2016 Community Health Needs Assessment

Approved by the Northeast Georgia Medical Center Board August 23, 2016

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Northeast Georgia Medical Center

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Executive Summary

NGMC: *Improving the Health of the Community in All That We Do*

As the trusted healthcare provider for this region, Northeast Georgia Medical Center (NGMC) and the communities it serves have long shared a symbiotic relationship where each worked to care for the other knowing that a community without a strong hospital could not prosper, and that the hospital could not stay strong without the support of its community.

NGMC serves over 800,000 people in 13 counties through two hospital campuses, NGMC Gainesville and NGMC Braselton, providing technology and expertise that saves lives and enhances quality of life.

As a **not-for-profit hospital,** all revenue generated above operating expenses is returned to the community through improved services and innovative programs, and NGMC's Charity Care Policy supports the provision of care for indigent patients, regardless of their ability to pay. In fact, in 2015, NGMC's cost of caring for the indigent in Hall County was $19.8 million and another $15.4 million to residents outside Hall County. Since 2000, NGMC has provided nearly three times the amount of indigent and charity care set forth in requirements by the Department of Community Health for successful passage of a certificate of need for new services.

NGMC continues to invest in projects to improve the care we deliver to our patients and to enhance patient safety. The organization invested $200 million in the NGMC Braselton campus and has also recently invested in Trauma Level II Designation as well as in a system for electronic medical record (EPIC).

For 65 years, Northeast Georgia Medical Center has worked to improve the health of our community in all we do. We are dedicated to improving the health and quality of life of the people of Northeast Georgia, and we value cooperative efforts with community organizations and other healthcare providers to improve the health status of area residents.

Community Health Needs Assessment

NGMC has completed community health needs assessments (CHNAs) since the late 1990s. In 2015, NGMC engaged Truven Health Analytics to help collect and analyze the data for the 2016 CHNA and to compile a final report made publicly available on September 30, 2016.

Whereas previous assessments focused mainly on Hall County, the 2016 project expanded to include other counties in our service area. The geographic boundaries for the study encompass the counties where 90% of NGMC hospital admissions originate. These counties were grouped into four communities based on consideration for patient volume, location, and the broad interests of the community, including medically underserved populations, low-income persons, minority groups, or those with chronic

disease needs. The four communities are:

- Primary Service Area (PSA)
- Secondary Service Area 400 (SSA 400)
- Greater Braselton Service Area (GBSA)
- Secondary Service Area North (SSA North)

Northeast Georgia Medical Center Community Health Needs Assessment
Map of Communities Served

CHNA Community	ZIP Codes in Community	Total ZIP Codes in County
PSA	**9**	
Hall County, GA*	9	12
GBSA	**22**	
Jackson County, GA	9	9
Barrow County, GA	4	4
Gwinnett County, GA	4	28
Hall County, GA*	3	12
Banks County, GA*	2	3
SSA 400	**3**	
Lumpkin County, GA	2	2
Dawson County, GA	1	1
SSA North	**27**	
Rabun County, GA	8	8
Habersham County, GA	6	6
Stephens County, GA	4	4
Union County, GA	3	3
White County, GA	3	3
Towns County, GA	2	2
Banks County, GA*	1	3
Grand Total	**61**	**85**

**All ZIPs for Hall and Banks counties are included but fall into different community definitions*

Source: Northeast Georgia Medical Center / Truven Health Analytics, 2016

Process

A quantitative and qualitative assessment was performed by Truven Health. More than 100 public health indicators were evaluated for the quantitative analysis. Community needs were identified by comparing each community's value(s) for each health indicator to that of the state and nation. Where the community value was worse than the state, the indicator was identified as a community health need. After initial community needs were identified, an index of magnitude analysis was conducted to determine the relative severity of the issue.

Input from the community was gathered for the qualitative analysis via focus groups and interviews conducted by Truven Health. Focus group participants and interviewees included community leaders, public health experts, and those representing the needs of minority, underserved, and indigent populations. Additional input from low-income, Latino, and uninsured residents was gathered in the form of a survey conducted by a third party.

The outcomes of the quantitative and qualitative analyses were aligned to create a comprehensive list of health needs for each community. Next, the health needs were compiled to create a health needs matrix for each community in order to illustrate where the qualitative and quantitative data correspond as well as differ.

In May 2016, a prioritization meeting was held in which the health needs matrix was reviewed by the NGMC CHNA workgroup and members of an appointed NGMC Board Level Committee to establish and prioritize significant needs for the communities. Members of these groups included community leaders from various Northeast Georgia Health System boards, as well as NGMC representatives with high community interaction such as through the emergency department and case management. The meeting was moderated by Truven Health and included an overview of the community demographics, summary of health data findings, and review of each community's identified health needs.

Participants all agreed the health needs which deserved the most attention and considered significant were those identified both through the quantitative analysis as worse than benchmark by a greater magnitude, as well as identified as a common theme through the qualitative analysis.

The NGMC Board Level Committee met in March 2016 to identify several criteria for prioritizing the significant health needs for each community. They were:

1. Alignment – with mission, vision and values of organization
2. Consequences – disability, premature death, social, economic or other burdens to the community
3. Magnitude – number of people the problem affects, either actually or potentially
4. Root Cause – issue is a root cause of multiple problems, possibly affecting multiple issues

Utilizing that criteria, each community's significant health needs were rated on the criteria resulting in an overall score. The session participants subsequently reviewed the prioritized health needs for each community and made a recommendation as to which of the prioritized significant health needs NGMC should address based on the scoring process. The recommendation was based on the needs with the highest overall score, as well as commonality across the four communities in order to leverage resources effectively.

In July 2016 the NGMC senior leadership team reviewed the health needs identified in the assessment as well as the recommendations made by the Northeast Georgia CHNA Workgroup and members of the NGMC Board Level Committee. The leadership team took into consideration the impact of the need on the community, current organizational initiatives, as well as organization's strengths, resources, and ability to impact the health needs identified. After careful consideration, the leadership team validated, refined, and expanded the list of health needs NGMC will address. The finalized community health needs to be addressed by NGMC by geographic area are as follows:

Communities	Community Health Needs				
	Septicemia	**Access to Care**	**Diabetes**	**Cancer**	**Injury**
PSA	☑	☑	☑		☑
GBSA	☑	☑	☑	☑	☑
SSA 400	☑	☑	☑	☑	☑
SSA North	☑	☑	☑	☑	☑

A description of each chosen need is included in the body of the full CHNA report. Subsequently, the hospital facility will develop an implementation strategy including specific initiatives to address the chosen health needs. This implementation strategy will be completed and adopted by NGMC on or before February 15, 2017.

A summary report of interventions and activities outlined in the implementation strategy drafted after the 2013 community needs assessment was also completed and is included in the full report. The 2016 community health needs assessment for NGMC was approved by the NGMC Board and the full assessment is available to the public at no cost for download on our website at www.nghs.com.

This assessment and corresponding implementation strategies are intended to meet the requirements for community benefit planning and reporting as set forth in federal law, including but not limited to: Internal Revenue Code Section 501(r).

For more information, contact Christy Moore, Community Health Improvement Manager, at 770-219-8097 or at christy.moore@nghs.com.

CORE VALUES

Northeast Georgia Medical Center & Health System prides itself on four core values, all of which help achieve the mission of improving the health of our community in all we do. These values shape the daily interactions between physicians, staff, volunteers, board members, patients and their loved ones.

Respectful Compassion

I impact life's most sacred moments

From birth to the end of life to miraculous recovery, we know that life-changing moments are happening around us every day.

Deep Interdependence

I can't do my job without you

We are an organization focusing on accountability and team strength. We rely on each other to do our jobs with excellence.

Responsible Stewardship

What I do today ensures tomorrow

Decisions we make today make an impact on the future of our organization, our land and the community around us.

Passion For Excellence

I bring my best every day

We bring passion for excellence into each and every moment, regardless of the challenges with which we are met.

Northeast Georgia Medical Center

Northeast Georgia Medical Center (NGMC) provides a comprehensive range of acute care and specialty services through two campuses: a 100-bed hospital in Braselton and a 557-bed regional referral hospital in Gainesville. NGMC serves the area's low-income, uninsured, underinsured and other vulnerable populations. NGMC Gainesville serves as the regional safety net hospital, with approximately half of its patients coming from outside of Hall County. As a not-for-profit hospital, NGMC reinvests all funds in excess of operating expenses into healthcare services for the community. The Medical Center receives no tax revenue from Hall or other counties served, and services are funded by revenue generated from operations.

Located in Georgia's fastest growing region, the 65-year-old hospital has expanded considerably in recent years to meet demand, investing a quarter of a billion dollars to update its aging plant in Gainesville and another $200 million-plus to build the new NGMC Braselton campus and expanding its services to include obstetrics and radiation therapy. NGMC is part of Northeast Georgia Health System. Led by volunteer boards made up of community leaders, the Health System serves almost 800,000 people in more than 13 counties across Northeast Georgia.

In 2016, NGHS celebrated 65 years of serving northeast Georgia.

NGMC's quality of care consistently ranks among the top in the nation. For 11 years in a row, NGMC's cardiac services have been best in state, and NGMC has been named Georgia's #1 Hospital for three years in a row and among the Top 10 in the nation.

NGMC provided charity care to Hall County residents at a cost of $19.8 million in 2015 with another $15.4 million provided to regional residents outside Hall County. The Medical Center's charity care policy provides financial assistance up to 300 percent of the poverty level – double the amount generally provided by other hospitals across the State.

The hospital is a key participant and fiscal sponsor in programs aimed at treating low-income and uninsured patients, including the Good News Clinics, the largest free health care clinic in Georgia, and Health Access Initiative (HAI), a local service that matches financially eligible patients to specialty physicians and provides access to care, among other services.
Additionally:

- Since 2000, NGMC has provided nearly three times the amount of indigent and charity care set forth in requirements by the Georgia Department of Community Health for successful passage of a certificate of need for new services, and, unlike many Georgia not-for-for profit hospitals held to the same requirements, NGMC does not receive tax funding from its local county to help fund indigent care to area residents**;**
- NGMC is the primary hospital for low-income patients in Gainesville-Hall County and throughout the region in counties such as Banks, Dawson, and White, where many key medical specialties are not available.

- NGMC receives no local tax revenue from Hall County (or any counties served in Region 2) to support operations or care provided to indigent residents, unlike a number of not-for-profit hospitals.

NGMC serves as a financial engine for the local economy. In 2014 (latest numbers available), the hospital surpassed the $1 billion mark in local and state economic impact for the fifth consecutive year, according to a report by the Georgia Hospital Association, which applied an economic multiplier to the hospital's direct expenditures to account for the "ripple" effect the hospital's spending has on other sectors of the local and state economies. The report found that through its economic impact, the hospital sustained nearly 8,000 full-time jobs throughout the region and the state in 2014 in addition to the more than 6,000 employed directly by Northeast Georgia Health System.

Under IRS law, a tax-exempt organization, classified as a 501(c)(3) charity, is required to: have a mission that will benefit its community; reinvest all surplus funds in the organization in a way that benefits the community; compensate executives, contractors and other employees in accordance to fair market value; remain accountable to the community; refrain from participating in political campaigns for or against candidates and/or lobby as a substantial part of its activities; and, remain financially accountable to the community by not allowing any portion of its net earnings to benefit any private shareholder or individual.
As a not-for-profit hospital, NGMC carries additional responsibilities, as established by the IRS in 1965:

- Operate a full-time emergency room that is available to all people, regardless of their ability to pay;
  - ✓ NGMC operates the 4th busiest ER in Georgia. In 2015, more than 20% of all NGMC's emergency room visits were made by self-pay patients.
- Provide non-emergency services to anyone able to pay;
  - ✓ Northeast Georgia Health System provides high quality, advanced specialty and primary healthcare services to the Northeast Georgia community, serving almost 700,000 people in more than 13 counties. In FY15, NGMC's payor mix was 59% Medicare/Medicaid, 34% commercial insurance and 7% self-pay
- Participate in Medicaid and Medicare;
  - ✓ 59% of patients served by NGMC in FY15 were Medicaid and Medicare patients.
- Create a governing board that is representative of the community it serves;
  - ✓ More than 80 community members are actively involved in governance through Northeast Georgia Health System, NGMC and other subsidiary boards and committees.
- Allow medical staff privileges to any professional who is qualified and applies; and,
  - ✓ NGMC has a medical staff of more than 600 physicians representing numerous advanced specialties such as gynecologic oncology, electrophysiology, cardiac surgery, critical care medicine, surgical trauma, neonatology and perinatology.
- Reinvest surplus funds in operations.
  - ✓ As not-for-profit organizations, the revenue generated by NGMC and its parent organization, Northeast Georgia Health System, above operating expenses is

reinvested into the community. Examples include construction of new medical facilities, such as the new hospital in Braselton offering 24/7 emergency room services not previously available to local residents; investments in advanced medical technology such as robotic surgical systems and state of the art radiation therapy equipment; and development of the only Level 2 Trauma Center in northeast Georgia.

Northeast Georgia Medical Center (NGMC) values cooperative efforts with community organizations and other healthcare providers to improve the health status of area citizens. NGMC demonstrates this through many partnerships ranging from serving as lead agency of the Safe Kids Coalition of Gainesville-Hall County, to partnering with other organizations such as Good News Clinics and the Public Health Department to reach at-risk populations in need of health care.

In FY15, over $6 million was provided in community benefit programs/outreach. Community education was provided through free community lectures, various support groups and the semi-annual health magazine, *Communicare*. NGMC also offered several community education seminars in 2015 on topics ranging from health and nutrition to women's health education and more.

What Drives NGMC's Community Health Improvement Activities?
NGMC, with input from the community, has completed Community Health Needs Assessments since 1999. Using input from the community through focus groups, interviews and the in depth study of health data, NGMC develops implementation plans to impact the overall health of the community.

Go to www.nghs.com to see a spreadsheet of initiatives and activities Northeast Georgia Medical Center is involved with which address those needs. Many activities overlap different priorities, and NGMC's involvement ranges from providing the activity itself to contributing in some way. The spreadsheet is not an exhaustive list, but highlights many of the organization's efforts to address identified community health needs. The full CHNA is also available on the website.

Community Health Needs Assessment Requirement

As a result of the Patient Protection and Affordable Care Act (PPACA), all tax-exempt organizations operating hospital facilities are required to assess the health needs of their community through a CHNA once every three years. A CHNA is a written document developed for a hospital facility that defines the community served by the organization, the process used to conduct the assessment, and identifies the salient health needs of the community.

