sectors together employ the largest proportion of Burke County’s work force. Manufacturing employs roughly double (15%) the comparable fraction of the statewide workforce.
- Health care/social assistance is the second largest industry, employing about one-fifth of the county’s workforce.

Burke County’s 10 Largest Employers

<table>
<thead>
<tr>
<th>Company</th>
<th>Product/Service</th>
<th>Estimated Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burke County Schools</td>
<td>Public Education</td>
<td>2,200</td>
</tr>
<tr>
<td>Blue Ridge Health Care</td>
<td>Health Care</td>
<td>1,400</td>
</tr>
<tr>
<td>Broughton Hospital</td>
<td>Mental Health Care</td>
<td>1,200</td>
</tr>
<tr>
<td>J. Iverson Riddle Center</td>
<td>Mental Health Care/Research</td>
<td>1,000</td>
</tr>
<tr>
<td>*Western Correctional Center</td>
<td>Youth Correction</td>
<td>800</td>
</tr>
<tr>
<td>Case Farms</td>
<td>Food</td>
<td>725</td>
</tr>
<tr>
<td>Valdese Weavers</td>
<td>Woven Fabric</td>
<td>575</td>
</tr>
<tr>
<td>Western Piedmont</td>
<td>College System</td>
<td>560</td>
</tr>
<tr>
<td>Leviton Southern Devices</td>
<td>Electrical</td>
<td>520</td>
</tr>
<tr>
<td>Burke County</td>
<td>County Government</td>
<td>500</td>
</tr>
</tbody>
</table>

Source: Burke Development, Inc., 2013
*Funding eliminated in 2013 by NC General Assembly

Socioeconomic Climate

Poverty

Between 2003 and 2010, the poverty rate in Burke County exceeded the state poverty rate in seven of the eight years. The poverty rate is defined as the percent of the population (both individuals and families) whose money income (which includes job earnings, unemployment compensation, Social Security income, public assistance, pension/retirement, royalties, child support, etc.) is below the threshold established by the Census Bureau.

Annual Poverty Rate (2003-2010)

<table>
<thead>
<tr>
<th>County</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burke</td>
<td>13.6</td>
<td>14.0</td>
<td>14.6</td>
<td>16.9</td>
<td>16.0</td>
<td>15.5</td>
<td>17.4</td>
<td>18.7</td>
</tr>
<tr>
<td>NC</td>
<td>13.4</td>
<td>13.8</td>
<td>14.9</td>
<td>14.6</td>
<td>14.3</td>
<td>14.6</td>
<td>16.2</td>
<td>17.4</td>
</tr>
</tbody>
</table>

• Between 2000 and 2010 the total percent of Burke County residents in poverty increased by 81.6%.
• During this same interval, the percentage of white county residents in poverty increased by 80%.
• The percentage of African American county residents in poverty increased by 125% during this period.
• Statewide over this time frame the percent of both whites and African Americans in poverty increased 55% among whites and 21% among blacks.
• The percentage of white persons in poverty in Burke County exceeded the state rate in both 2000 and 2010. Poverty rates in Burke County and North Carolina as a whole have been highest among the black population. According to the 2010 US Census, the 2010 poverty rate for blacks in the county was just under 3% higher than the comparable state percentage. That said, low numbers of populations will cause rates to look disproportionately high.

When compared to the state in 2010, Burke County had a higher percentage of the population below the poverty level in all age groups except under 5 and 65 to 74. The largest difference occurred among the populations aged 18-64: the Burke County rate was 3 percentage points higher than the state rate.

• In Burke County in 2010, 49% of all persons in poverty were under the age of 18; statewide 34.4% of all persons in poverty were in that age group.

### Persons in Poverty by Age (2010)

<table>
<thead>
<tr>
<th>County</th>
<th>Total Persons in Poverty</th>
<th>Under 5 Years</th>
<th>Ages 5-17</th>
<th>Ages 18-64</th>
<th>Ages 65-74</th>
<th>Age 75 and Older</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>%</td>
<td>Number</td>
<td>%</td>
<td>Number</td>
<td>%</td>
</tr>
<tr>
<td>Burke</td>
<td>16,588</td>
<td>28.5</td>
<td>3,464</td>
<td>23.6</td>
<td>10,493</td>
<td>19.2</td>
</tr>
<tr>
<td>NC</td>
<td>1,627,602</td>
<td>29.1</td>
<td>378,293</td>
<td>22.9</td>
<td>948,936</td>
<td>16.2</td>
</tr>
</tbody>
</table>


The number and percent of homes with single parents increased between 2000 and 2010 in Burke County and the state, according to the 2010 US Census. When
compared to the state, Burke County had a significantly lower percentage of single parent homes in 2010.

The number of Burke County households headed by single fathers increased by 13% during this period, while the percentage increase statewide was 40%. In both 2000 and 2010 the percentage of households headed by a single male was higher in Burke County than the average NC County. The percentage of households in Burke County headed by a single female increased by 8% between 2000 and 2010, the comparable increase at the state level was 2%.

**Education**

The county’s largest educational provider is the Burke County Public Schools (BCPS) with an annual enrollment of just over 13,000 students in K-12. The school system includes 26 schools (15 primary/elementary-level schools, five middle schools, five high schools, one alternative school, one special needs school, and one pre-school program.) The New Dimensions School is the only charter school in the county, and there are three private schools. In addition, many parents home school their children.

BCPS teaches to a diverse population, both culturally and educationally. The system serves more than 2,000 special needs students and more than 1,000 students speaking 19 languages and who have limited proficiency in English. Twelve per cent of the students are academically gifted. The racial composition of the student body is

- 74% white
- 7% Asian
- 6% African American
- 9% Hispanic/Latino
- 4% Multi-racial and
- 0.2% American Indian.

The average attendance rate was 97% during the 2010-11 school year.

Among the challenges facing BCPS are declining enrollment driven by outmigration of students to neighboring counties, an aging population, declining birth rates and federal/state/local funding. Such challenges are borne out statistically. For example, 2010-11 per-pupil expenditures (i.e. per-pupil
expenditures from state, federal and local sources) in the Burke County School System ranked 98 out of all 117 school systems in North Carolina.

Burke County is also home to Western Piedmont Community College, a highly regarded educational institution that offers a wide variety of courses to about 3,200 full and part time students. Two-year associate degree programs cover many careers. In addition to on-campus studies, the college offers continuing education, certification and distance learning from its off-campus Foothills Higher Education Center location.

**Healthcare Resources**

Access to and utilization of healthcare resources are affected by a range of variables, including the availability of medical professionals in a region, insurance coverage or lack of it, location of services, cultural expectations and many other factors. Burke County’s healthcare resources are extensive, and there is a significant commitment among these resources to the medically underserved, regardless of their ability to pay for care. Healthcare providers are joined in this commitment to serving all people by a strong network of community-based non-profit health and human service organizations. The result is an effective healthcare safety net and an atmosphere of ever-increasing collaboration among providers and the community.

**Physicians, Advanced Practitioners and Others**

Burke County’s medical community reflects a balanced mix of primary care physicians, physician specialists, advanced practitioners (i.e., Physician Assistants, Family Nurse Practitioners, etc.) and others (e.g., chiropractors). Physicians include both allopathic and an increasing number of osteopathic-trained providers.

<table>
<thead>
<tr>
<th>Healthcare Providers in Burke County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Physicians: 250</td>
</tr>
<tr>
<td>Physicians per 10,000 population: 21.2</td>
</tr>
<tr>
<td>RNs per 10,000 population: 106.8</td>
</tr>
<tr>
<td>Dentists per 10,000 population: 3.3</td>
</tr>
<tr>
<td>Pharmacists per 10,000 population: 7.9</td>
</tr>
</tbody>
</table>

Source: Cecil G. Sheps Center for Health Services Research
Since 2002, Blue Ridge HealthCare has engaged in an extensive physician recruiting program that has brought approximately 100 new physicians to Burke County. The goal of the program has been two-fold: to increase the supply of primary care physicians in the community and to fill in the gap of missing physician specialties previously not available in Burke County.
Blue Ridge HealthCare – Blue Ridge HealthCare is Burke County’s non-profit, community healthcare system, its single largest employer and the centerpiece of the healthcare safety net for the community. The heart of the system is its two general, acute care hospital facilities, located nine miles apart. Grace Hospital in Morganton was founded in 1906, and Valdese Hospital opened its doors in 1939. Historically, the two hospitals were competitors, but in 2001 they consolidated to create a new, community-wide health system under a new name, Blue Ridge HealthCare. The consolidation also included a number of non-hospital affiliates operated by Grace or Valdese:

- Two nursing home/rehabilitation centers (Grace Heights and College Pine Health and Rehabilitation Centers)
- A home health company (Blue Ridge Home HealthCare)
- A freestanding wellness center (Phifer Wellness Center)
- A continuing care retirement center (Grace Ridge Retirement Community) and
- An employed physician group (Blue Ridge Medical Group)