The written CHNA report must include descriptions of the following:

- The community served and how the community was determined
- The process and methods used to conduct the assessment, including a description of the data, data sources, and other information used in the assessment, as well as the methods utilized to collect and analyze the data and information
- Any organizations with whom the hospital has worked on the assessment
- How the organization took into account input from persons representing the broad interests of the community served by the hospital, including a description of when and how the hospital consulted with these persons or the organizations they represent
- The prioritized significant community health needs identified through the CHNA as well as a description of the process and criteria used in the identification and prioritization process
- The existing resources within the community available to potentially meet the significant community health needs
- An evaluation of the impact of any actions that were taken since the hospital's most recent CHNA to address the significant health needs identified in that last CHNA

PPACA also requires hospitals to adopt an implementation strategy to address prioritized community health needs identified through the assessment. An implementation strategy is a written plan that addresses each of the significant community health needs identified through the CHNA and is a separate but related document to the CHNA report. The written implementation strategy must include the following:

- List of the prioritized needs the hospital plans to address, and the rationale for not addressing the significant health needs not selected
- Description of the planned actions and intended impact for the chosen health needs
- Identify resources the hospital plans to commit to address the health needs
- Describe any planned collaboration between the hospital and other facilities or organizations in addressing the health needs

A CHNA is considered conducted in the taxable year that the written report of its findings as described above, is approved by the hospital's governing body, and made widely available to the public. The implementation strategy is considered adopted on the date it

is adopted by the governing body. Organizations must adopt their implementation strategy by the 15th day of the 5th month following the end of the tax year. CHNA compliance is reported on IRS Form 990, Schedule H.

NGMC partnered with Truven Health Analytics, an IBM Company (Truven Health) to complete a CHNA for the communities served by NGMC. In addition, NGMC engaged a third party to field a survey designed to capture the health needs of low-income, Latino, and uninsured residents in the community.

Truven Health and its legacy companies have been delivering analytic tools, benchmarks, and strategic consulting services to the healthcare industry for over 50 years. Truven Health combines rich data analytics in demographics, planning, and disease prevalence estimates with experienced strategic consultants to deliver comprehensive and actionable CHNAs.

Defining the Community Served

Whereas previous assessments focused mainly on Hall County, the 2016 project expanded to include other counties in the NGMC service area. For the purpose of this assessment, the geographic boundaries encompass the counties where 90% of NGMC hospital admissions originate. These counties were grouped into four communities based on consideration for patient volume, location, and the broad interests of the community, including medically underserved populations, low-income persons, minority groups, or those with chronic disease needs. Forsyth County was excluded from analysis because NGMC serves a relatively small proportion of the population as compared to other counties served.

Northeast Georgia Medical Center Inpatient Discharges (Gainesville and Braselton facilities)

County	2015	% of Total	% Included in Communities Served
Hall	15,410	45.0%	45.0%
Habersham	2,239	6.5%	51.6%
White	2,271	6.6%	58.2%
Jackson	2,189	6.4%	64.6%
Lumpkin	1,689	4.9%	69.5%
Gwinnett	1,732	5.1%	74.6%
Banks	1,004	2.9%	77.5%
Stephens	956	2.8%	80.3%
Forsyth	884	2.6%	-
Rabun	829	2.4%	82.7%
Dawson	757	2.2%	84.9%
Barrow	958	2.8%	87.7%
Union	581	1.7%	89.4%
Towns	392	1.1%	90.6%
Sub-total	**31,891**	**93.2%**	**n/a**
All Others	2,337	6.8%	n/a
Grand Total	**34,228**	**100.0%**	**90.6%**

Source: Georgia Hospital Association, 2016

Northeast Georgia Medical Center Community Health Needs Assessment Community Served Definition

For the 2016 assessment, Northeast Georgia Medical Center defined four communities: Primary Service Area (PSA), Greater Braselton Service Area (GBSA), Secondary Service Area 400 (SSA 400) and Secondary Service Area North (SSA North). Collectively, the four communities are comprised of sixty-one total (61) ZIP codes that make up twelve (12) counties plus the northeastern portion of Gwinnett County. The counties and ZIP codes that define each of the defined communities can be found in ***Appendix A***.

Northeast Georgia Medical Center Community Health Needs Assessment
Map of Communities Served

Source: Northeast Georgia Medical Center / Truven Health Analytics, 2016

In 2016, the total population of the four communities is estimated to be 729,016. The population is distributed among the communities as follows:

Community	PSA	GBSA	SSA 400	SSA North
% of Population	21%	50%	7%	21%

Assessment of Health Needs – Methodology and Data Sources

To assess the health needs of the community served, a quantitative and qualitative approach was taken. In addition to collecting data from public and Truven Health proprietary sources, interviews and focus group were conducted by Truven Health with individuals representing public health, community leaders and groups, public organizations, and other providers. The Johnson Group fielded in-person surveys of low-income, Latino and uninsured residents.

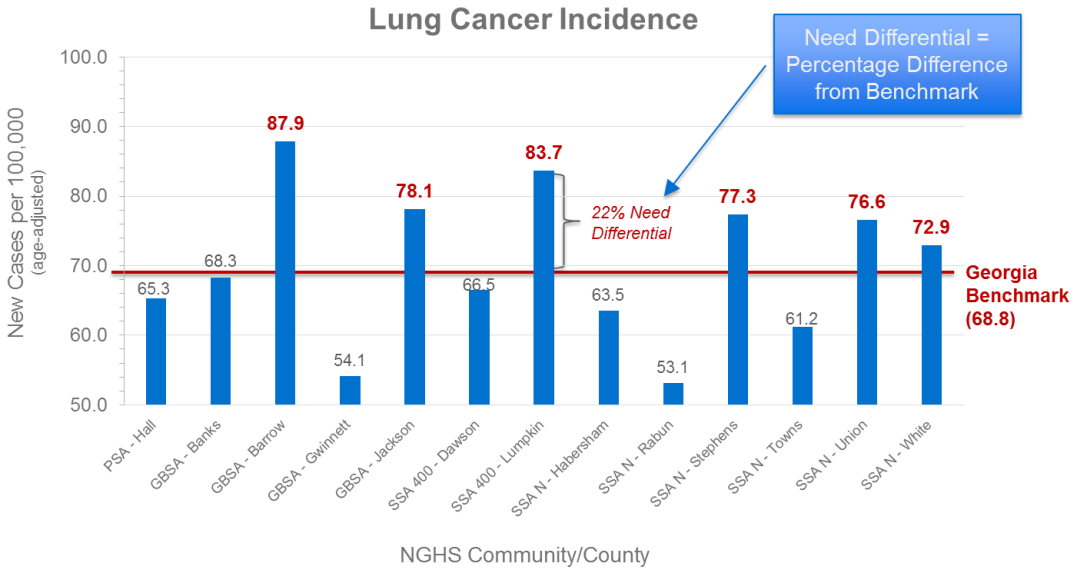
Quantitative Assessment of Health Needs

Quantitative data in the form of public health indicators were collected and analyzed to assess community health needs. Eight categories consisting of 125 indicators were collected and evaluated for the counties where data was available. In some cases, more than one measure was collected for an indicator. The categories of indicators collected are included in the table below. A list of the indicators and sources utilized in the quantitative assessment can be found in ***Appendix B***.

Population 20 Indicators	**Mental Health** 4 Indicators	**Health Behaviors** 15 Indicators	**Environment** 7 Indicators
Injury & Death 21 Indicators	**Health Outcomes** 37 Indicators	**Prevention** 7 Indicators	**Access to Care** 14 Indicators

To determine the public health indicators which demonstrate a community health need, a benchmark analysis was conducted. Benchmarks collected included (where available) national, state, and goal setting benchmarks such as Healthy People 2020 and County Health Rankings Best Performer.

Health Indicator Benchmark Analysis
Example



Source: Truven Health Analytics, 2016

According the America's Health Rankings, Georgia ranks 40th out of the 50 states.[1] The health status of Georgia compared to other states in the nation identifies many opportunities to impact health within local communities, even for those communities that rank highly within the state; therefore, the benchmark for the community served was set to the state value. Needs were identified when one or more of the indicators for the community served did not meet state benchmarks. An index of magnitude analysis was then conducted on those indicators that did not meet state benchmarks in order to understand to what degree they differ from the benchmark to show the relative severity of need. The outcomes of the quantitative data analysis were then compared to the qualitative findings.

Qualitative Assessment of Health Needs (Community Input)

In addition to analyzing quantitative data, four focus groups (one for each NGMC community) collectively comprised of forty-six (46) participants and twenty-eight (28) key informant interviews were conducted March and April 2016. These were conducted to collect information from persons representing the broad interests of the community served, and to solicit feedback from leaders and representatives who serve the community and have insight into its needs.

Focus groups are designed to familiarize participants with the CHNA process and gain an understanding of the population's health needs from the community's perspective. Focus groups are formatted for both individual and small group feedback; moreover, this forum also assists with the identification of other community organizations currently addressing health needs in the community.

The interviews are intended to assist with gaining understanding and achieving insight into individual perceptions of the overall health status of the community and the primary drivers contributing to the identified health issues.

Participation for the focus groups and interviews was solicited from state, local, or regional governmental public health departments (or equivalent departments or agencies) with knowledge, information, or expertise relevant to the health needs of the community. Also included were community leaders, public health experts, and those representing the needs of minority, underserved, and indigent populations in the community. Community leaders, local groups, public health organizations, healthcare organizations, and other healthcare providers also participated to represent the broad interest of the communities.

To further ensure that the needs of vulnerable populations were captured, a bilingual interview team fielded a short health questionnaire of residents at the Hall County Health Department, the Good News Clinic, and at public housing operated by the Gainesville Housing Authority. These locations were chosen to ensure participants represented lower income, Latino and uninsured residents. Two hundred and eleven (211) surveys were completed in March 2016.

In addition to requesting input from public health and various interests of the community, hospitals are also required to take into consideration written input received on their most recently conducted CHNA and subsequent implementation strategies. NGMC has made the full report available and welcomes public comment or feedback on the findings. Public

[1] America's Health Rankings Annual Report, 2015

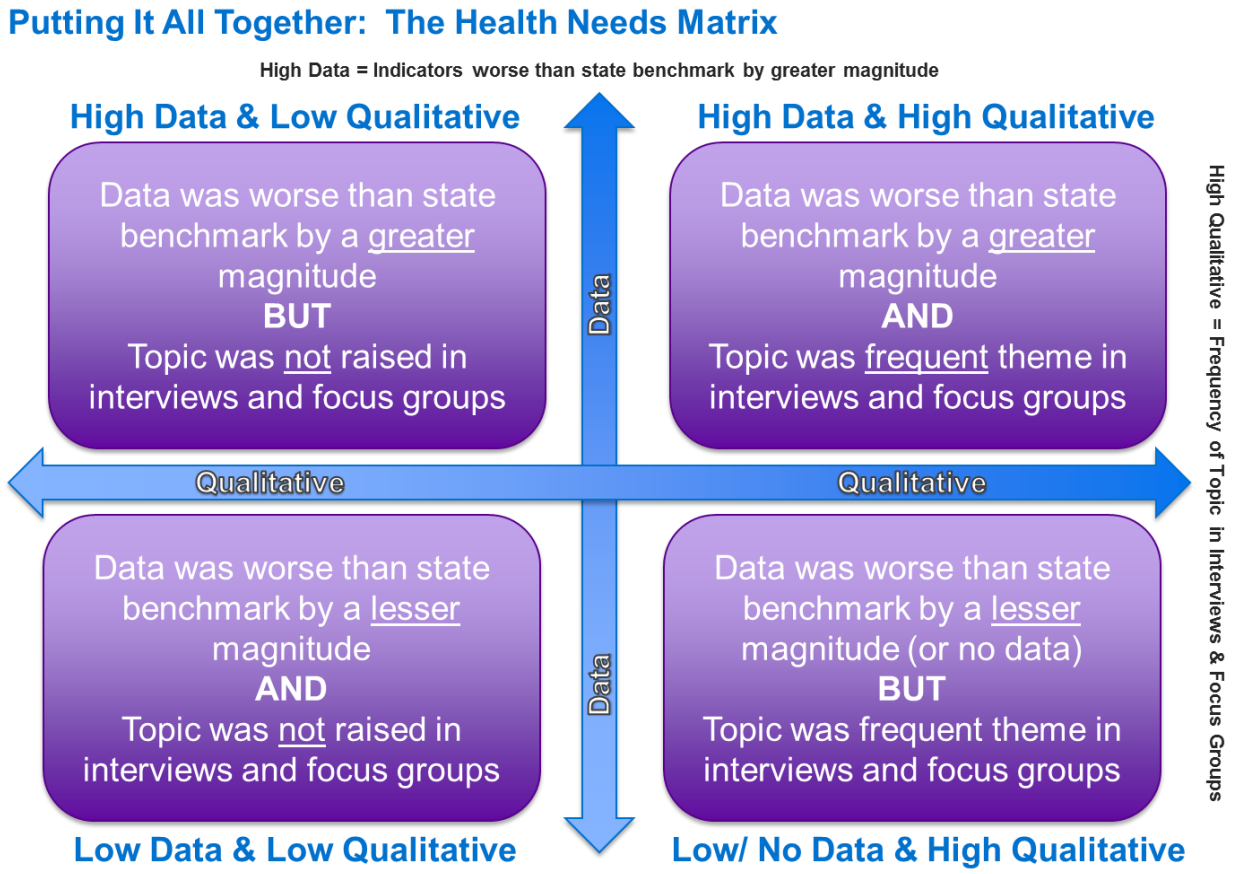
comments and questions were directed to NGMC's Community Health Improvement department at 770-219-8097. To date we have not received such written input but continue to welcome feedback from the community.

The information collected from the interviewees and focus group participants were organized into primary themes surrounding community needs. The identified needs were then compared to the quantitative data findings.

Methodology for Defining Community Need

The Health Needs Matrix below consolidates information from interviews, focus groups, survey feedback, health indicator data, and the primary issues currently impacting the health of the community. This matrix is created to assist with identification of the significant health needs for the community served.

The upper right quadrant of the matrix is where the qualitative data (interview and focus group feedback) and quantitative data (health indicators) converge.



Source: Truven Health Analytics, 2016

Information Gaps

The majority of public health indicators are available at the county level and do not exceed this level of granularity; moreover, in the state of Georgia, health indicators are not available for every county due to variation in population density. In evaluating data for entire counties versus more localized data, it is difficult to understand the health needs for specific populations within a county. It can also be a challenge to tailor programs to address specific community health needs as placement and access to such programs may not actually impact the individuals in need of the service. Truven Health supplemented the health indicator data with Truven Health's ZIP code estimates to assist in identifying specific populations within a community where health needs may be greater.

Existing Resources to Address Health Needs

Part of the assessment process included gathering input on community resources potentially available to address the significant health needs identified through the CHNA. A list of these resources is provided in ***Appendix C***.

Prioritizing Community Health Needs

The prioritization of community health needs identified through the assessment was based on the weight of the quantitative and qualitative data obtained when assessing the community. It also included an evaluation of the severity of each need as it pertains to the state benchmark, value the community places on the need, and the prevalence of the need within the community. A thorough description of the process can be found in the "Prioritizing Community Health Needs" section of the assessment.

Evaluation of Implementation Strategy Impact

As part of the current assessment, NGMC conducted an evaluation of the implementation strategies adopted as part of the 2013 CHNA. In 2013, NGMC chose to address the following identified needs:

- Access to Care - Providers and Prevention
- Obesity and Diabetes
- Mental Health
- Senior Health
- Hispanic Needs
- Access to Care - Transportation
- Cancer
- Adolescent Lifestyle
- Teen Pregnancy
- Heart Disease and Stroke

An implementation strategy was put into place in 2013 to address the above needs. That strategy has been evaluated as to its effectiveness and impact. Details for that evaluation can be found in ***Appendix D*** with the report of interventions and activities outlined in the implementation strategy drafted after the 2013 assessment.

Demographic and Socioeconomic Summary

Population growth is expected for the overall community served with variation by geography, age group, and race. The population of Georgia is projected to increase 5% over the next five years. The GBSA community will exceed that growth at 9%, the PSA and SSA 400 communities have a comparable 5% rate, and the SSA North community growth is slower at 3%. Growth projections by age group are similar to the state of Georgia with a few exceptions. The SSA 400 and SSA North communities will see higher growth in the population over age 65 and lower growth in the segment under age 18. This overall increase in older adults will drive increased demand for healthcare services.

Growth estimates in the Hispanic and non-white population are very different across the communities. Racial diversity in the PSA is expected to grow, the five year growth rate in the Hispanic and non-white population is 41%, on par with the state of Georgia growth rate but not as much as the national rate. In contrast, the growth rate in the Hispanic & non-white population among the other three communities is well below the state of Georgia estimate. The health care delivery system needs to adapt to increasing diversity of the community's population.

Demographic and Socioeconomic Comparison: Community Served and Benchmarks

Demographic / Socioeconomic Variable		Benchmarks		Community Served			
		United States	Georgia	PSA	GBSA	SSA 400	SSA North
Total Current Population		319,459,991	10,241,260	152,414	366,234	53,723	156,655
5 Year Projected Population Change		4%	5%	6%	9%	5%	3%
Population 0-17		23%	26%	27%	27%	21%	20%
Population 65+		15%	13%	14%	12%	16%	23%
Hispanic & Non-White Population		47%	41%	41%	31%	9%	14%
Insurance Coverage	Medicaid	19%	12%	16%	11%	8%	12%
	Uninsured	8%	16%	14%	9%	15%	16%
Median HH Income		$56,682	$50,067	$46,708	$63,030	$77,832	$39,939
Children in Poverty		18%	21%	23%	16%	16%	24%
Limited English		9%	6%	13%	13%	2%	3%
No High School Diploma		13%	14%	22%	14%	14%	17%
Un-employment		7%	8%	9%	10%	10%	10%

Source: Truven Health Analytics, 2016

Note: poverty, language, education, and employment statistics are based on subsets of total population

In regards to socioeconomic barriers, the four communities vary considerably. The GBSA and SSA 400 communities tend to be more affluent, with higher median household income, lower rates of Medicaid coverage, and less uninsured than the state of Georgia. In contrast, the PSA community and SSA North have lower household income, and similar rates of Medicaid coverage and uninsured as compared to Georgia. The PSA and SSA North have a higher percentage of children in poverty than the state and have a larger percent of the population without a high school diploma. Also worth noting, PSA and GBSA communities have a substantially higher percent with limited English speaking than the state of Georgia and the other three communities.

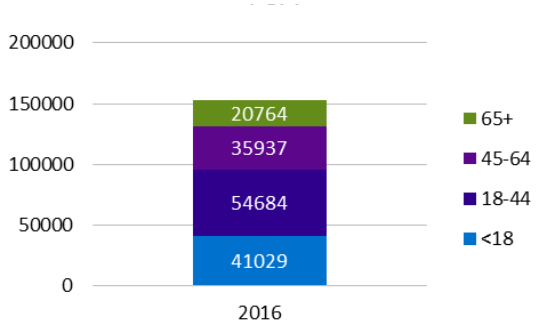
Demographic and Socioeconomic Characteristics by Community

Primary Service Area (PSA)

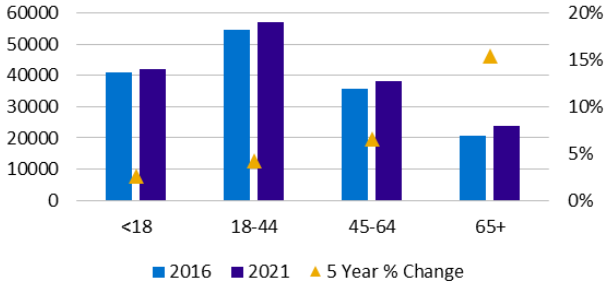
The PSA commmunity tends to be relatively young, with 41,000 under age 18, and over 54,000 between ages 18-44. However the population is aging, with the highest growth rate projected to be in the population over age 65, followed by growth in the 45-64 age group. This age shift is expected to drive increased incidence of chronic disease and need for corresponding healthcare services.

Population by Age Cohort

2016 Total Population



5 Year Projected Population Growth Rate

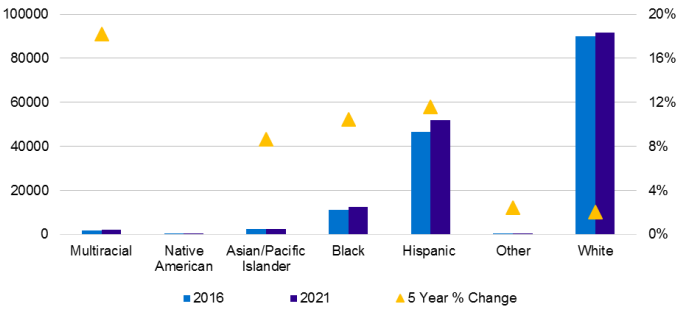


Source: Truven Health Analytics, 2016

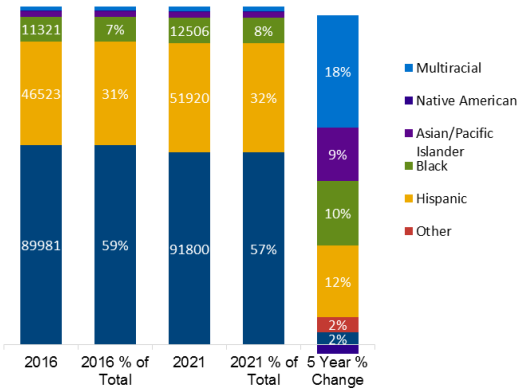
The PSA community is primarily white and Hispanic today, but diversity in the community will increase slightly due to the projected growth of minority populations over the next five years. The community will experience the largest rate of growth in the multi-racial community, followed by the Hispanic, Black, and Asian/Pacific Islander communities respectively. The graphs below display the community's total population breakdown by race and Hispanic ethnicity.

Population by Race

2016 Total Population



5 Year Projected Population Growth Rate

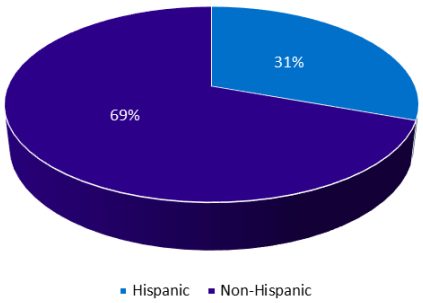


Source: Truven Health Analytics, 2016

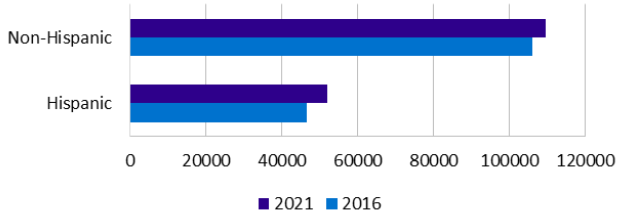
The Hispanic population currently comprises 31% of the population and is expected to grow by 10% over the next five years. The graphs below display the community's population breakdown by ethnicity (including all races).

Population by Hispanic Ethnicity

2016 Total Population



5 Year Projected Population Growth Rate

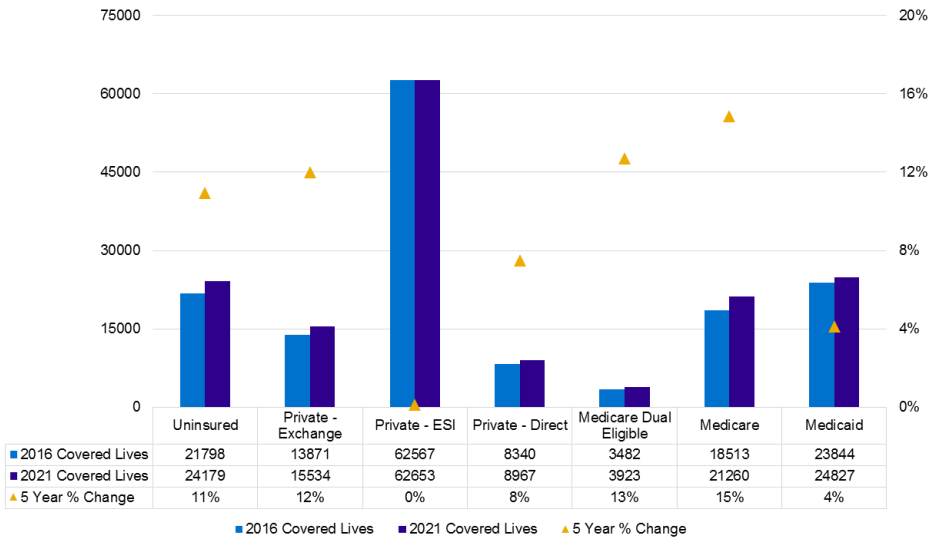


Source: Truven Health Analytics, 2016

Source: Truven Health Analytics, 2016

The median household income for the community served is $46,708, which is below the state average. The largest insurance coverage segment in the community is commercially insured. The commercially insured population includes those purchasing direct coverage through the health insurance exchange marketplace and those receiving insurance through an employer. Employer sponsored coverage growth is expected to be flat, with increases in both direct and exchange coverage over the next five years. Medicare populations are expected to grow the fastest, fueled by growth in the over 65 population. Nearly 24,000 people are covered under Medicaid. The uninsured population is almost 22,000 lives and is projected to grow by 11% over five years.

Estimated Covered Lives and Projected Growth by Insurance Category



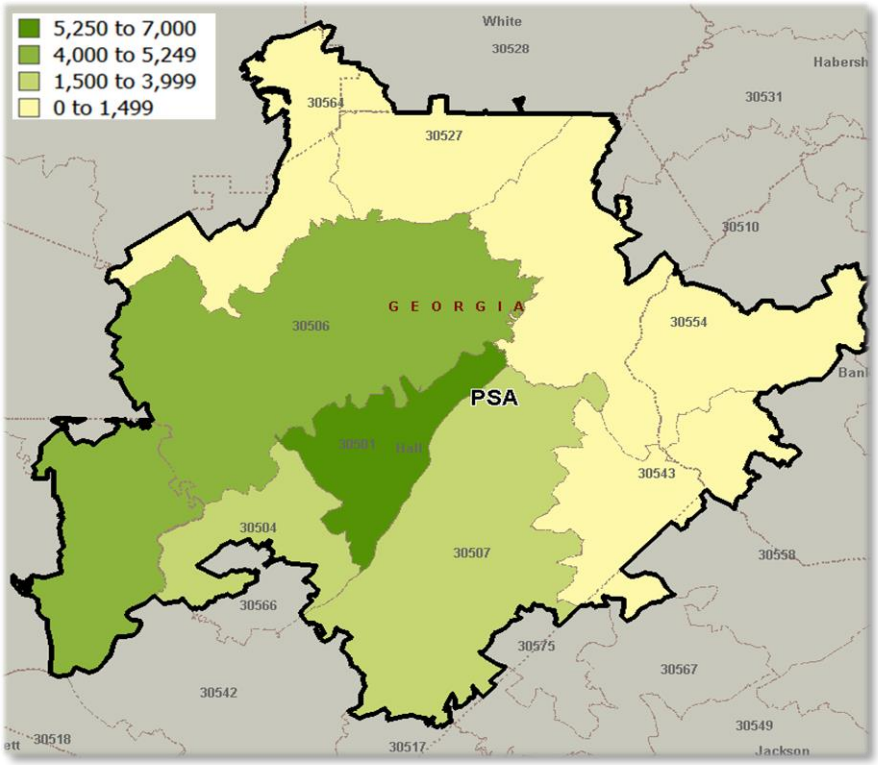
	Uninsured	Private - Exchange	Private - ESI	Private - Direct	Medicare Dual Eligible	Medicare	Medicaid
2016 Covered Lives	21798	13871	62567	8340	3482	18513	23844
2021 Covered Lives	24179	15534	62653	8967	3923	21260	24827
5 Year % Change	11%	12%	0%	8%	13%	15%	4%

Source: Truven Health Analytics, 2016

These ZIP codes have the largest number of uninsured individuals in the PSA:

- 30501
- 30506
- 30504
- 30507

PSA: 2016 Estimated Uninsured Lives by ZIP Code

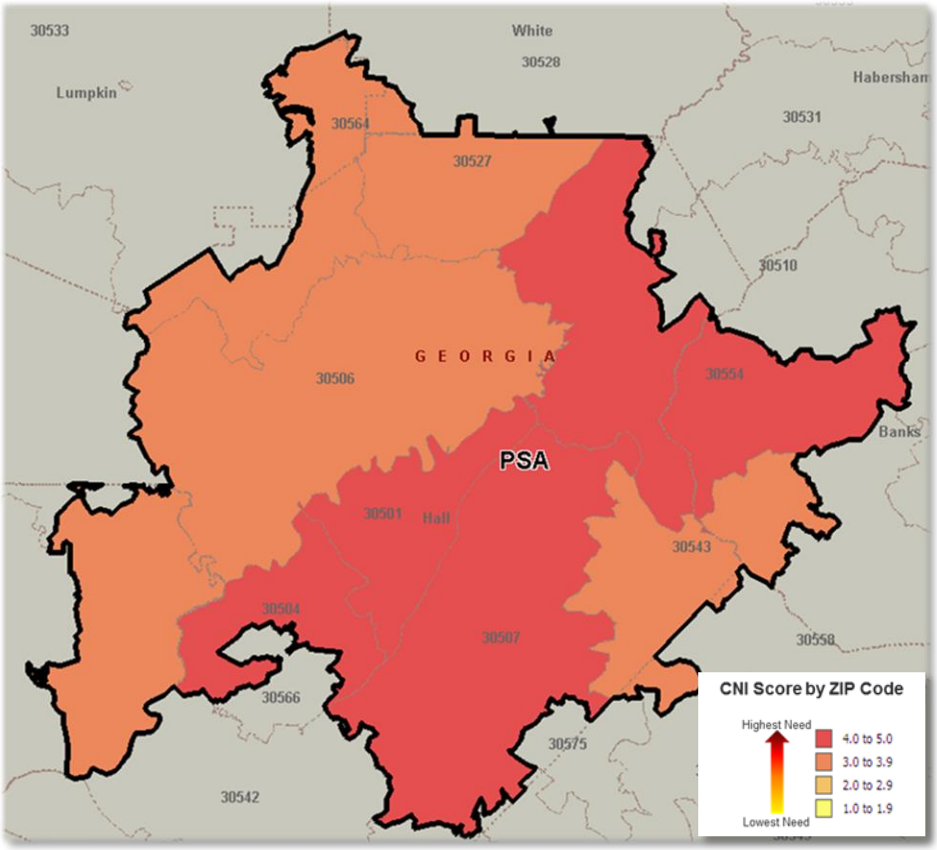


Source: Truven Health Analytics, 2016

The Truven Health Community Need Index (CNI) is a statistical approach to identifying health needs in a community. The CNI takes into account vital socio-economic factors (income, cultural, education, insurance and housing) about a community to generate a CNI score for every populated ZIP code in the United States. The CNI is strongly linked to variations in community healthcare needs and is a strong indicator of a community's demand for various healthcare services. The CNI score by ZIP code identifies specific areas within a community where healthcare needs may be greater.

The CNI is measured on a scale of one to five with five indicating the greatest need. Overall, the PSA community has a higher CNI (4.1) than the nation. The portions of the community where greater healthcare needs are anticipated include the red shaded ZIP codes (30501, 30504, 30507, and 30554) in Hall County. The PSA community has an overall CNI Score of 4.1.

2015 Community Need Index by ZIP Code



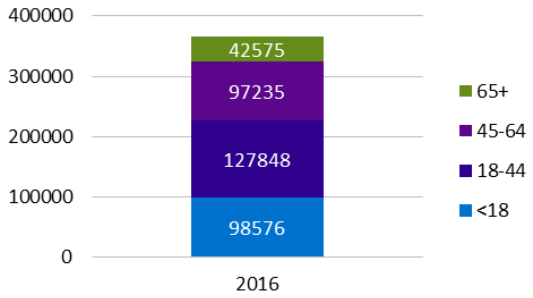
Source: Truven Health Analytics, 2016

Greater Braselton Service Area (GBSA)

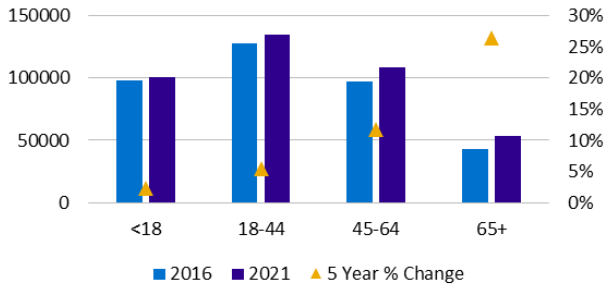
The GBSA commmunity tends to be relatively young with over 98,000 under age 18, and almost 128,000 individuals between ages 18-44. However, the population is aging, with a 25% projected five year growth in the population over age 65, followed by 11% growth in the 45-64 age group. This age shift is expected to drive increased incidence of chronic disease and need for corresponding healthcare services.

Population by Age Cohort

2016 Total Population



5 Year Projected Population Growth Rate

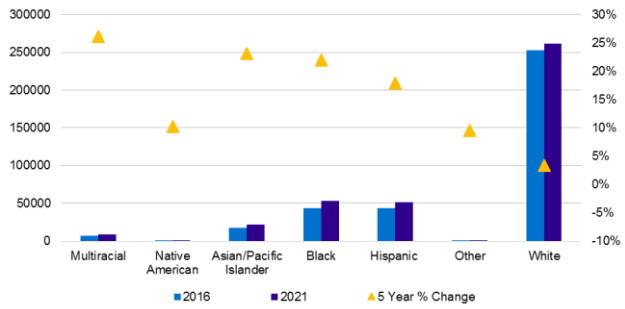


Source: Truven Health Analytics, 2016

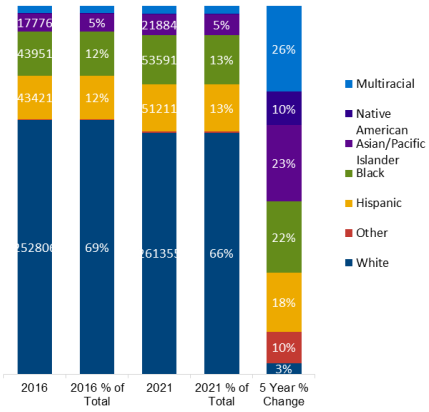
GBSA community is primarily white, and expects a 10% increase in all minority groups over the next five years. The community will experience the largest growth rates in the multi-racial, Hispanic, Black, and Asian/Pacific Islander communities. The net result of this shift is the white population will decline from 69% to 66% of the total population. Conversely, minority groups will grow from 31% to 34% of the population, creating greater need for the health care system to respond to increasingly diverse groups. The graphs below display the total population breakdown by race and Hispanic ethnicity.

Population by Race

2016 Total Population



5 Year Projected Population Growth Rate

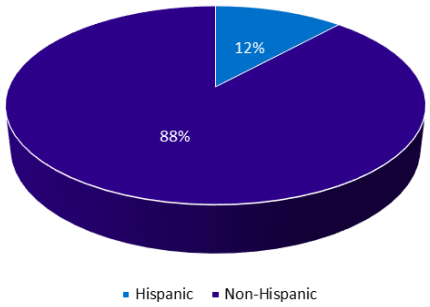


Source: Truven Health Analytics, 2016

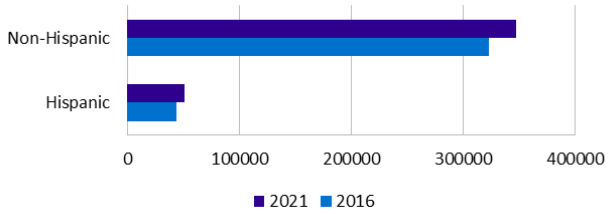
The Hispanic population currently comprises only 12% of the population and is expected to grow by 18% over the next five years. The graphs below display the community's population breakdown by ethnicity (including all races).

Population by Hispanic Ethnicity

2016 Total Population



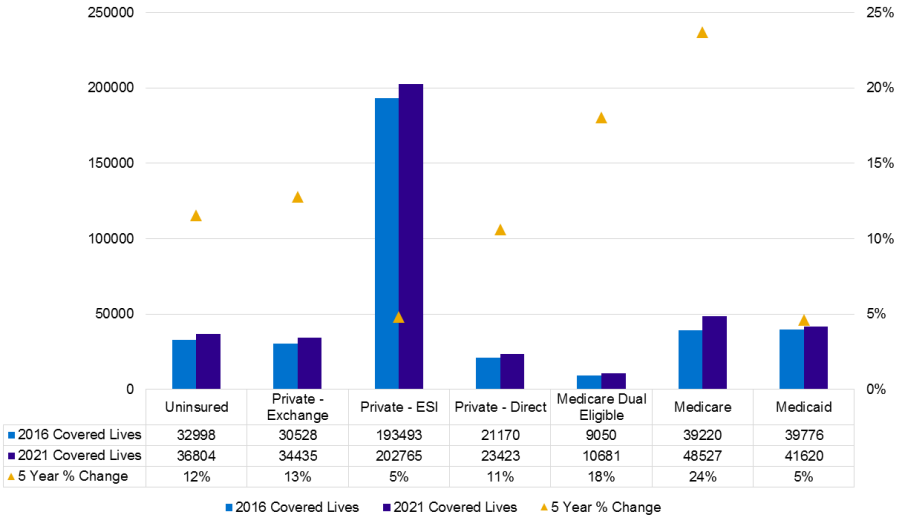
5 Year Projected Population Growth Rate



Source: Truven Health Analytics, 2016

The GBSA median household income is $63,030, 26% above the state average. The largest insurance segment in the GBSA community is commercially insured. The commercially insured population includes those purchasing direct coverage, through the health insurance exchange marketplace and those receiving insurance through an employer. The population with employer sponsored coverage is expected to grow modestly, with larger percent increases in both direct and exchange coverage over the next five years. The coverage expected to experience the greatest increase over the next five years is Medicare, fueled by growth in the over 65 population. Nearly 40,000 people are covered under Medicaid. Despite the growth in insurance exchanges, the uninsured population is almost 33,000 lives and is expected to grow by 11% over five years.

Estimated Covered Lives and Projected Growth by Insurance Category

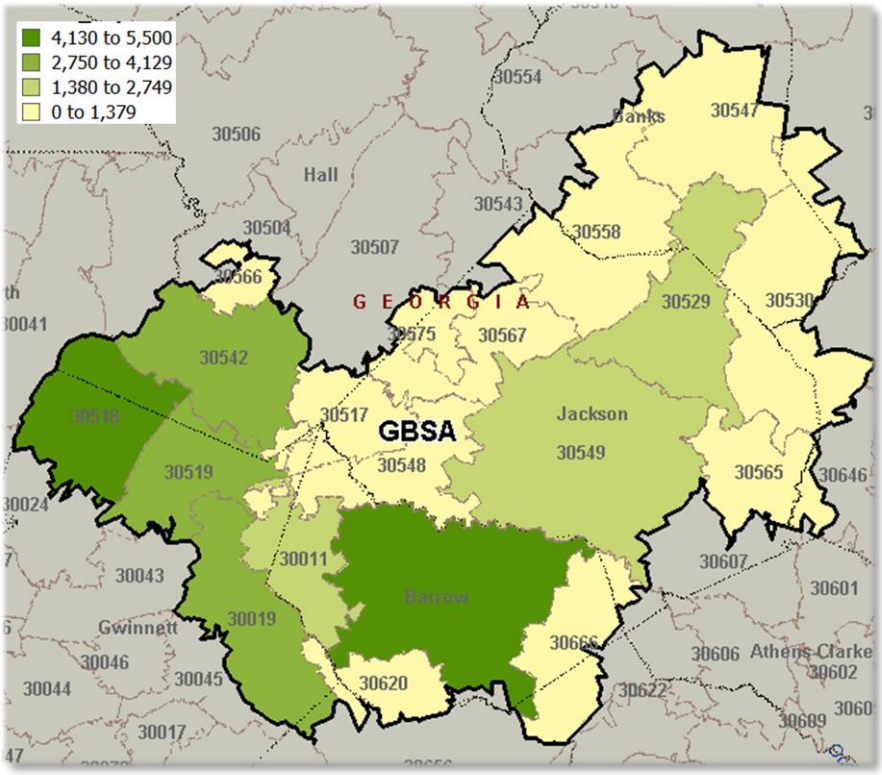


	Uninsured	Private - Exchange	Private - ESI	Private - Direct	Medicare Dual Eligible	Medicare	Medicaid
2016 Covered Lives	32998	30528	193493	21170	9050	39220	39776
2021 Covered Lives	36804	34435	202765	23423	10681	48527	41620
5 Year % Change	12%	13%	5%	11%	18%	24%	5%

Source: Truven Health Analytics, 2016

- ZIP code 30518 contains about 5,100 uninsured, the largest uninsured ZIP code in the community.
- ZIP codes 30547, 30567 and 30575 have the smallest percent of uninsured residents at 1% each. They are located in the counties of Banks and Jackson.