### 2012 System Profile – Blue Ridge HealthCare

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Licensed Beds</td>
<td>315</td>
</tr>
<tr>
<td>Adjusted Discharges</td>
<td>24,218</td>
</tr>
<tr>
<td>Discharges</td>
<td>8,382</td>
</tr>
<tr>
<td>Patient Days</td>
<td>33,641</td>
</tr>
<tr>
<td>Average Length of Stay in Days</td>
<td>3.9</td>
</tr>
<tr>
<td>Outpatient Visits</td>
<td>88,305</td>
</tr>
<tr>
<td>Emergency Department Visits</td>
<td>62,201</td>
</tr>
<tr>
<td>Inpatient Surgeries</td>
<td>1,874</td>
</tr>
<tr>
<td>Outpatient Surgeries</td>
<td>6,090</td>
</tr>
<tr>
<td>Lab Procedures</td>
<td>512,223</td>
</tr>
<tr>
<td>Radiology Procedures</td>
<td>86,630</td>
</tr>
<tr>
<td>Births</td>
<td>946</td>
</tr>
<tr>
<td>Employees</td>
<td>1,786</td>
</tr>
<tr>
<td>Full-time Employees</td>
<td>1,377</td>
</tr>
<tr>
<td>Active Medical Staff</td>
<td>253</td>
</tr>
</tbody>
</table>
The new system united under a new mission: “To enhance life by excelling in care;” a new vision: “To be the best community healthcare system in America;” and a common set of values: “Compassion, Respect, Integrity, Excellence and Service.” The two governing boards over Grace and Valdese, respectively, were replaced by a single new Board of Director, comprised of citizen volunteers.

In December 2012, ten years after the consolidation, BRHC moved to the next level of integration when the State of North Carolina approved a single provider number for Grace and Valdese Hospitals. Today, they operate as a “single hospital with two campuses” under the name, Blue Ridge HealthCare Hospitals, Inc. The overall Blue Ridge HealthCare system, including the hospitals, operates under a management services agreement with Charlotte-based Carolinas HealthCare System.

Major clinical service lines are spread across the two campuses and include cardiology, oncology, women’s services, orthopedics and gastroenterology. Physicians representing 25 other specialties and primary care provide care in other service lines and departments. Both facilities completed a major Campus Redevelopment Plan in 2008 that concentrated on efficient, convenient outpatient care delivery and key clinical service lines.

24/7 Emergency Departments, outpatient surgery, radiology centers and laboratory services are located on both the Morganton and Valdese campuses. Off site, Blue Ridge HealthCare operates freestanding pain management, radiology and urgent care centers. In 2014 BRHC will open two additional urgent care centers. Both the Morganton and Valdese operations are accredited by The Joint Commission, with individual departments and services all accredited by their relevant accrediting bodies. Through its affiliation with Carolinas HealthCare System, Blue Ridge HealthCare Hospitals provides patients with access to other specialty and sub-specialty tertiary and quaternary care not available locally.

In 2009, Blue Ridge HealthCare Hospitals initiated a Graduate Medical Education program in partnership with the Edward Via College of Osteopathic Medicine at Virginia Tech. The program – which includes Family Practice and Internal Medicine residencies, a Gastroenterology
Fellowship and medical student rotations -- will graduate its first class of residents in 2014.

**Mountain Valley Health Center and Blue Ridge Family Practice** – Physician residents in Blue Ridge HealthCare’s Graduate Medical Education program staff these two practices under the guidance of supervising physicians, all experienced doctors of osteopathic medicine. **Blue Ridge Family Practice** in Valdese, NC, operates not only as a private practice but also has as its mission caring for the uninsured and medically underserved in Burke County and training Family Practice residents. BRHC recently expanded an existing family practice, doubling the number of exam rooms to 18 in anticipation of a major influx of new patients, mainly uninsured and underinsured people, into the practice in the years ahead. **Mountain Valley Health Center** in Morganton operates in a like manner but trains Internal Medicine residents who serve the medically needy and other patients, as part of their medical education experience. As at Blue Ridge Family Practice, the Internal Medicine residents are supervised by senior physicians on site.

**Broughton State Hospital** – Located in Morganton, Broughton Hospital is the largest psychiatric hospital operated by the State of North Carolina within the Department of Health and Human Services under the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services. A new hospital to replace the original structure is currently underway. Broughton Hospital serves the 37 westernmost counties in the state, which have a population of over three million, or about 36.4% of the State’s total population. Services are rendered through direct admission to the hospital or through local management entities (LMEs) in the hospital’s catchment area that provide outpatient services. Patients are admitted to the hospital by judicial commitment or on a voluntary basis.

The hospital is currently organized by function and program service, and at the level of wards is comprised of four residential divisions with patients grouped by major treatment modalities, age, and patient need. The four divisions are Division A (Adult Admissions), Division M (Medical), Division P (Psychiatric Rehabilitation), and Division S (Specialty Services). Broughton Hospital is certified for the receipt of Medicaid and Medicare funds.
In addition to certified psychiatric beds, the hospital maintains an acute medical hospital. The hospital is accredited by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), certified by the Centers for Medicaid and Medicare Services (CMS), and licensed through deemed status from the North Carolina Department of Health and Human Services, Division of Facility Services.

The Burke County Health Department – Serving all of BRHC’s primary service area, the Burke County Health Department, offers the following basic healthcare services:

- Adult Health - provides health exams for men and women over 21 years old (based on sliding scale fee) and Medicaid.
- Child Health - provides well child check-ups and school physicals for young people up to age 21 (sliding scale fee, Medicaid)
- Immunizations - provides shots for children and adults (most are free for children; TB skin test; Flu & Pneumonia vaccinations during flu season)
- Sexually Transmitted Infections – provides diagnosis and treatment to anyone who may have or who suspects s/he has a sexually transmitted infection (no cost)
- HIV Antibody Testing - provides pre and post-test counseling and testing for anyone who suspects they have been put at risk for HIV (no cost)
- Maternity - provides prenatal care for pregnant women (including PCM and WIC services for those who are eligible) (sliding scale fee, Medicaid, or insurance)
- Family Planning - provides education, exam and birth control methods for women who desire to delay or space pregnancies (sliding scale fee, Medicaid, or insurance)
- Special services provided to the community by request such as immunizations for businesses, nursing homes, etc.
In addition, the Health Department provides other community-based health promotion and disease prevention services, including:

- **Health Education** - provides education and wellness programs (for church, work, and other groups who desire custom programs; small charge depending on type of program)
- **WIC** - provides nutrition vouchers and services for women, infants, and children (to age 5) who qualify (no cost, but must qualify by income)
- **SIDS** - provides counseling by specially trained nurses who help families deal with the loss of a child from Sudden Infant Death Syndrome (no cost)
- **Care Coordination for Children** – serves children from birth to five years of age who have special needs or who are at risk for developmental delays
- **Health Check** - makes well-child and sick visit appointments for participating Medicaid infants and children
- **OB Care Managers** - serves Medicaid eligible pregnant women who need help in securing resources to improve likelihood of a healthy baby
- **Child Care Health Consultant (CCHC)** – Smart Start funded position that provides consultation, training and educational resources for staff employed in licensed Child Care facilities

Since its 2007 Community Health Assessment, the Burke County Health Department closed both the Adult and Children’s Dental clinics due to budget and reimbursement reductions. In response, community dentists increased the number of Medicaid and underinsured patient they treated and reduced the number of clients for the Health Department clinic.

**Burke Health Solutions** -- Burke Health Solutions is a broad based community planning group that came together in 2009 to begin looking at the medical, dental and mental health delivery systems for the low-income medically uninsured in Burke County. It is funded primarily by a grant from the Duke Endowment.
**Burke Health Solutions** began with 21 members and since has expanded to include school administrators, Parks and Recreation, and others. The core group of supporting organizations includes Blue Ridge Health Care, the Good Samaritan Free Clinic, County Health and Social Services Departments and Western Piedmont Community College. The collaborative has been incorporating physician input and buy-in through their involvement in focus groups. Burke County United Way has also been critical to the coordination of the planning effort. Burke Health Solutions’ originating partners include:

- AccessCare
- AIDS Alliance (ALFA)
- Burke Primary Care (Community-based Family Practice)
- Blue Ridge HealthCare/Blue Ridge HealthCare Medical Staff
- Burke Council on Aging
- Burke Council on Alcoholism and Chemical Dependency
- Burke County Commissioners
- Burke County Department of Social Services
- Burke County Health Department
- Burke County Public Schools Nurse Program
- Burke County United Way
- Burke County Dental Society
- Good Samaritan Clinic
- Compassionate Hearts Medical Ministry
- Healthy Burke/Healthy Carolinians
- Mental Health Partners
- Mountain Emergency Physicians
- Western Piedmont Community College
- Burke County Chamber of Commerce
- Burke Community Foundation

**The Good Samaritan Clinic** -- The Good Samaritan Clinic is a project of Burke United Christian Ministries, a community-based non-profit organization. The facility, located in downtown Morganton, is Burke County’s community health center for low-income, non-veteran Burke County adult residents who are without insurance (including Medicaid and Medicare) and who meet financial criteria. The clinic offers general health care, basic laboratory services, non-narcotic prescriptions, mental health services, periodic orthopedic and gynecological care, and limited dental
services. The clinic has a limited number of paid employees but is staffed primarily by volunteer physicians, interpreters, pharmacists, and others from the community. The Good Samaritan Clinic continues to grow and serve the uninsured/underinsured, non-Medicaid eligible Burke County resident. The Good Samaritan Clinic sees more than 10,000 clients annually and dispenses more than 25,000 prescriptions every year. Roughly half of the Clinic’s clients are unemployed or seeking employment or disability benefits, a proportion that has continued to increase. The Good Samaritan Clinic serves more residents aged 30-64 than all other age categories: 18-29 years old (13%); 30-45 years old (58%), 46-64 years old (27%) and 65 (+) years old (2%).

Urgent Care Centers – Burke County will soon be served by three urgent care centers. Blue Ridge HealthCare operates one center on the eastern edge of the county and will open a second center in Morganton in early 2014 at a new Wal Mart shopping complex. Psalms Urgent Care is privately owned and opened in June 2010 in Morganton. It operates on a fee for service basis with discounted rates.

Nursing Homes/Long Term Care Facilities – Six facilities in Burke County provide long term nursing care and/or short term convalescent or rehabilitative care, as medical conditions warrant. Compared to the NC county average, Burke County has slightly more licensed nursing homes beds (556), and the total number has not changed over the past decade. The same is generally true for North Carolina as a whole. Despite the growing elderly population in North Carolina, the number of nursing home beds in the state increased only slightly between 2004 and 2010. Burke County’s nursing homes include:

- Grace Heights Health & Rehabilitation Center in Morganton, a service of Blue Ridge HealthCare
- College Pines Health & Rehabilitation Center in Valdese, a service of Blue Ridge HealthCare
- Britthaven of Morganton
- Autumn Care in Drexel
- Carolina Rehabilitation Center of Burke in Connelly Springs.
In addition, Grace Ridge Retirement Community, a Continuing Care Retirement Community located in Morganton and part of the Blue Ridge HealthCare system, includes not only independent living in apartments and cottages but also 72 nursing beds comprised of a mix of memory care, skilled nursing and assisted living beds.

**Target Populations: The Medically Underserved**

BRHC considers persons who may experience health disparities or who are at risk of not receiving adequate medical care, due to being uninsured, underinsured or other barriers, as a mission-critical target population. This population includes all the major demographic groups who may, at any time in their lives, be medically underserved or financially disadvantaged. These populations include, but are not limited to, infants and children, young and middle aged adults, the elderly, minorities, non-English speaking people and mentally and/or physically challenged individuals.

While Blue Ridge HealthCare serves all patients, regardless of their ability to pay for services, it has a special obligation, commitment, mission and heritage of serving the medically disadvantaged of Burke County and surrounding areas. The medically needy comprise a significant and growing population due to multiple factors, including, but not limited to:

- The lack of affordable health insurance
- Continuing job losses and the concomitant loss of employer health benefits
- The “working poor” who are employed but do not receive health benefits
- Higher co-pays and deductibles that many insured people with limited financial means cannot or do not pay
- Significant numbers of Medicaid-eligible people who are not enrolled in the program (Compounded by the North Carolina General Assembly and Governor’s decision not to expand the state’s Medicaid program in 2013, despite a growing need)
- The aging of the residents in Burke County, with its implications for the healthcare system for significant numbers of Medicare and Medicaid beneficiaries
• The absence of a personal physician or medical home, often resulting in more costly “crisis” episodes of care, lack of early detection/prevention/treatment of disease, inattention to chronic disease conditions, inadequate access to health information and other issues.

As a result, patients who are uninsured, underinsured, self-insured or qualify for “charity” care, represent about three out of every four patients served by BRHC in a typical year. This is borne out in BRHC’s most recent Community Benefit report for calendar year 2012 during which the healthcare system provided more than $62 million in uncompensated care for these target populations. An additional $2 million in Community Benefit went to a variety of community health improvement services, educational services for health professionals, monetary and in-kind support of community non-profit organizations and other community building activities. Total Community Benefit amounted to just under $64.3 million.

**Blue Ridge HealthCare’s 2012 Community Benefit**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charity Care Cost</td>
<td>$ 6,143,290</td>
</tr>
<tr>
<td>Uninsured Discount</td>
<td>4,126,180</td>
</tr>
<tr>
<td>Bad Debt Costs</td>
<td>10,895,070</td>
</tr>
<tr>
<td>Medicare Losses</td>
<td>29,688,884</td>
</tr>
<tr>
<td>Medicaid Losses</td>
<td>12,053,398</td>
</tr>
<tr>
<td>Community Health Improvement Services &amp; Operations</td>
<td>266,872</td>
</tr>
<tr>
<td>Health Professionals Education</td>
<td>685,797</td>
</tr>
<tr>
<td>Cash &amp; In-Kind Donations</td>
<td>125,080</td>
</tr>
<tr>
<td>Community Building Activities</td>
<td>308,977</td>
</tr>
</tbody>
</table>

**Total Community Benefit and Bad Debt** $64,293,548

An additional $11,544,412 in capital expenditures (technology, facilities, services, etc.) represented 5.2% of net operating revenues were re-invested into the community to enhance care.
Target Populations: Persons with Acute and Chronic Diseases

Target populations served by Blue Ridge HealthCare are also disease-specific. Clinically, Blue Ridge HealthCare has developed its highest priority service lines in response to high incidence conditions and chronic disease facing the residents of Burke County: These principal service lines, often referred to as BRHC’s “Hallmark Services,” include dedicated physicians, staff, technologies and facilities to support prevention, diagnosis and treatment of:

- Heart and Vascular Disease (including medical and interventional cardiology)
- Cancer (including medical and interventional cardiology)
- Digestive Diseases
- Bone and Joint Disease
- Women’s Health

Beyond these five “Hallmark Services,” specialties represented on the Medical Staff at BRHC Hospitals, Inc., include:

- Allergy Medicine
- Anesthesiology
- Dermatology
- Emergent/Urgent Care
- Family Medicine
- Internal Medicine
- Hospitalist Medicine
- Neonatalogy
- Nephrology
- Neurology
- Ophthalmology
- Oral Maxillofacial Surgery
- Pain Management
- Pathology
- Pediatrics
- Psychiatry
Moreover, BRHC conducts a range of community programs serving the target populations of individuals and their families who face these health issues or at-risk for them. These programs include, for example:

- Two clinics that serve Medicaid patients and other disadvantaged patients that are supervised by physicians and staffed by medical residents in the Family Practice and Internal Medicine Graduate Medical Education programs
- Free health screenings in locations across the service area (5,000-7,000 annually)
- Support groups linked to health issues prevalent in the community
- Free mammograms for medically underserved women
- The annual Lady Fair event providing health education, free screenings and other free services for women in Burke and surrounding counties (4,000-6,000 attendees annually)
- The annual Men’s Health Fair providing free screenings, health information and other services of interest to men across the service area
- Multiple medical seminars throughout the year with physician presenters from the BRHC Medical Staff and Carolinas HealthCare System
- Free fitness and wellness events at Phifer Wellness Center
Assessing Community Health Needs

Blue Ridge HealthCare Hospitals organized its first Community Health Needs Assessment Task Force in 2013. Its primary mission is to create a community-based collaborative that will partner with Blue Ridge HealthCare on the new Community Health Needs Assessment requirement for non-profit community hospitals under healthcare reform. To achieve the mission, the Task Force is charged with:

- Assessing the community’s health needs with input from persons and organizations representing the broad interests of the community
- Identifying and prioritizing these needs, based on the results of the assessment
- Selecting one or more of the identified needs for action
- Developing, implementing and managing strategies and tactics that will
  - Positively and measurably impact the selected community need(s) over the next three years
  - Maintain or improve health status in the community, with particular focus on medically disadvantaged or underserved residents in Burke County
  - Tracking results and reporting them to the community and other stakeholders on a regular basis
  - Providing appropriate CHNA information, notably progress on the Implementation Strategy, to BRHC to be reported annually to the federal government

Members represent a diverse and growing group of community-based organizations and stakeholders, united under a common commitment to addressing the priority health needs of Burke County residents, with a particular focus on medically needy, underserved and at-risk people.
The Community Health Needs Assessment Task Force

Chris Allison
Blue Ridge HealthCare
Regional Director of Marketing

Kathy C. Bailey, RN
Blue Ridge HealthCare
President & CEO

Linda Bonorden, RN
Blue Ridge HealthCare
Diabetes Education Nurse

Susan E. Brown, RN
Blue Ridge HealthCare
Chief Nursing Executive, VP Nursing

Elisabeth Campbell
Blue Ridge HealthCare
Administrative Assistant/CHNA Scribe

**Wendy Cato
Burke Co. United Way/Burke Health Solutions
Executive Director

Jason A. Clapsaddle
Blue Ridge HealthCare
VP, Blue Ridge Medical Group

Traci M. Clark
Blue Ridge HealthCare
General Accounting Manager

Jeryl R. Davis, APR
Blue Ridge HealthCare
VP, Corp. Communications & Gov’t Relations