GBSA: 2015 Estimated Uninsured Lives by ZIP Code

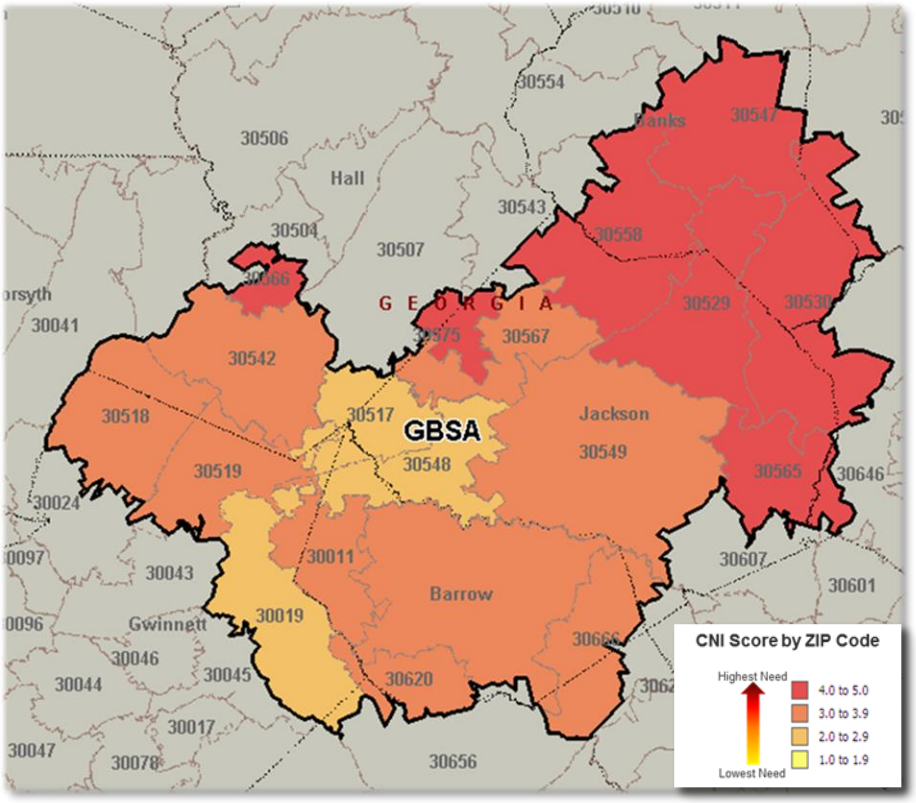


Source: Truven Health Analytics, 2016

The Truven Health Community Need Index (CNI) is a statistical approach to identifying health needs in a community. The CNI takes into account vital socio-economic factors (income, cultural, education, insurance and housing) about a community to generate a CNI score for every populated ZIP code in the United States. The CNI is strongly linked to variations in community healthcare needs and is a strong indicator of a community's demand for various healthcare services. The CNI score by ZIP code identifies specific areas within a community where healthcare needs may be greater.

The CNI is measured on a scale of one to five with five indicating the greatest need. Overall, the GBSA community has a higher CNI than the nation. The portions of the community where greater healthcare needs are anticipated include the red shaded ZIP codes mainly in the northeast region of the community. The GBSA community has an overall CNI Score of 3.3.

2015 Community Need Index by ZIP Code



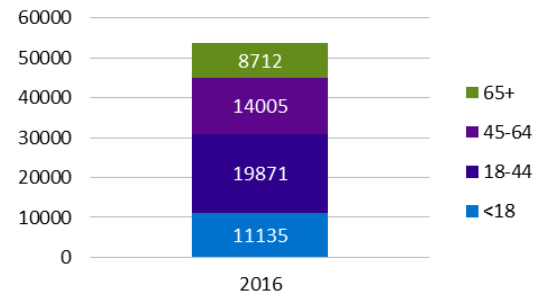
Source: Truven Health Analytics, 2016

Secondary Service Area 400 (SSA 400)

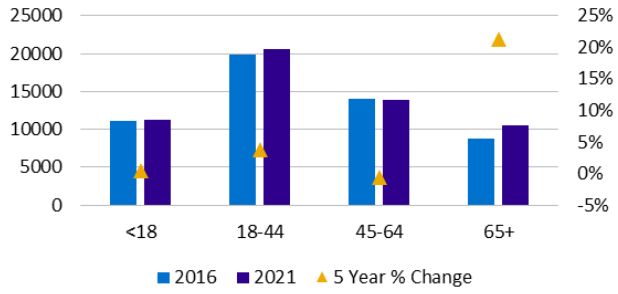
The SSA 400 commmunity's largest age group is the 18-44 segment. The highest growth rate is projected to be in the population over age 65, and the population ages 45-64 are expected to decline over five years. The growth of the over 64 population is expected to drive increased incidence of chronic disease and need for corresponding healthcare services.

Population by Age Cohort

2016 Total Population



5 Year Projected Population Growth Rate

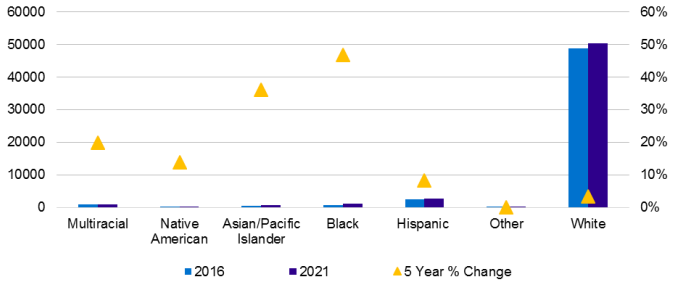


Source: Truven Health Analytics, 2016

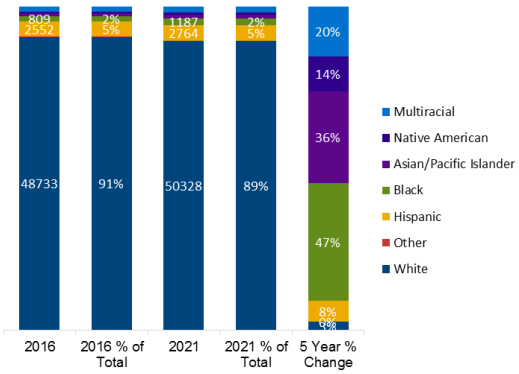
By race, SSA 400 community is primarily white today with very small minority populations. Diversity in the community will increase slightly due to the projected growth of multi-racial, Asian/Pacific Islander, and Black populations over the next five years. Conversely the white population is expected to grow very little. The graphs below display the community's total population breakdown by race and Hispanic ethnicity.

Population by Race

2016 Total Population



5 Year Projected Population Growth Rate

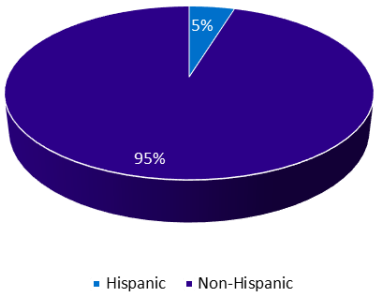


Source: Truven Health Analytics, 2016

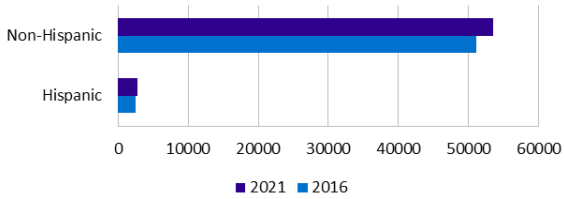
The Hispanic population currently comprises only 5% of the population and is expected to remain flat at 5% of the population over the next five years. The graphs below display the community's population breakdown by ethnicity (including all races).

Population by Hispanic Ethnicity

2016 Total Population



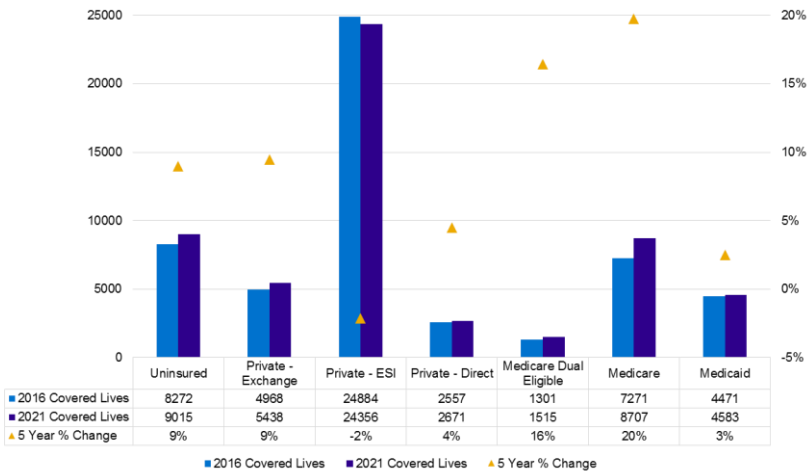
5 Year Projected Population Growth Rate



Source: Truven Health Analytics, 2016

The median household income for the SSA 400 community is $77,832, which is 55% above the state income average. Approximately 32,000 people in the community are commercially insured. The commercially insured population includes those purchasing direct coverage, through the health insurance exchange marketplace and those receiving insurance through an employer. Employer sponsored coverage is the largest segment, but is expected to decline. All other insured categories are expected to grow over the next five years. The coverage expected to experience the greatest increase over the next five years is Medicare, fueled by growth in the over 65 population. Over 4,000 people are covered under Medicaid. The uninsured population is over 8,000 lives and expected to grow 9% over five years.

Estimated Covered Lives and Projected Growth by Insurance Category

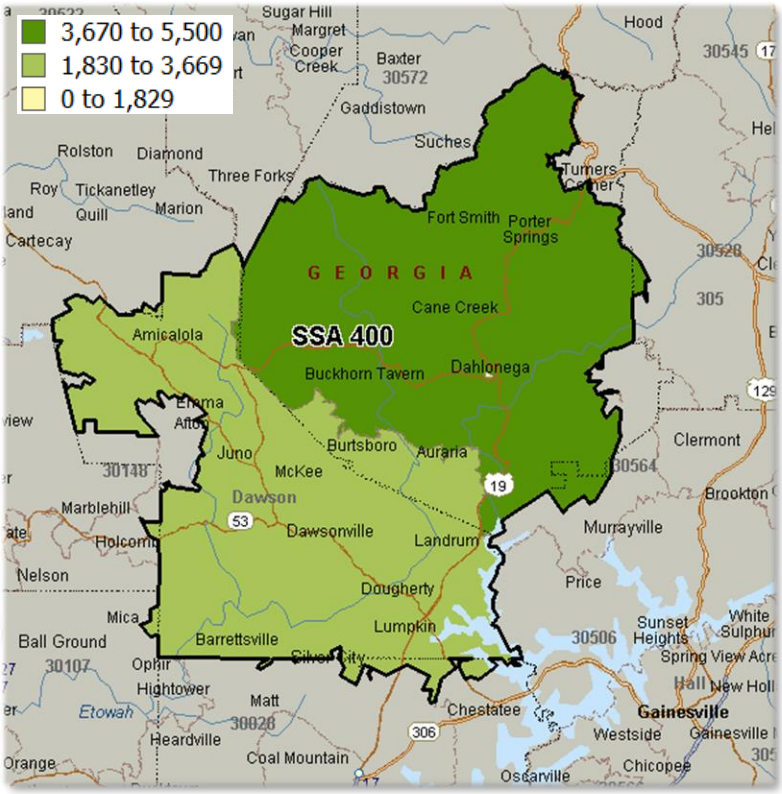


	Uninsured	Private - Exchange	Private - ESI	Private - Direct	Medicare Dual Eligible	Medicare	Medicaid
2016 Covered Lives	8272	4968	24884	2557	1301	7271	4471
2021 Covered Lives	9015	5438	24356	2671	1515	8707	4583
5 Year % Change	9%	9%	-2%	4%	16%	20%	3%

Source: Truven Health Analytics, 2016

The northeastern region of SSA 400, the majority of which is in Lumpkin County, contains the majority of uninsured lives.

SSA 400: 2015 Estimated Uninsured Lives by ZIP Code



Source: Truven Health Analytics, 2016

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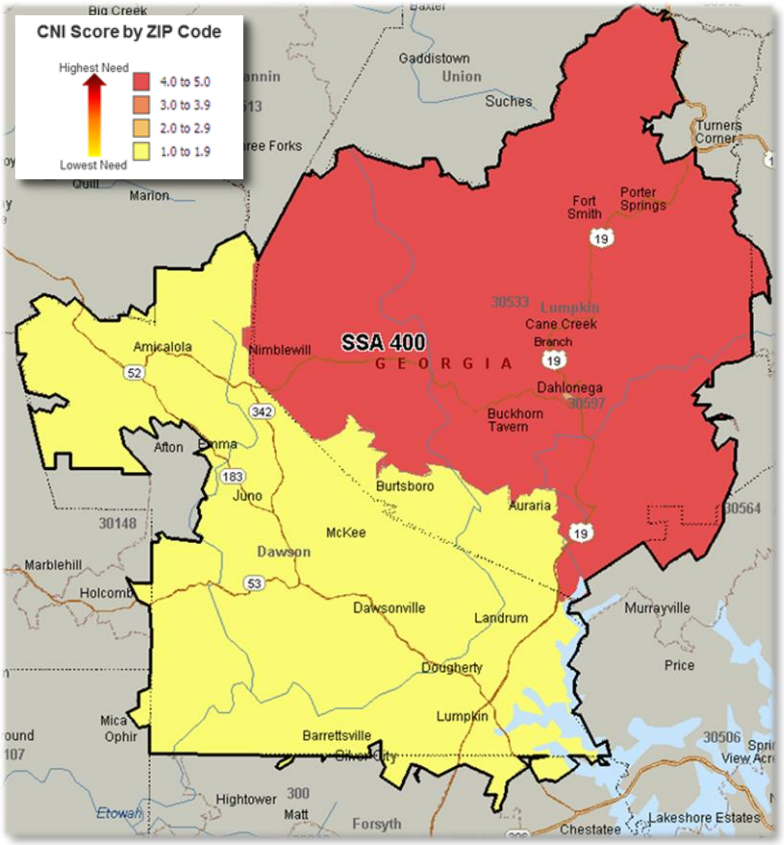
The CNI is measured on a scale of one to five with five indicating the greatest need. Overall, the SSA 400 community has a higher CNI than the nation. The portions of the community where greater healthcare needs are anticipated include the red shaded ZIP codes which is predominantly Lumpkin County. The SSA 400 community has an overall CNI Score of 4.1.

2015 Community Need Index by ZIP Code



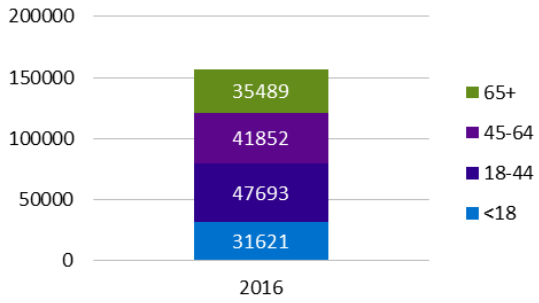
Source: Truven Health Analytics, 2016

Secondary Service Area North (SSA North)

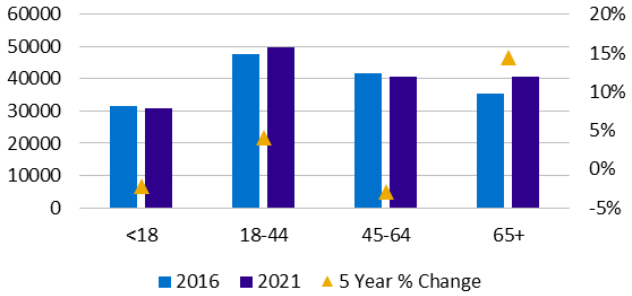
The SSA North commmunity has a large senior population, and high growth rates are projected for seniors for the next five years. There are 31,621 people under age 18, but this group is expected to decline. There are over 47,000 between ages 18-44, and this age group is expected to increase and remain the largest cohort . This shift to more seniors in the community will drive increased incidences of chronic disease and the need for corresponding healthcare services.