Ginger Ealy, RD
Registered Dietitian
Community-based Registered Dietitian

Janice W. Hollar
BRHC Foundation
Executive Director, BRHC Foundation

Matthew S. Huff
Blue Ridge HealthCare
Director of Operations, BR Medical Group

**Lou Hill
Good Samaritan Clinic
Director

Brenda Kayga, RN
Blue Ridge HealthCare
Community Outreach Coordinator

Gandhari Loomis, DO
Burke Co. Health Dept.
Table Rock Family Medicine

*Rebecca McLeod
Community Outreach Coordinator

Christina McNally
Carolinas HealthCare System
Manager, Tertiary/Quaternary Physician Liaison

**Lisa Moore
Burke Co. Health Dept.
Health Ed. Supv./Health Promotion Coord.

Joseph Mazzola, DO
Blue Ridge HealthCare
Chief Medical Officer, SVP Medical Staff Affairs

Jon Mercer
Blue Ridge HealthCare
VP, Support Operations

Edward Plyler, MD
Blue Ridge HealthCare
Chief Medical Officer Continuing Care Services

Richard Owensby
Community Pharmacist
Retail Pharmacist

Sharon Owensby
Community Pharmacist
Retail Pharmacist

Spring Williams-Byrd
Burke Co. Cooperative Extension Service
Director

*Senior leader over Burke County Health Department. MPH from University of NC. 25 years experience in public health, prior to being named to this role in 2012.

**Represents an external (non-BRHC) non-profit community organization whose activities support directly or indirectly services to the medically underserved, low income, minority populations, including people with chronic diseases.
Identifying Burke County’s Health Needs: The Process and the Priorities

Blue Ridge HealthCare Hospitals’ has based its Community Health Needs Assessment and its selection of priority health issues on a combination of primary and secondary sources, including the following:

CHNA Surveys in Burke County

Blue Ridge HealthCare conducted on-line and paper surveys in Burke County in 2013 to gauge opinions on health and healthcare from a cross-section of stakeholders, specifically:

- Patients/clients of the Burke County Health Department
- Patients/families in the two Emergency Departments at Blue Ridge HealthCare Hospitals in Valdese and Morganton
- Families/Visitors in Outpatient Surgery Centers at Blue Ridge HealthCare Hospitals in eastern and western Burke County
- Employees of Burke County
- Community Health Fair Participants at Chesterfield Fire Department
- Community volunteers and leaders serving on boards of hospitals, long term care facilities and foundation at Blue Ridge HealthCare
- Physicians in Burke County
- Employees of Blue Ridge HealthCare

A total of 644 surveys were returned for a confidence level of 80%.

The Burke County Health Department’s 2012 CHA

Every four years, the Burke County Health Department – a partner with BRHC -- conducts a Community Health Assessment (CHA), as required by the Office of Healthy Carolinians and Health Education of the NC Division of Public Health. The Burke County Health Department released the findings of its CHA to the public in May 2012. Given its recency, the CHA has served as a relevant source of information for BRHC in preparing its first CHNA. Like BRHC, the Health Department conducted on-line and paper surveys, to produce demographically appropriate data from Burke County residents. These surveys and techniques identified public perceptions of the county’s quality of life, overall state of healthcare (access, quality, insurance coverage, resources and more), and individual health status and concerns. Just under 2,000 surveys (1,933) were completed.
**BRHC Survey Respondent Demographics**

The persons who completed BRHC’s on-line and paper surveys represented a cross-section of the community, based on the demographic information they provided as part of the surveys.

**Age**
- The ages of respondents constituted a near-perfect bell curve across the 18-69 range of ages reported.

![Ages of Survey Respondents](chart)

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 18</td>
<td>0%</td>
</tr>
<tr>
<td>18-24</td>
<td>7%</td>
</tr>
<tr>
<td>25-29</td>
<td>8%</td>
</tr>
<tr>
<td>30-34</td>
<td>9%</td>
</tr>
<tr>
<td>35-39</td>
<td>9%</td>
</tr>
<tr>
<td>40-44</td>
<td>10%</td>
</tr>
<tr>
<td>45-49</td>
<td>15%</td>
</tr>
<tr>
<td>50-54</td>
<td>13%</td>
</tr>
<tr>
<td>55-59</td>
<td>13%</td>
</tr>
<tr>
<td>60-64</td>
<td>10%</td>
</tr>
<tr>
<td>65-69</td>
<td>5%</td>
</tr>
<tr>
<td>70-74</td>
<td>0%</td>
</tr>
<tr>
<td>75+</td>
<td>0%</td>
</tr>
</tbody>
</table>
Gender

- Female respondents outnumbered males 4:1. Since research consistently shows that women in a household are the primary decision-makers in matters of the family’s health, the prevalence of female respondents would suggest a high level of credibility for overall survey results and any conclusions drawn based on the findings.
Race and Ethnicity

- The race/ethnicity of respondents generally mirrored the community’s various populations.

### Race/Ethnicity of Respondents

- **90.7%** White – Non-Hispanic
- **5.1%** Black – Non-Hispanic
- **1.3%** Hispanic/Latino
- **2.1%** Asian/Pacific Islander
- **0.0%** Native American
- **0.8%** Other (please specify)
- **90.7%** White – Non-Hispanic
Employment Status

- About four out of five respondents (84.9%) were employed either full-time or part-time, but the percentage of respondents who were unemployed at the time of the survey (5.5%) was somewhat lower than the county unemployment rate as a whole (approximately 10%).

### Employment Status of Respondents

<table>
<thead>
<tr>
<th>Employment Status</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed full-time</td>
<td>80.3%</td>
</tr>
<tr>
<td>Employed part-time</td>
<td>4.6%</td>
</tr>
<tr>
<td>Unemployed</td>
<td>5.5%</td>
</tr>
<tr>
<td>Retired</td>
<td>6.3%</td>
</tr>
<tr>
<td>Disabled, not able to work</td>
<td>1.3%</td>
</tr>
<tr>
<td>Student</td>
<td>2.1%</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>0.0%</td>
</tr>
</tbody>
</table>
Educational Background

- Educational attainment among survey respondents was higher than average for the county. One-third had completed high school or attained a GED and only three percent had not graduated high school. The balance of the respondents had either some college coursework or had actually received a two or four-year degree.

<table>
<thead>
<tr>
<th>Highest Education Level Completed</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Didn’t graduate from high school</td>
<td>3.0%</td>
</tr>
<tr>
<td>High School Diploma/GED</td>
<td>29.5%</td>
</tr>
<tr>
<td>Associate’s Degree</td>
<td>23.2%</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>22.8%</td>
</tr>
<tr>
<td>Some College; No Degree</td>
<td>16.9%</td>
</tr>
<tr>
<td>Master’s degree/Doctoral degree</td>
<td>4.2%</td>
</tr>
<tr>
<td>Some graduate school</td>
<td>0.0%</td>
</tr>
<tr>
<td>Other</td>
<td>0.4%</td>
</tr>
</tbody>
</table>
Findings from CHNA Surveys

Quality of Life in Burke County
Survey respondents were asked for their overall opinions on the quality of life in Burke County, as reflected in five measures.

- Respondents rated healthcare in Burke County very favorably. 63% agreed with the statement, “There is a good health care system in Burke County,” and 29% strongly agreed. A little over 8% took issue with the statement.
- Nearly 90% of respondents agreed/strongly agreed that “Burke County is a good place for children and youth.” Ten percent either disagreed or strongly disagreed with the statement.
- Correspondingly, nine out of ten respondents (90%+) agreed or strongly agreed that “Burke County is a good place to grow old.”
- Most respondents feel secure living in this community. More than 93% of respondents agreed or strongly agreed with the statement, “Burke County is a safe place to live.”
- The majority of respondents not only believe Burke County is a safe place; it is also a caring community ready to respond to people in need. Better than eight out of ten (80.4%) respondents agreed or strongly agreed that, “There is plenty of support for individuals and families during times of stress and need in Burke County.”
- Contrary to the positive perceptions of Burke County, there are serious concerns about job opportunities in the community. Two of every three respondents (63%) disagreed or strongly disagreed that “There are plenty of ways to earn a living in Burke County.”
<table>
<thead>
<tr>
<th>Statement</th>
<th>Number of Responses</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is a good health care system in Burke County.</td>
<td>12 41 396 180</td>
<td>1.91% 6.52% 62.96% 28.62%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Top Answer: Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Burke County is a good place for children and youth.</td>
<td>16 45 377 191</td>
<td>2.54% 7.15% 59.94% 30.37%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Top Answer: Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Burke County is a good place to grow old.</td>
<td>15 59 353 200</td>
<td>2.39% 9.41% 56.30% 31.90%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Top Answer: Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There are plenty of ways to earn a living in Burke County.</td>
<td>104 290 189 42</td>
<td>16.64% 46.40% 30.24% 6.72%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Top Answer: Disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Burke County is a safe place to live.</td>
<td>13 28 432 153</td>
<td>2.08% 4.47% 69.01% 24.44%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Top Answer: Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There is plenty of support for individuals and families during times of stress and need in Burke County.</td>
<td>20 100 398 108</td>
<td>3.19% 15.97% 63.58% 17.25%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Burke County’s Top Health Issues

Survey respondents were asked to express their views on the most important health issues facing Burke County. From a list of 20 diseases or issues, they were asked to select what they considered are the top five. This was a key driver question in that it was intended to assist the CHNA Task Force in identifying the most significant health challenge(s) to address in an Implementation Strategy. The survey found that respondents ranked the following as their top concerns:

1. Diabetes/Obesity:  79%
2. Drug Abuse (Rx & illegal drugs): 72%
3. Cancer: 62%
4. Heart Disease: 62%
5. Mental Health: 56%

These issues dominated the findings. The next issue closest to mental health, “aging problems,” rated nearly 20 percentage points lower as a top health concern in Burke County.
### Top Health Issues in Burke County

<table>
<thead>
<tr>
<th>Issue</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infant death</td>
<td>1.8%</td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>2.1%</td>
</tr>
<tr>
<td>Gun-related injuries</td>
<td>3.2%</td>
</tr>
<tr>
<td>Liver disease</td>
<td>5.0%</td>
</tr>
<tr>
<td>Kidney disease</td>
<td>6.4%</td>
</tr>
<tr>
<td>Motor vehicle accidents</td>
<td>8.8%</td>
</tr>
<tr>
<td>Sexually transmitted</td>
<td>8.8%</td>
</tr>
<tr>
<td>Asthma</td>
<td>8.8%</td>
</tr>
<tr>
<td>Infectious/contagious diseases (TB, ...</td>
<td>10.1%</td>
</tr>
<tr>
<td>Oral/dental health</td>
<td>14.0%</td>
</tr>
<tr>
<td>Stroke</td>
<td>18.5%</td>
</tr>
<tr>
<td>Teenage pregnancy</td>
<td>20.4%</td>
</tr>
<tr>
<td>Lung disease</td>
<td>23.0%</td>
</tr>
<tr>
<td>Aging problems</td>
<td>37.1%</td>
</tr>
<tr>
<td>Mental health</td>
<td>55.9%</td>
</tr>
<tr>
<td>Heart disease</td>
<td>61.6%</td>
</tr>
<tr>
<td>Cancer</td>
<td>62.4%</td>
</tr>
<tr>
<td>Drug abuse (prescription and illegal...)</td>
<td>72.0%</td>
</tr>
<tr>
<td>Diabetes/Obesity</td>
<td>78.5%</td>
</tr>
</tbody>
</table>
**Burke County’s Most Unhealthy Behaviors**

Survey respondents were asked to select what they considered the five unhealthiest behaviors from among 15 choices. There was significant correlation between these behaviors and risk factors associated with the top five health issues identified in the previous survey question.

1. Drug Abuse: 80%
2. Tobacco Use: 73%
3. Unhealthy Eating: 73%
4. Alcohol Abuse: 70%
5. Lack of Exercise: 66%

There was a 35 percentage point gap between “Lack of Exercise” and the next most frequently selected unhealthy behavior, indicating a high degree of consensus for the top five among respondents.
Burke County’s Top Social Issues

Because health issues and social issues are often closely intertwined, respondents were asked to identify what, in their views, were the top five social issues in Burke County. Economic and educational issues were top-of-mind among four out of five respondents.

1. Underemployment/poor-paying jobs: 80%
2. Lack of affordable health insurance/healthcare: 73%
3. Poverty: 73%
4. Neglect and abuse (of a child, a spouse, the elderly, etc.): 70%
5. Lack of education/dropping out of school: 66%
Insights into Individuals: Personal Health, Access to Care and Other Issues

In addition to seeking opinions on community-wide issues, the survey asked participants to share some insights into their personal health habits and experiences. Respondents were assured that they would not be identified in any way, that all answers would be kept confidential and that their replies would be aggregated with other surveys to produce the survey report. Those taking the paper version were asked not to write their name on the survey to further ensure confidentiality.

- **Most people believed they were healthy.** Each respondent was asked to rate his or health personal state of health on a four-point continuum from “very unhealthy” to “very healthy.” More than one in four respondents classified themselves as “very healthy,” and two in four rated themselves as “somewhat healthy.” The remainder acknowledged less than optimum health, classifying themselves as “somewhat” or “very” unhealthy.

![Chart showing how respondents rated their personal health]

<table>
<thead>
<tr>
<th>Health State</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very unhealthy</td>
<td>2.6%</td>
</tr>
<tr>
<td>Somewhat unhealthy</td>
<td>12.3%</td>
</tr>
<tr>
<td>Somewhat healthy</td>
<td>57.9%</td>
</tr>
<tr>
<td>Very healthy</td>
<td>27.2%</td>
</tr>
</tbody>
</table>
Health Insurance and Access to Care

- Most people had some form of insurance and did not have problems accessing care they needed during the previous 12 months. While lack of affordable health insurance emerged as one of Burke County five top social issues in the survey, four out of five respondents never found themselves without coverage during the previous year. One did five did. By very similar margins (80/20), the vast majority of respondents had no problems obtaining medical care they needed over the previous year.

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>During the past year, was there any time that you did not have any health insurance or coverage?</td>
<td>15.80%</td>
<td>84.20%</td>
</tr>
<tr>
<td>During the past year, did you have a problem getting medical care you needed?</td>
<td>16.4%</td>
<td>83.6%</td>
</tr>
</tbody>
</table>
• For respondents who did experience problems accessing care, insurance and cost were the top reasons. Two-thirds (65.1%) of respondents identified being uninsured and the high cost of care as barriers that prevented them for receiving care they needed during the previous year.
Regular check-ups are important. Asked when their most recent physical exam or routine checkup was, more than 90% of respondents had one in the previous 24 months. 75% said they had one in the past year.
Most respondents had access to prescription medications. More than 90% of those surveyed did not experience any issues over the previous year in filling prescriptions ordered by a physician. That said, those who reported having problems accessing medical care in the past year also had issues filling prescriptions, again citing health insurance and cost as the two principal barriers.

I couldn’t afford it/my cost was too high

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>I didn’t know where to go</td>
<td>0.0%</td>
</tr>
<tr>
<td>I had a problem with Medicare Part D</td>
<td>0.0%</td>
</tr>
<tr>
<td>I didn’t have transportation</td>
<td>5.9%</td>
</tr>
<tr>
<td>Pharmacy would not take my insurance or Medicaid</td>
<td>5.9%</td>
</tr>
<tr>
<td>My insurance didn’t cover what I needed</td>
<td>20.6%</td>
</tr>
<tr>
<td>I didn’t have health insurance</td>
<td>20.6%</td>
</tr>
<tr>
<td>I couldn’t afford it/my cost was too high</td>
<td>47.1%</td>
</tr>
</tbody>
</table>
Mental health resources in the community are not well understood. When asked what resource they would recommend to a family member or friend who needed counseling for a mental health, substance abuse, or developmental disability problem, respondents' answers varied widely. One in five respondents said they did not know what professional or agency to recommend.

<table>
<thead>
<tr>
<th>Resource</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctor</td>
<td>37.8%</td>
</tr>
<tr>
<td>Mental Health Partners</td>
<td>34.2%</td>
</tr>
<tr>
<td>Minister/pastor</td>
<td>34.2%</td>
</tr>
<tr>
<td>Burke Council on Alcoholism and Chemical...</td>
<td>30.2%</td>
</tr>
<tr>
<td>Counselor or therapist in private practice</td>
<td>28.4%</td>
</tr>
<tr>
<td>Narcotics Anonymous</td>
<td>12.6%</td>
</tr>
<tr>
<td>School counselor</td>
<td>10.8%</td>
</tr>
<tr>
<td>Hospital Emergency Department</td>
<td>10.8%</td>
</tr>
<tr>
<td>I don’t know</td>
<td>20.3%</td>
</tr>
<tr>
<td>Children’s Developmental Services Agency</td>
<td>8.1%</td>
</tr>
<tr>
<td>Vocational Rehabilitation/Independent Living</td>
<td>7.2%</td>
</tr>
<tr>
<td>Other</td>
<td>1.4%</td>
</tr>
</tbody>
</table>
Levels of exercise and physical activity were inconsistent. When asked how often they exercise for at least 30 minutes each week, outside of physical activity on-the-job, respondents were even divided on their patterns. Nearly half, however, reported little to no exercise and about a third reported engaging in exercise or physical activity two-to-three times weekly.
Risk factors for diabetes were especially high among the respondents. One out of five respondents (20.5%) self-reported that they either have diabetes or are at risk for the disease. Moreover, more than 37% of respondents described themselves as overweight or obese; more than 33% have high blood pressure, and just under 24% say their cholesterol is high. Taken together, the results paint a picture of a population with potential co-morbidities and/or risk factors for diabetes, heart disease, cancer and mental health issues.
Prioritizing Community Health Needs

Statistics abound on the health of people in Burke County. Monitored and made available to the public by government agencies, professional associations, medical researchers and various non-profit organizations, they can be helpful in identifying trends and comparing one state or county’s health status with others.