Population by Age Cohort

2016 Total Population



5 Year Projected Population Growth Rate

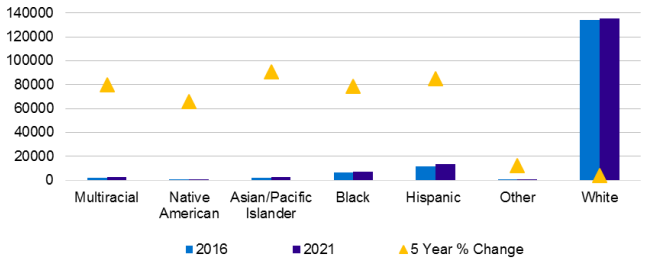


Source: Truven Health Analytics, 2016

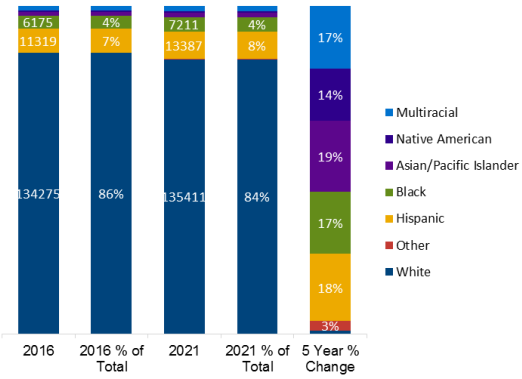
The SSA North community is 86% white today, but this segment of this racial group is not expected to grow. In contrast, all minority racial categories are expected to experience double digit growth over five years. As a result, diversity in the community will increase with non-Whites increasing from 14% to 16% of the population. The community will experience the largest growth in numbers among the Hispanics. The graphs below display the community's total population breakdown by race and Hispanic ethnicity.

Population by Race

2016 Total Population



5 Year Projected Population Growth Rate

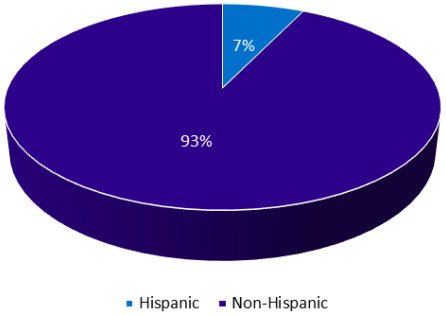


Source: Truven Health Analytics, 2016

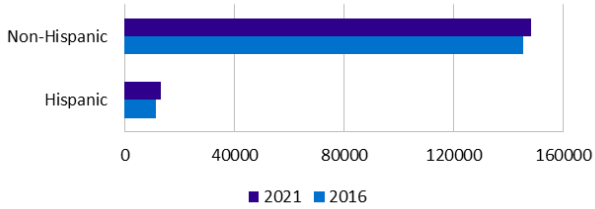
The Hispanic population currently comprises 7% of the population and is expected to grow by 18% over the next five years. The population will add almost as many Hispanics as all other groups combined over the next five years. The graphs below display the community's population breakdown by ethnicity (including all races).

Population by Hispanic Ethnicity

2016 Total Population



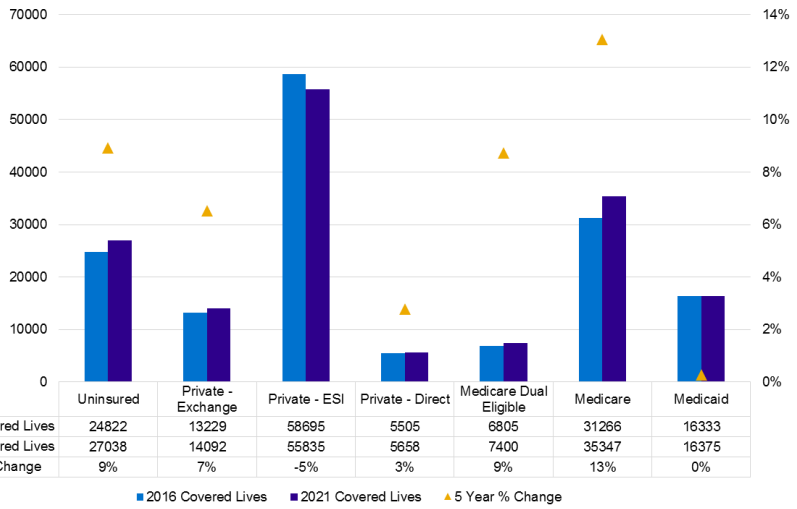
5 Year Projected Population Growth Rate



Source: Truven Health Analytics, 2016

The median household income for the community served is $39,939, which is 20% below the state of Georgia. The largest insured group is covered under employer sponsored commercial insurance with over 58,000 lives. The entire commercially insured population includes those purchasing direct coverage, through the health insurance exchange marketplace and those receiving insurance through an employer. All coverage groups are expected to grow except employer sponsored coverage, which is projected to decline five percent over the next five years. The population covered under Medicare is expected to grow the most, fueled by growth in the over 65 population. Over 16,000 people are covered under Medicaid. The uninsured population is almost 25,000 lives and is expected to grow by 9% over five years.

Estimated Covered Lives and Projected Growth by Insurance Category



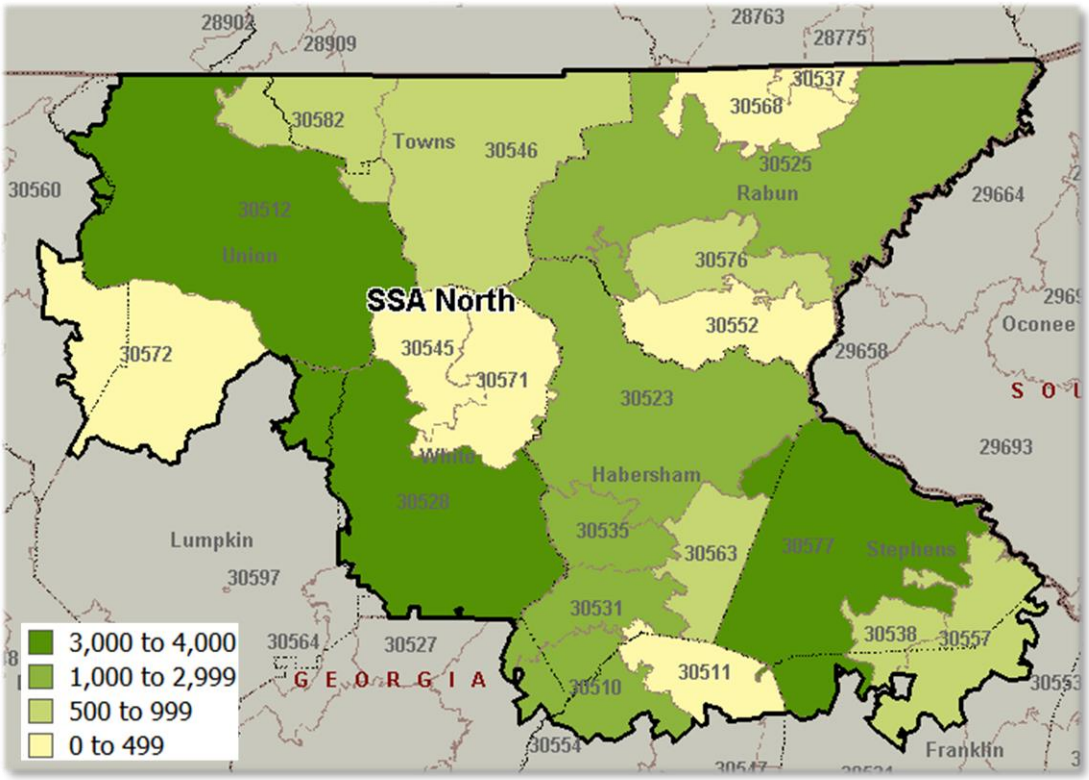
	Uninsured	Private - Exchange	Private - ESI	Private - Direct	Medicare Dual Eligible	Medicare	Medicaid
2016 Covered Lives	24822	13229	58695	5505	6805	31266	16333
2021 Covered Lives	27038	14092	55835	5658	7400	35347	16375
5 Year % Change	9%	7%	-5%	3%	9%	13%	0%

Source: Truven Health Analytics, 2016

These three ZIP codes have the largest number of uninsured people in the SSA North Community:

- 30512
- 30528
- 30577

SSA North: 2015 Estimated Uninsured Lives by ZIP Code



Source: Truven Health Analytics, 2016

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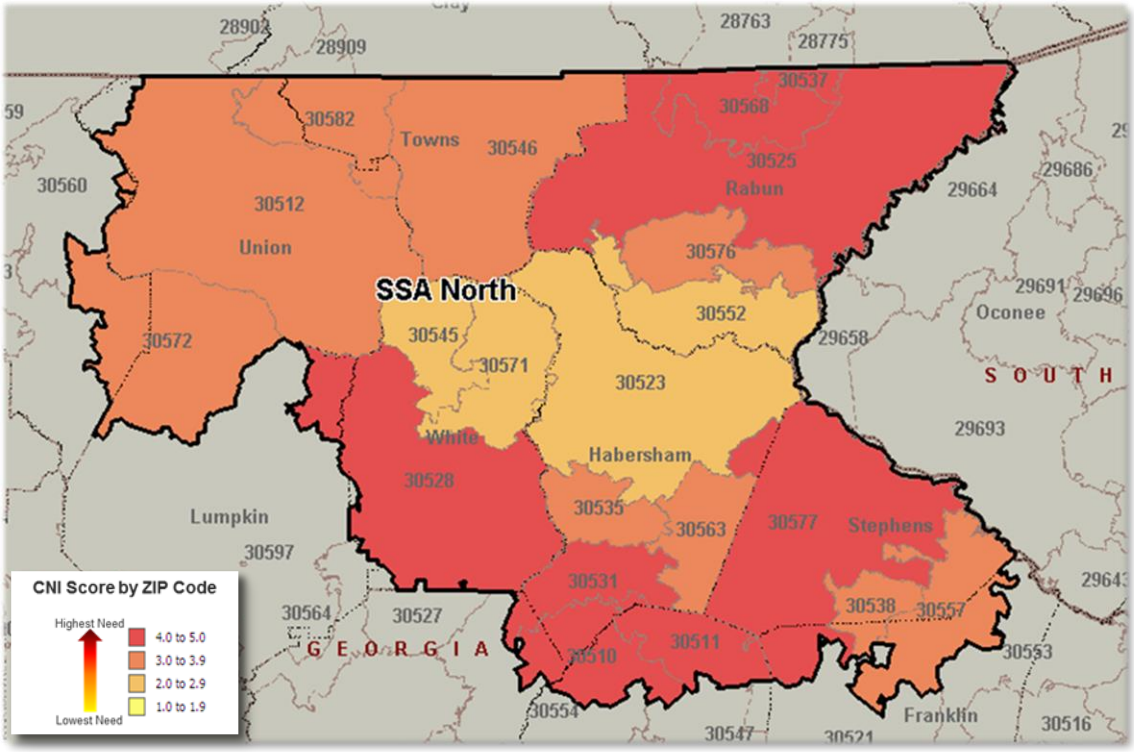
The CNI is measured on a scale of one to five with five indicating the greatest need. Overall, the SSA North community has a higher CNI than the nation. The portions of the community where greater healthcare needs are anticipated include the red shaded ZIP codes. This includes the north east portion of Rabun County and the southern portion of the SSA North community, including portions of White, Habersham and Stephens Counties. The SSA North community has an overall CNI Score of 3.8

2015 Community Need Index by ZIP Code



Source: Truven Health Analytics, 2016

Public Health Indicators

Public health indicators were collected and analyzed to assess the community's health needs. For each health indicator, a comparison was made between the most recently available community data and benchmarks for the same/similar indicator. Benchmarks were based on available data and included the United States and the state of Georgia. A health need was identified when the community indicator did not meet the state's comparative benchmark. The indicators that did not meet the state benchmark for one or more of the counties in the NGMC communities included the following:

Population
- Residential Segregation
- High School Graduation Rate
- High School Dropouts
- Some College
- Children in Poverty
- Children in Single-parent Households
- Median Household Income
- Individuals Living Below Poverty Level
- Families in Poverty
- Children Eligible for Free Lunch
- Percent of Households w/ a Disability
- Unemployment Rate
- Violent Crime Rate
- Homicides
- Child Abuse/Neglect
- Births to Mothers with less than 12 years of education
- Births to Mothers with high school graduation

Injury & Death
- Heart Disease Death Rate
- Overall Cancer Death Rate
- Chronic Lower Respiratory Disease Death Rate
- Stroke Death Rate
- Unintentional Injury Death Rate
- Major Cardiovascular Deaths
- Mental and Behavioral Disorder Deaths
- COPD Deaths
- Diabetes Deaths
- Premature Death
- Fatal Injuries
- Injury Deaths
- Motor Vehicle Crash Mortality Rate
- Alcohol-Impaired Driving Deaths
- Drug Overdose Deaths
- Child Mortality
- Infant Mortality

Mental Health
- Population to Mental Health Provider Ratio
- Poor Mental Health Days
- Suicide Rate
- Lack of Social and Emotional Support

Health Outcomes
- Poor or Fair Health Status
- Physically Unhealthy Days
- Musculoskeletal System and Connective Tissue Disease Discharges
- All Other Mental and Behavioral Disorders Discharges
- Major Cardiovascular Disease Discharges
- Blood Poisoning (Septicemia) Discharges
- Pneumonia Discharges
- Diseases of the Genitourinary System Discharges
- Injury due to Falls Discharges
- External Cause of Injury Discharges
- Endocrine, Nutritional and Metabolic Diseases Discharges
- Cancer (all causes) Incidence
- Breast Cancer Incidence
- Colon Cancer Incidence
- Lung Cancer Incidence
- Prostate Cancer Incidence
- Diabetes Prevalence
- Hypertension Prevalence
- Heart Disease Prevalence
- Stroke Incidence
- Alzheimer's Disease/ Dementia Prevalence
- Arthritis Prevalence
- Low Birth Weight
- Very Low Birth Weight
- Preterm Births

Health Behaviors
- Adult Obesity
- Physical Inactivity
- No Exercise
- Insufficient Sleep
- Adult Smoking
- Adults Binge Drinking
- Excessive Drinking
- Illicit Drug Use
- Marijuana Use
- Teen Birth Rate
- Adult Smoking
- Adolescent Smoking
- Smoking during Pregnancy

Prevention
- Colorectal Screening
- Diabetic Screening
- Mammography
- Pap Smear
- Flu Vaccine 65+

Environment
- Access to Exercise Opportunities
- Limited Access to Healthy Foods
- Driving Alone to Work
- Air Pollution

Access to Care
- Percent Uninsured
- Uninsured Children
- Health Care Costs
- Delayed Care due to Cost
- Population to Primary Care Physician Ratio
- Population to Primary Care Providers (non-MD)
- Population to Dentist Ratio
- Preventable Hospital Stays
- Ambulatory Sensitive Discharges

Additionally, examining areas that are potentially underserved, the community includes seventeen (39) Health Professional Shortage Areas and four (15) Medically Underserved Areas as designated by the U.S. Department of Health and Human Services Health Resources Services Administration.[2] ***Appendix E*** includes the details on each of these designations.