While statistics like these helped to affirm what we thought to be true, our CHNA relied more on the people of Burke County as our primary source of information. Through their input, a surprising consensus emerged in the CHNA process on the most important health challenges facing them personally, the community at large and specific populations in it. The CHNA process identified 20 top-of-mind health issues facing Burke County residents (see page 44). There was a gap of 20 percentage points between the fifth most highly rated issue and the sixth, a statistical dividing line that helped the CHNA Task Force establish priorities.

The credibility of Blue Ridge HealthCare’s CHNA was further supported by the Burke County Health Department’s Community Health Assessment or CHA conducted in 2011-2012. The two assessments yielded significant agreement on the county’s most pressing health challenges among the 600 people surveyed by BRHC and the 1900 people sampled by the Health Department.

<table>
<thead>
<tr>
<th>Condition/Disease</th>
<th>BRHC Survey Ranking</th>
<th>% of Respondents Assigning Rank</th>
<th>BCHD Survey Ranking</th>
<th>% of Respondents Assigning Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Obesity/Diabetes</td>
<td>1</td>
<td>78.5%</td>
<td>1</td>
<td>76.7%</td>
</tr>
<tr>
<td>Mental Health</td>
<td>5</td>
<td>55.9%</td>
<td>2</td>
<td>62.0%</td>
</tr>
<tr>
<td>Cancer</td>
<td>3</td>
<td>62.4%</td>
<td>3</td>
<td>59.3%</td>
</tr>
<tr>
<td>Heart Disease</td>
<td>4</td>
<td>61.6%</td>
<td>5</td>
<td>49.9%</td>
</tr>
<tr>
<td>Drug Abuse</td>
<td>2</td>
<td>72.0%</td>
<td>**</td>
<td>**</td>
</tr>
</tbody>
</table>

*Listed as “Diabetes/Obesity” on BRHC Survey and “Obesity/Overweight” on Health Department survey. Diabetes listed separately on Health Department survey and ranked 4\textsuperscript{th} out of top five with 52.5\% of respondents assigning the rank.

** Drug abuse was not one of the top five issues identified on the Health Department survey.
As people representing the broad interests of the community, members of BRHC’s CHNA Task Force provided another highly credible, primary source of information on Burke County’s most prevalent health problems. In their various roles, they serve on the front lines with people of all socioeconomic stripes, including the medically underserved who face disparities in health care.

The CHNA Task Force endorsed Diabetes as the principal focus of its community health improvement strategy over the next three years, based on several criteria:

- **Increasing Incidence** – Statistics backed experience and community perception that diabetes is a significant and increasing medical condition in Burke County. According to the Centers for Disease Control (CDC), the number of new cases of diabetes in Burke County increased 60% between 2004 and 2010, based on data released by the CDC in April 2013.

<table>
<thead>
<tr>
<th>Year</th>
<th>New Cases</th>
<th>Rate/1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>534</td>
<td>9.7</td>
</tr>
<tr>
<td>2005</td>
<td>658</td>
<td>11.0</td>
</tr>
<tr>
<td>2006</td>
<td>662</td>
<td>11.0</td>
</tr>
<tr>
<td>2007</td>
<td>715</td>
<td>11.9</td>
</tr>
<tr>
<td>2008</td>
<td>709</td>
<td>11.7</td>
</tr>
<tr>
<td>2009</td>
<td>750</td>
<td>12.6</td>
</tr>
<tr>
<td>2010</td>
<td>802</td>
<td>13.4</td>
</tr>
</tbody>
</table>

- **Co-morbidities and Related Conditions** – One of the reasons diabetes is increasing in Burke County is that it shares underlying, modifiable risk factors for other high-incidence health conditions in the community, including obesity, heart disease and cancer. For example, a program that reduces obesity – the most expensive risk factor for diabetes -- may not only lower that risk. It could also have a positive impact on preventing hypertension, a risk factor for heart disease, stroke. The CHNA Task Force believed that a plan to identify people with pre-diabetes or diabetes could have implications beyond
this one chronic disease. According to the N.C. Department of Health & Human Services, Division of Public Health’s report, “Overweight, Obesity, and Diabetes Contributing Health Behaviors in North Carolina,” obesity alone could contribute to 1.2 million new cases of diabetes in North Carolina over the next 20 years, if current trends continue. One goal of the task force is to begin to bend the curve downward on that trend in Burke County.

- **The Estimated Feasibility and Effectiveness of Potential Interventions** – The Task Force placed a high priority on evidence-based approaches that would help residents of Burke County reduce their risk of developing diabetes and, should they have the disease, self-manage it with support from providers, health advocates and others. The CDC-led National Diabetes Prevention Program (DPP) provided an evidence-based model for Carolinas HealthCare System’s “Pre-D: Reverse the Risk” program. The Task Force plans to incorporate this diabetes prevention and care model into its pre-diabetes/diabetes program in Burke County.

- **The Importance the Community Places on Addressing the Need** -- Concerns over diabetes and obesity are topics of conversations and grass-roots actions all across Burke County. Primary care physician practices, certain retail pharmacies, the health department, community health fairs and others are engaged in various, but isolated, efforts to raise awareness of diabetes and screen for risk factors. While there is wide recognition of the prevalence of diabetes and a genuine desire to do something, there has not been a sustained plan that brings key community resources together under a singular, coordinated battle plan. The CHNA Task Force is dedicated to serving a catalyst to creating a robust, growing partnership with the community. It will hold itself accountable for results over the course of a three-year plan developed with input from the community. Communications with the community on the progress of the plan will be essential.
The 2013 CHNA Implementation Strategy

According to the N.C. Department of Health & Human Services (DHHS), Division of Public Health, diabetes and its closely related conditions (notably overweight and obesity) are among the most costly and harmful health problems in North Carolina. Rates for these conditions are among the highest in the nation and are increasing at what DHHS has called “epidemic” proportions.

If adult obesity rates continue to rise at the same rate, the obesity rate in North Carolina could reach 58 percent, with healthcare costs climbing 17.6 percent by 2030, DHHS has found. If the trend continues, obesity could contribute to 1.2 million new cases of diabetes in the state over the next 20 years. Part of the reason both conditions are increasing at epidemic rates is that they share underlying, yet modifiable, risk factors such as poor eating habits, lack of physical activity and inadequate access to primary care.

The CHNA process, initiated at Blue Ridge HealthCare for the first time in 2013, revealed that people in Burke County understand and are deeply concerned about the magnitude of diabetes in their own community. A survey of more than 600 people conducted in 2013 found that, at 78.5%, diabetes significantly outranked drug abuse, cancer, heart disease and mental health among the five most serious concerns facing the residents of Burke County. *(Diabetes was also number one among the top five concerns identified by more than 1900 persons surveyed by the Burke County Health Department in its 2011-12 Community Health Assessment.)*

Moreover, members of a task force created to partner with BRHC in the CHNA process understand the ramifications of diabetes on the community and have made it the singular focus of the Implementation Strategy. Members believe that a focus on education, prevention, and treatment/management of pre-diabetes and diabetes could have positive implications, even on the community’s other identified health needs. In addition to physicians and other healthcare workers from BRHC, the Task force members include representatives from the Burke County Health Department, a non-profit health coalition (Burke Health Solutions), United
Way and others whose missions are generally focused on medical, socially and economically disadvantaged people in the county.

**The Action Plan**

The CHNA Task Force has created an action plan to address diabetes. The Task Force fully expects the action plan to be a living document, subject to change over the next three years as:

- Task force membership expands to include additional community partners and leaders
- Additional input is received from patients/family members, community organizations, providers, healthcare workers, and other participants in the diabetes initiative
- Resources, both human and financial, expand due to new funding sources, new volunteers and increased community support
- As research and the experience gained through other diabetes initiatives offer opportunities to modify our approach.

**Year 1 of the Implementation Strategy**

The first six months of the Implementation Strategy will be devoted to setting the stage for the next three years of the diabetes initiative. This will include marshaling, preparing and mobilizing resources required to formally launch a campaign in the second half of 2014. The first year’s campaign will generally focus on pre-diabetes.

Pre-diabetes is a condition in which blood glucose levels are higher than normal but not high enough to be classified as diabetes. It is a major risk factor for type 2 diabetes. Changes in diet and physical activity leading to weight loss are effective in reducing pre-diabetes and diabetes.

Key goals and metrics in year one include

- Engage 2500 people in Burke County to complete a health risk assessment (HRA)
- Identifying 500 people from an HRA with or at risk for pre-diabetes or diabetes
• Enrolling 100 at risk people in a program that will include preventive services and/or treatment options

**Years 2 and 3 of the Implementation Strategy**
The second and third years of the Implementation Strategy (2015-2016) will include a greater emphasis on diabetes, while continuing pre-diabetes-related activities begun in year one.

Diabetes (or Diabetes Mellitus) is a condition in which the body either does not produce enough insulin, or does not properly respond to insulin. Insulin, a hormone produced in the pancreas, enables cells to absorb glucose (sugar) in order to turn it into energy. A person with diabetes either does not make enough insulin, or fails to respond to their own insulin, or both. This causes glucose to accumulate in the blood, often leading to various complications.

Key goals and metrics in both years two and year three include:

• Engaging 5000 people in Burke County to complete an HRA
• Identifying 1000 people from an HRA with or at risk for pre-diabetes or diabetes
• Enrolling 200 at risk people in a program that will include preventive service and/or treatment options

Other sample metrics:

• Number of A1c blood tests provided
• Number of people screened identified as pre-diabetic or diabetic
• Number of people attending informational sessions on diabetes
• Number of people enrolled in/completing a diabetes prevention/disease management programs
• Number of medical underserved without a physician who are placed with physician/medical home
Other metrics will be added as they relate to specific tactics in the Implementation Strategy, e.g. number of volunteers completing training as health advocates or number of physicians attending continuing education on diabetes management.

The Action Plan is structured to lend a high degree of accountability across six major strategies:

1. Pre-diabetes Intervention in Burke County
2. Provider Education/Participation in Initiative
3. Faith-based Community Partnerships
4. Reduce Risk Factors for People with Type 2 Diabetes: Healthy Eating, Physical Activity
5. Increased Community Collaboration
6. Financial Support

While the format of the Action Plan may be modified by the CHNA Task Force for clarity or to allow additional details, it includes

- Due dates that will be assigned for all tactics and that will begin in 2014
- Status of each action step based on red (not begun), yellow (in progress) or green (completed)
- Leader responsible for action
- Progress notes on the action step
Implementation Strategy
Calendar Year 2014
To Be Updated Annually
<table>
<thead>
<tr>
<th>Strategy/Action</th>
<th>Due Date</th>
<th>Status</th>
<th>Leader(s)</th>
<th>Progress Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I. Strategy: Pre-diabetes/Diabetes Interventions in Burke County</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Identify stakeholders and develop internal and external communications plan</td>
<td>Q1 2014</td>
<td>In progress</td>
<td>Marking &amp; CHNA Task Force</td>
<td></td>
</tr>
<tr>
<td>• To announce the initiative</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>• To provide information on pre-diabetes and diabetes risk factors</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• To provide regular updates to community partners, practices, news media and stakeholders</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>b. Partner with Carolinas HealthCare System on Pre-D Challenge, adapting as needed for Burke County effort</td>
<td>Q1 2014</td>
<td>In progress</td>
<td>Director of Community Outreach</td>
<td></td>
</tr>
<tr>
<td>c. Offer free screenings/education through a “Know Your Numbers” campaign:</td>
<td>Q4 2014</td>
<td>In progress</td>
<td>Community Outreach RN/ Diabetes Education RN (Kayga, Ealy, Bonorden)</td>
<td></td>
</tr>
<tr>
<td>1) Year 1 - 2500 people complete pre-diabetes Health Risk Assessment; Identify 500 at risk; Enroll 100 in prevention program</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Years 2&amp;3 – 5000 complete HRA each year; Identify 1000 with diabetes risk; Enroll 200 in treatment program</td>
<td></td>
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<tr>
<td>3) Include A1C in all screening panels.</td>
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</tr>
<tr>
<td>e. Achieve a completion rate of at least 20% among people identified as at-risk and enrolled in preventive/treatment programs/services offered through BRHC</td>
<td>Q4 2014</td>
<td>In progress</td>
<td>Director of Community Benefit</td>
<td></td>
</tr>
</tbody>
</table>
## II. Strategy: Provider Education/Participation in Initiative

### a. Identify a common set of guidelines for use by the Blue Ridge HealthCare Medical Staff, extenders and Nursing for the practice of diabetes self-management, education, training and support (NCQA, AAFP, ADA, AADE, etc.)
- **Q1 2014** In progress
- **CMO Continuing Care, VP Nursing, Health Dept. Good Sam**

### b. Develop universal criteria for use by all physicians, extenders, nurses and outreach team members in defining pre-diabetes and diabetes indicators to lend consistency to Implementation Strategy
- **Q1 2014** In progress
- **CMO Continuing Care, VP Nursing Health Dept., Good Sam**

### c. Educate and engage 100% of all family practice physicians, internal medicine physicians, their advanced practitioners and nurses on the Implementation Strategy
- **Q3 2014** In progress
- **CMO Continuing Care, VP Nursing Health Dept., Good Sam**

### d. Conduct a series of (AMA Category I for physicians, CE Direct & Advanced Practice Nursing Council Educational sessions for RNs) continuing education events on diabetes-related topics, population health management, and the Implementation Strategy
- **Q3 2014** In progress
- **CMO Continuing Care/CNE, VP Nursing/Community Agencies (Health Dept., Good Sam)**

## III. Strategy: Faith-based Community Partnerships

### a. Conduct series of meetings with clergy in Burke County to explain concept of congregation-based health advocates and to explore interest in participating in diabetes initiative
- **Q1** In progress
- **CMO Continuing Care**
<p>| | | | |</p>
<table>
<thead>
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</thead>
<tbody>
<tr>
<td>b. Link with leaders of Faith-based Community Partnerships at Carolinas HealthCare System and others to explore structure, best practices, etc.</td>
<td>Q1</td>
<td>In progress</td>
<td>CMO Continuing Care</td>
</tr>
<tr>
<td>c. Recruit health coaches from internal sources and congregations</td>
<td>Q4 2014</td>
<td>In progress</td>
<td>CMO &amp; SVP Medical Affairs/ CMO Continuing Care</td>
</tr>
<tr>
<td>d. Determine feasibility of including pre-med, pre-nursing and pre-CNAs as health coaches</td>
<td>Q4 2014</td>
<td>In progress</td>
<td>CMO &amp; SVP Medical Affairs/ CMO Continuing Care</td>
</tr>
<tr>
<td>e. Conduct orientation for all health coaches</td>
<td>Q2 2016</td>
<td>Not Started</td>
<td>CMO &amp; SVP Medical Affairs/ CMO Continuing Care</td>
</tr>
<tr>
<td>f. Develop and require regular use of tracking and reporting tools on health coaches’ activities</td>
<td>Q2 2016</td>
<td>Not Started</td>
<td>CMO &amp; SVP Medical Affairs/ CMO Continuing Care</td>
</tr>
</tbody>
</table>

**IV. Strategy: Reduce Risk Factors for People with Type 2 Diabetes – Healthy Eating, Physical Activity**

a. Improve nutrition for medically and financially needy people with diabetes
   - By increasing access to healthy foods
   - Exploring potential partnerships with operators of existing community gardens, food banks, church-based food closets, etc.
   - Working with the Burke County Extension Service Master Gardener program and others with expertise, explore the feasibility of new community gardens on the Morganton
### Increased Community Collaboration

#### a. Expand the CHNA Task Force to include additional organizations and other sectors of the community (business, educational, cultural, etc.) to increase exposure for the diabetes initiative to additional at-risk individuals

<table>
<thead>
<tr>
<th>Date</th>
<th>Status</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1 2015</td>
<td>In progress</td>
<td>Director of Community Outreach/CHNA Task Force</td>
</tr>
</tbody>
</table>

For example, reach out to Broughton Hospital (Add Vivian Streeter to Task Force), Burke County Public Schools, Burke United Christian Ministries, NC School for the Deaf and others

#### b. Educate people with diabetes and the community as a whole on the role of obesity in diabetes risk factors and the importance of exercise and physical activity.

- Develop a guide that provides information on community resources for free and low-cost exercise and physical activity programs.
- Work with key resources (Phifer Wellness Center, local recreational centers, city/county governments) on free or low-cost programs that encourage at-risk and medical needy residents to engage in regular exercise/physical activity program.