Health Professional Shortage Areas and Medically Underserved Areas and Populations

	Health Provessional Shortage Areas (HPSA)				Medically Underserved Area/Population (MUA/P)
PSA	**Dental Health**	**Mental Health**	**Primary Care**	**TOTAL HPSA**	**MUA/P**
Hall County	0	1	0	1	1
TOTAL	**0**	**1**	**0**	**1**	**1**

SSA 400	**Dental Health**	**Mental Health**	**Primary Care**	**TOTAL HPSA**	**MUA/P**
Lumpkin County	1	1	1	3	1
Dawson County	0	1	0	1	1
TOTAL	**1**	**2**	**1**	**4**	**2**

SSA NORTH	**Dental Health**	**Mental Health**	**Primary Care**	**TOTAL HPSA**	**MUA/P**
Rabun County	0	1	1	2	1
Habersham County	1	2	2	5	1
Stephens County	0	1	0	1	1
Union County	1	1	1	3	1
White County	0	1	0	1	1
Towns County	0	1	2	3	1
Banks County	1	1	1	3	1
TOTAL	**3**	**8**	**7**	**18**	**7**

GBSA	**Dental Health**	**Mental Health**	**Primary Care**	**TOTAL HPSA**	**MUA/P**
Jackson County	0	1	0	1	1
Barrow County	1	1	0	2	1
Gwinnet County	2	4	3	9	1
Hall County	0	1	0	1	1
Banks County	1	1	1	3	1
TOTAL	**4**	**8**	**4**	**16**	**5**

[2] U.S. Department of Health and Human Services, Health Resources and Services Administration, 2016

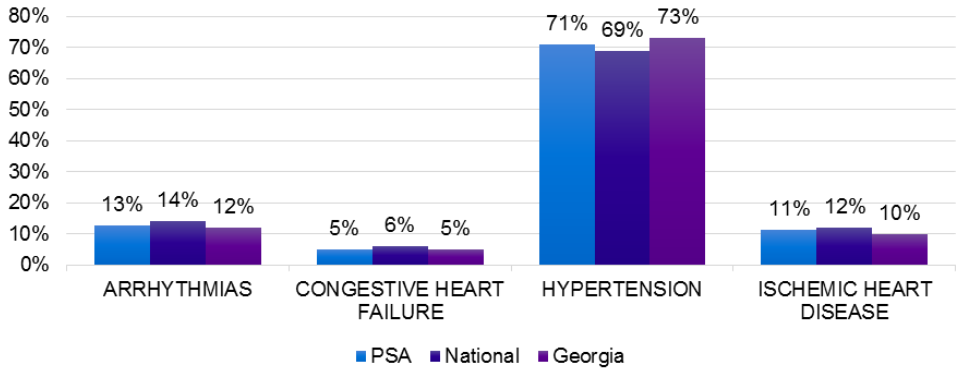
Truven Health Community Data

Truven Health Analytics supplemented the publically available data with estimates of localized disease prevalence for heart disease and cancer as well as emergency department visit estimates.

PSA

Truven Health's Heart Disease Estimates identified hypertension as the most prevalent heart disease related diagnosis, with over 36,000 cases in the PSA community. The next two most common heart diseases were arrhythmias and ischemic heart disease.

2015 Estimated Heart Disease Prevalence



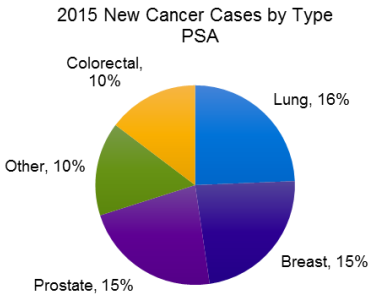
Source: Truven Health Analytics, 2016

Public health indicators do not demonstrate cancer as a significant health need; meaning the incidence and death rate are not significantly different from the state benchmark. However, cancer does exist in the community and Truven Health's 2015 Cancer Estimates project the number of new cancer cases by type expected for the PSA community.

2015 Estimated Cancer Cases

2015 New Cancer Cases

Cancer Type	2015
Lung	133
Breast	128
Prostate	123
Other	83
Colorectal	81
Melanoma	42
Non Hodgkins Lymphoma	34
Bladder	29
Pancreatic	26
Thyroid	23
Uterine Corpus	23
Kidney	22
Leukemia	22
Oral Cavity	20
Ovarian	13
Brain	10
Stomach	9
Uterine Cervical	5
Total 2015 Cases	826

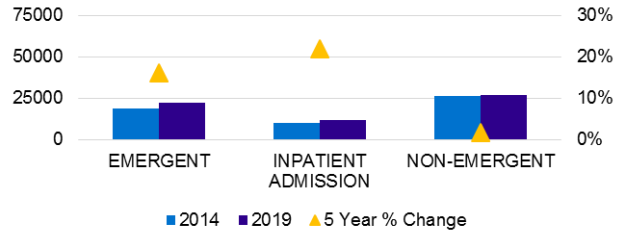


Source: Truven Health Analytics, 2016

Truven Health estimates emergent ED visits to increase 17% in the community over the next five years. Non-emergent, ED visits are lower acuity visits that present in the ED but possibly can be treated in other more appropriate, less intensive outpatient settings. Non-emergent ED visits can be an indication that there are systematic issues with access to primary care or managing chronic conditions. Non-emergent ED visits make up the largest share of ED visits at 48%, this proportion is slightly below Georgia and is not projected to change over the next five years.

Emergent and Non-Emergent ED Visits

2014 ED Visits

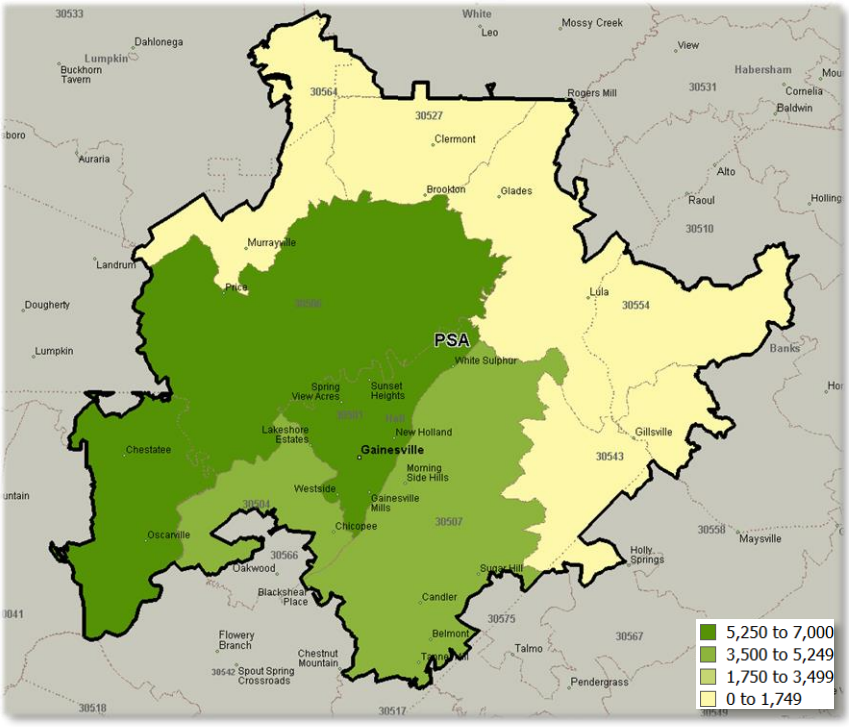


Benchmarks

Visit Type	Percentage of Total ED Visits PSA	Georgia	National
EMERGENT	34%	31%	34%
INPATIENT ADMISSION	18%	16%	18%
NON-EMERGENT	48%	53%	48%

Source: Truven Health Analytics, 2016

2014 Estimated Non-Emergent Visits by ZIP Code

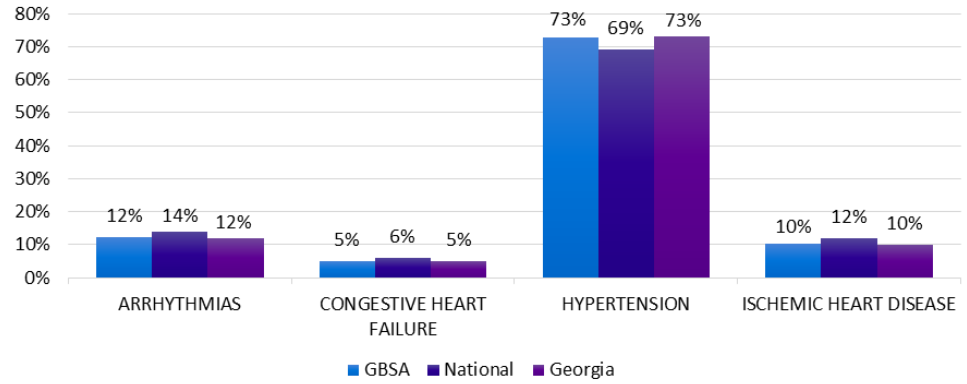


Source: Truven Health Analytics, 2016

GBSA

Truven Health's Heart Disease Estimates identified hypertension as the most prevalent heart disease related diagnosis, including over 87,000 cases in the GBSA community. This was followed by arrhythmias and ischemic heart disease.

2015 Estimated Heart Disease Prevalence



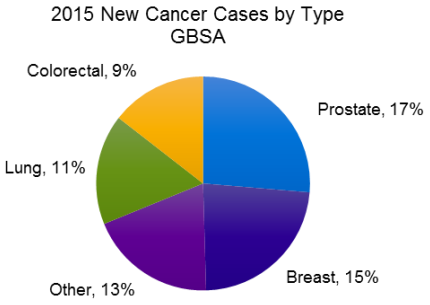
Source: Truven Health Analytics, 2016

Public health indicators demonstrate cancer death rate, as well as lung and colon cancer incidence as significant health needs; meaning the incidence and death rate are occurring at a higher rate per population in the GBSA community than the state benchmark. However, other cancer types do exist in the community and Truven Health's 2015 Cancer Estimates project the number of new cancer cases by type expected for the GBSA community.

2015 Estimated Cancer Cases

2015 New Cancer Cases

Cancer Type	2015
Prostate	316
Breast	279
Other	231
Lung	200
Colorectal	174
Melanoma	104
Non Hodgkins Lymphoma	72
Bladder	63
Leukemia	57
Pancreatic	56
Thyroid	54
Uterine Corpus	51
Kidney	50
Oral Cavity	46
Ovarian	30
Brain	24
Stomach	21
Uterine Cervical	12
Total 2015 Cases	1842



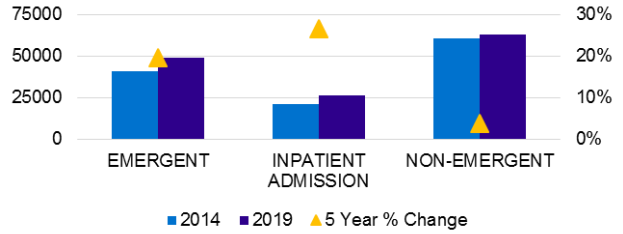
Source: Truven Health Analytics, 2016

Truven Health estimates emergent ED visits to increase 20% in the community over the next five years. Non-emergent, ED visits are lower acuity visits that present in the ED but possibly can be treated in other more appropriate, less intensive outpatient settings. Non-emergent ED visits can be an indication that there are systematic issues with access to

primary care or managing chronic conditions. Non-emergent ED visits make up the largest share of ED visits at 50%, but that proportion is actually slightly below that of Georgia and is projected to increase just slightly over the next five years. The greatest number of non-emergent ED visits are estimated to be generated by residents the southern and western portions of the GBSA community. These ZIP codes also tend to have greater numbers of uninsured.