<table>
<thead>
<tr>
<th>Date</th>
<th>Status</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q4 2014</td>
<td>In progress</td>
<td>Director of Community Outreach CHNA Task Force</td>
</tr>
</tbody>
</table>

#### Working with restaurants in Burke County to explore how to label “diabetes friendly” menu offerings

- Hospital campus of Blue Ridge HealthCare, at schools in the Burke County Public Schools system, at Western Piedmont Community College

- For example, reach out to Broughton Hospital (Add Vivian Streeter to Task Force), Burke County Public Schools, Burke United Christian Ministries, NC School for the Deaf and others

- Director of Community Outreach CHNA Task Force
### Anticipated Impact

As participating providers and supporting organizations work together to build positive relationships and partnerships, we hope to see the following changes among pre-diabetic and diabetic people in our community:

- Increased utilization of clinical care appointments (home, group, medical home)
- Consistent adherence to diabetes standards of care
- Decreased percentage of unnecessary emergency department or urgent care visits
- Reduced hospital length of stay and reduced unscheduled readmission rates
- Improved metabolic control (HbA1c, lipids, BP, weight, BMI) in participating patients
- Increased continuity and utilization of healthy lifestyle resources (healthy foods, exercise/physical activity) by patients with diabetes
- Improved medication adherence (pharmacy refill tracking)
- Improved patient satisfaction
Another measure of success will be the willingness of patients themselves to become advocates or volunteers in our efforts to improve the health of the community.

**Evaluating the Impact**

Health Risk Assessments, tests at free health screenings and appointments with providers will yield significant data that can be used to evaluate the impact of this initiative. Any data gathered and reported publicly will be aggregated to ensure patient confidentiality. A reporting mechanism will be needed to support this process.

Provider education is an essential component of the Action Plan. One of the goals of these educational events will be promoting the adoption of common treatment standards, protocols and criteria re diabetes among community physicians. This will provide a common basis for comparison when evaluating the impact of the initiative.

Blue Ridge HealthCare will support physicians on the CHNA Task Force and others in developing a tracking and reporting tool designed to evaluate the impact of the risk-reduction and treatment tactics both on pre-diabetic and diabetic patients.

A plan will be developed during the first six months of 2014 to meet this need.

**Blue Ridge HealthCare Programs & Resources**

As part of its Community Benefit, Blue Ridge HealthCare Hospitals will commit significant direct and in-kind resources to support the diabetes initiative and its goals. For FY 2104 (January-December 2014), BRHC will invest approximately $373,000 into the Implementation Strategy, exclusive of the cost of care for uninsured diabetic patients who receive medical care as a direct result of the CHNA initiative.
This budget includes, but will not be limited to:

- Labor costs for any BRHC employee while personally involved in a sanctioned diabetes initiative event
- Community Outreach Services (Scheduling, managing, staffing, promotion, results entry, facility rental, refreshments, etc.)
- Cost of laboratory services, including blood testing supplies, staffing and related services
- Direct services by Graduate Medical Education Residents in Family Medicine and Internal Medicine, under the supervision of faculty physicians
- Costs associated with providing Continuing Medical Education on diabetes
- Costs associated with care and services for uninsured, diabetic patients identified through the diabetes initiative and provided by any physician practice in the Blue Ridge Medical Group (employed physician group)
- Physician leadership in program development, including interface with the Medical Staff
- Diabetes Educator services
- Print cost of any informational materials (collateral, forms, posters, flyers, etc.) supporting the initiative
- Expenses associated with meetings held at BRHC Hospitals Morganton and/or Valdese campus
- Grant-writing and management of grants awarded (BRHC Foundation)
- Cost of media advertising promoting the initiative’s screenings, health information sessions, etc.
- Consultation by leaders from Nursing, Pharmacy, Finance, IT, Emergency Department, Quality & Safety, Education, Marketing & Public Relations, Legal and Compliance Services, Graduate Medical Education, Continuing Care and others, as needed.
**Planned Collaboration**

Blue Ridge HealthCare Hospitals has long recognized that any serious effort to attack a major health issue in Burke County can only succeed through a broad-based community partnership. The first step in responding to the new CHNA requirement was to establish a CHNA Task Force comprised of leaders from the community and BRHC, a diverse group that we intend to evolve into a true and lasting partnership. A high priority was placed on including representatives in the Task Force from community agencies and organizations whose target populations were principally the uninsured or under-insured, medically needy of Burke County.

When the CHNA surveys revealed diabetes as number one in the top five health concerns among Burke County, it reaffirmed that the resources of BRHC alone were insufficient to attack such an insidious and pervasive disease. The CHNA Task Force will be an ever-evolving coalition that new allies will join as we learn, grow and incorporate new strategies into our effort to improve community health.

As the Implementation Strategy is activated beginning in 2014, BRHC and the CHNA Task Force fully anticipates identifying and adding new community partners. For now, the CHNA Task Force includes the following organizations that will collaborate with BRHC Hospitals to make a positive impact on diabetes prevention and care in Burke County.

- Burke County Health Department
- Blue Ridge Medical Group
- Burke Health Solutions
- Burke County United Way
- Carolinas HealthCare System
- The Good Samaritan Clinic
- Burke County Cooperative Extension Service
- Blue Ridge HealthCare Foundation
Priority Needs Not Addressed in the Implementation Plan

The survey employed in BRHC Hospital’s CHNA process presented respondents with a list of 20 diseases and health conditions. From this list, they were asked to select which ones they considered to be the top five in Burke County. There was a significant gap between the fifth most selected item and those following. Based on the percentage of respondents who chose drug abuse, cancer, mental health and heart disease among the top five, these are problems that need attention. Obesity/diabetes was the top choice and will be the central focus of community health improvement by BRHC Hospitals for the next three years. This should not be interpreted to mean that the organization is not actively involved in the remaining four issues in the top five. They are simply not the focus of the CHNA and its Implementation Strategy.

Cancer – BRHC’s clinical services includes North Carolina’s first Cancer Center to win accreditation by the American College of Surgeons Commission on Cancer. The Center provides both medical and radiation oncology treatments, with advanced treatment planning capabilities. As a service of BRHC Hospitals, the Cancer Center reflects the organization’s mission of treating all persons, regardless of their ability to pay. The Center is renowned for its Community Outreach activities, termed a ‘best practice” in North Carolina. Outreach includes:

- Providing screening mammograms to hundreds of medically needy women every year from Burke and surrounding counties
- Providing free screenings for skin cancer, prostate and colorectal cancer at health fairs in the community
- Sponsoring and/or hosting numerous support groups for cancer patients, cancer survivors and their families and friends
- Participating in the American Cancer Society’s “Look Good, Feel Better” program for newly-diagnosed cancer patients
- Participating in the American Cancer Society’s Relay for Life, the Komen Foundation’s Race for the Cure, the “Pink Heals” project, “Putting for the Pink” fundraiser and other activities during the year whose proceeds benefit cancer patients.
Resource constraints (financial and staffing) do not allow for a significant expansion of these activities at the present. However, BRHC Hospitals is exploring an affiliation with the Levine Cancer Institute at Carolinas HealthCare System which could bring additional resources to bear in the future.

**Heart Disease** – Five years ago, BRHC Hospitals greatly expanded access to medical and interventional cardiology for Burke County residents with the opening of the Sanger Heart & Vascular Institute at Blue Ridge HealthCare. As a result, the organization has significantly expanded community education on cardiovascular disease. Sanger physicians lead free seminars on heart disease, provide web-based information, and participate in news stories about heart health in the community. For several years, they have provided free EKG’s to about 2000 middle and high school athletes, as part of their required pre-season physicals. If an EKG reveals a cardiovascular risk, Sanger provides more extensive tests without charge. This has proven to save the lives of several students in recent years who had serious, undiagnosed cardiac issues. It is anticipated that the new focus on diabetes and its risk factors will have a positive impact on hypertension, poor nutrition, exercise and other risk factors contributory to heart disease. As the diabetes initiative proceeds, BRHC Hospitals’ cardiology resources will be incorporated.

**Mental Health** – North Carolina’s Mental Health System has been a source of serious debate in the NC General Assembly, among providers and patients, and in communities. Cost, quality, safety, management and inadequate access to behavioral health services are among the hot button issues. BRHC Hospitals operates an inpatient behavioral care unit, typically at capacity. The more pressing issue, however, is inadequate community-based outpatient mental healthcare services across the state. Coincidentally, Burke County is home to Broughton Hospital, the largest psychiatric hospital operated by the State of North Carolina within the Department of Health and Human Services under the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services. A new hospital to replace the original structure is currently under construction. However, the new hospital was not designed to expand in inpatient care or close the gap in community-based outpatient psychiatric care.
The result is that mental health patients are turning to BRHC Hospitals two Emergency Departments in increasing numbers. Since placing these patients in more appropriate facilities is especially challenging, given the shortage of facilities and beds across the state, EDs face overcrowding, and other patients face delays in being seen. BRHC Hospitals is working with various stakeholders on potential solutions. Residents in Burke County are fully aware of the problem and, not surprisingly, rated it among their top five concerns. BRHC is committed to being a participant in the community discussion on mental health, but this is an ongoing issue that will ultimately require leadership at the state level to meet the needs.

**Illegal and Prescription Drug Abuse** -- This is a serious issue in Burke County, as reflected by its selection as one of its top five health problems. Law enforcement is taking the lead on an approach that seeks to have extensive involvement by a wide range of interests in the community. Given the physical, mental, socioeconomic and financial impact of illegal and prescription drug abuse, Blue Ridge HealthCare will be a participant and a community partner in this effort but will look to the expertise and experience of law enforcement to effectively lead on addressing this need.