Emergent and Non-Emergent ED Visits

2014 ED Visits

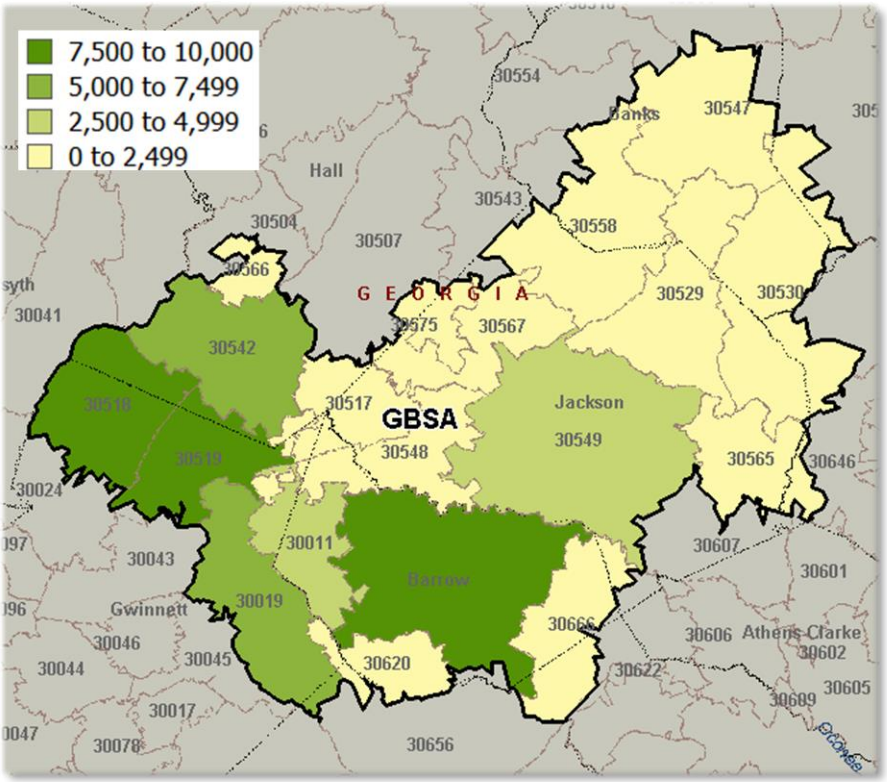


Benchmarks

Visit Type	Percentage of Total ED Visits GSBA	Georgia	National
EMERGENT	33%	31%	34%
INPATIENT ADMISSION	17%	16%	18%
NON-EMERGENT	50%	53%	48%

Source: Truven Health Analytics, 2016

2014 Estimated Non-Emergent Visits by ZIP Code



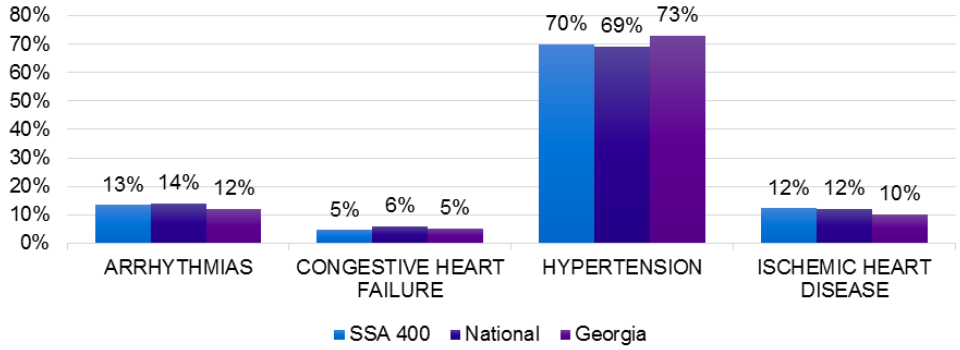
Source: Truven Health Analytics, 2016

SSA 400

Truven Health Analytics supplemented the publically available data with estimates of localized disease prevalence for heart disease and cancer as well as emergency department visit estimates.

As expected, Truven Health's Heart Disease Estimates identified hypertension as the most prevalent heart disease related diagnosis, including over 14,000 cases in the SSA 400 community. This was followed by arrhythmias and ischemic heart disease.

2015 Estimated Heart Disease Prevalence



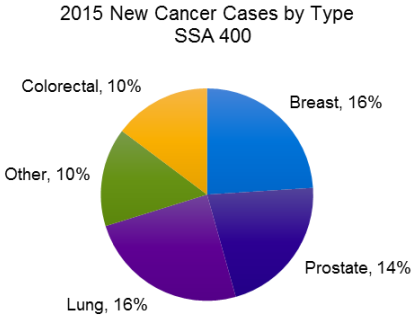
Source: Truven Health Analytics, 2016

Public health indicators demonstrate cancer death rate, as well as lung cancer incidence as significant health needs; meaning the incidence and death rate are occurring at a higher rate per population in the SSA 400 community than the state benchmark. However, other cancer types do exist in the community and Truven Health's 2015 Cancer Estimates project the number of new cancer cases by type expected for the SSA 400 community.

2015 Estimated Cancer Cases

2015 New Cancer Cases

Cancer Type	2015
Lung	55
Breast	53
Prostate	48
Other	33
Colorectal	33
Melanoma	19
Bladder	15
Non Hodgkins Lymphoma	14
Pancreatic	10
Kidney	9
Uterine Corpus	9
Thyroid	9
Leukemia	9
Oral Cavity	8
Ovarian	6
Brain	4
Stomach	4
Uterine Cervical	2
Grand Total	340



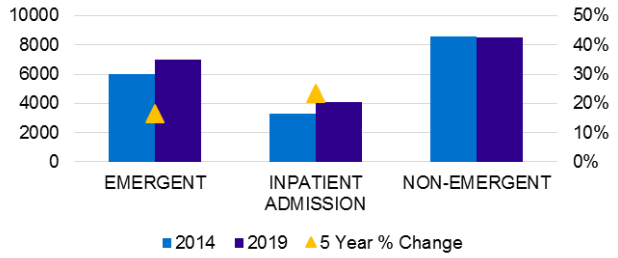
Source: Truven Health Analytics, 2016

Truven Health estimates emergent ED visits to increase 15% in the SSA 400 community over the next five years. Non-emergent, ED visits are lower acuity visits that present in

the ED but possibly can be treated in other more appropriate, less intensive outpatient settings. Non-emergent ED visits can be an indication that there are systematic issues with access to primary care or managing chronic conditions. Non-emergent ED visits make up 48% of the estimated ED visits in the SSA 400 community. This proportion is below that of Georgia and is not projected to change over the next five years. The largest number of non-emergent ED visits is generated by residents in Lumpkin County, tracking with the community health needs index.

Emergent and Non-Emergent ED Visits

2014 ED Visits

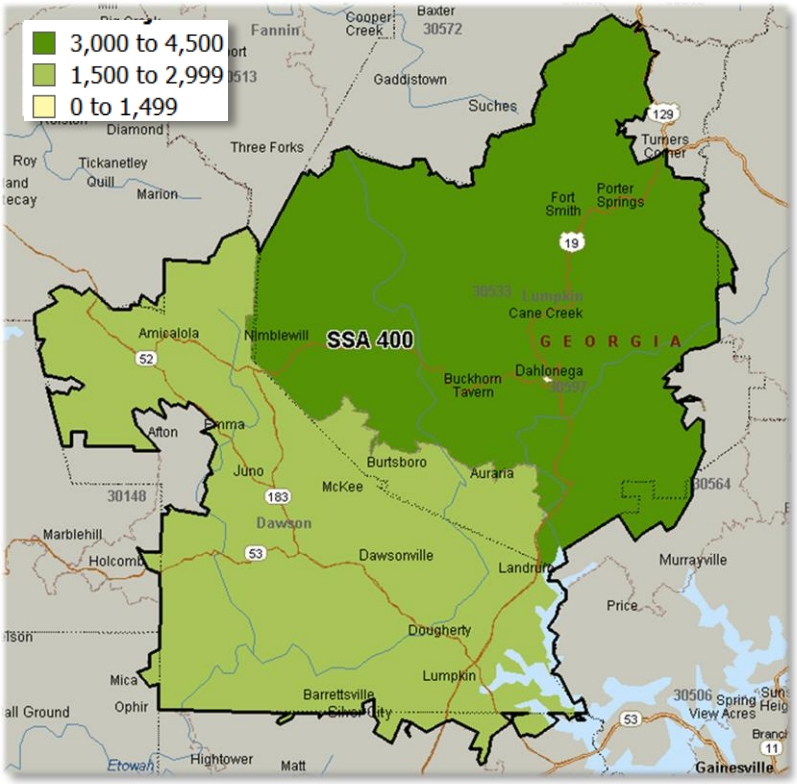


Benchmarks

Visit Type	Percentage of Total ED Visits SSA 400	Georgia	National
EMERGENT	34%	31%	34%
INPATIENT ADMISSION	19%	16%	18%
NON-EMERGENT	48%	53%	48%

Source: Truven Health Analytics, 2016

2014 Estimated Non-Emergent Visits by ZIP Code



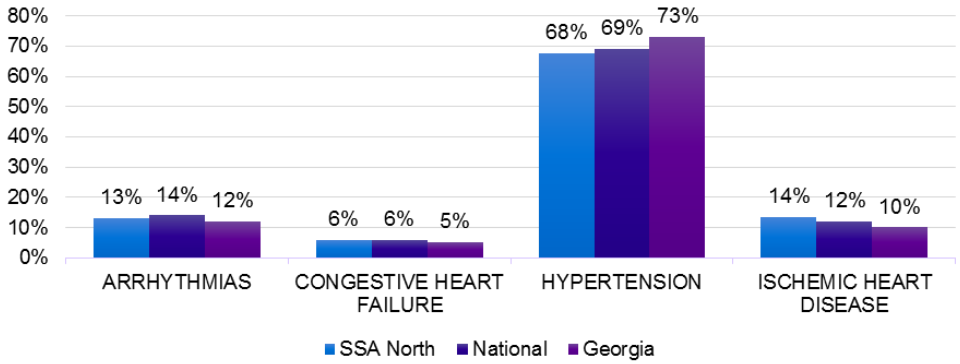
Source: Truven Health Analytics, 2016

SSA North

Truven Health Analytics supplemented the publically available data with estimates of localized disease prevalence for heart disease and cancer as well as emergency department visit estimates.

As is often the case, Truven Health's Heart Disease Estimates identified hypertension as the most prevalent heart disease related diagnosis, including over 47,000 cases in the SSA NORTH community. This was followed by arrhythmias and ischemic heart disease.

2015 Estimated Heart Disease Prevalence



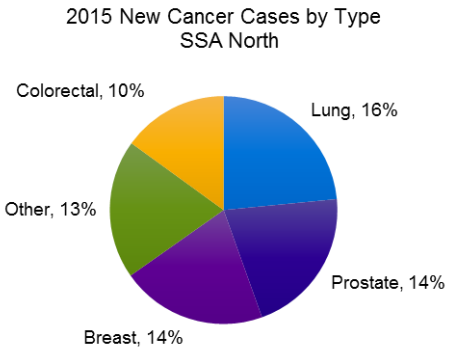
Source: Truven Health Analytics, 2016

Public health indicators demonstrate cancer death rate, as well as prostate and colon cancer incidence as significant health needs; meaning the incidence and death rate are occurring at a higher rate per population in the SSA North community than the state benchmark. However, other cancer types do exist in the community and Truven Health's 2015 Cancer Estimates project the number of new cancer cases by type expected for the SSA North community.

2015 Estimated Cancer Cases

2015 New Cancer Cases

Cancer Type	2015
Lung	199
Prostate	178
Breast	176
Other	167
Colorectal	127
Melanoma	62
Bladder	55
Non Hodgkins Lymphoma	48
Pancreatic	37
Kidney	34
Uterine Corpus	32
Thyroid	29
Leukemia	29
Oral Cavity	27
Ovarian	16
Stomach	13
Brain	13
Uterine Cervical	5
Total 2015 Cases	1249

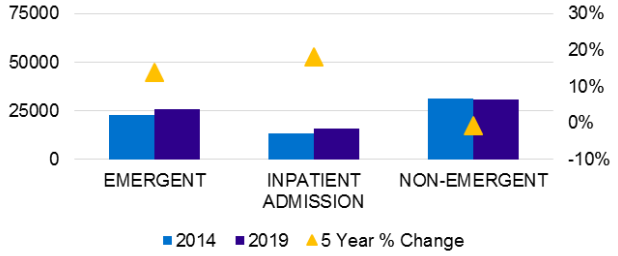


Source: Truven Health Analytics, 2016

Truven Health estimates emergent ED visits to increase roughly 15% in the community over the next five years. Non-emergent, ED visits are lower acuity visits that present in the ED but possibly can be treated in other more appropriate, less intensive outpatient settings. Non-emergent ED visits can be an indication that there are systematic issues with access to primary care or managing chronic conditions. Non-emergent ED visits make up a large share of ED visits at 46%, but the proportion is actually slightly below Georgia and is not projected to change over the next five years. Union County had the largest number of Non-emergent ED visits.

Emergent and Non-Emergent ED Visits

2014 ED Visits

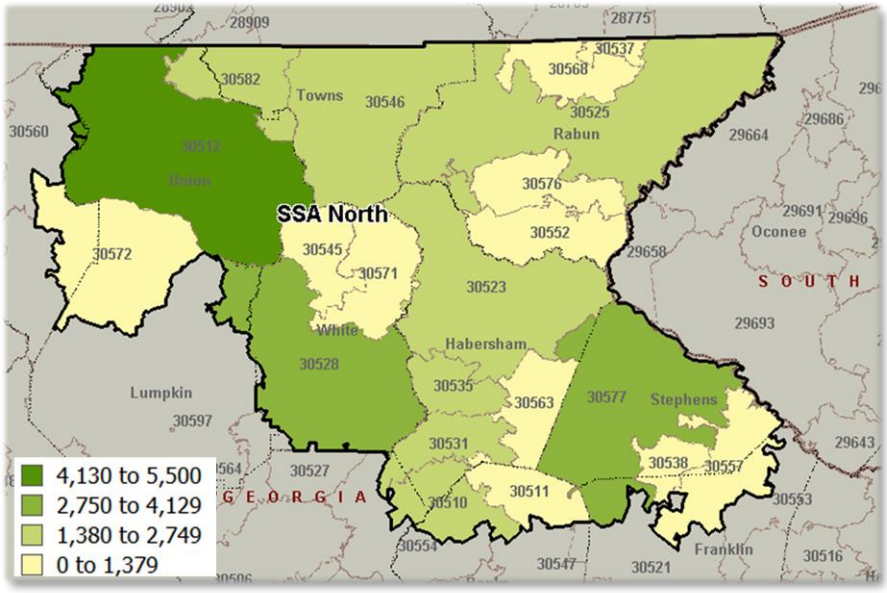


Benchmarks

Visit Type	Percentage of Total ED Visits SSA NORTH	Georgia	National
EMERGENT	34%	31%	34%
INPATIENT ADMISSION	20%	16%	18%
NON-EMERGENT	46%	53%	48%

Source: Truven Health Analytics, 2016

2014 Estimated Non-Emergent Visits by ZIP Code



Source: Truven Health Analytics, 2016

Community Input: Focus Groups, Interviews, and Surveys

Northeast Georgia Medical Center (NGMC) engaged Truven Health Analytics, Inc. (Truven) to conduct a series of focus groups and interviews to assess the perception of the health needs in the northeast Georgia communities they serve. Four focus groups (one for each NGMC community), collectively comprised of forty-six (46) participants, and twenty-eight (28) key informant interviews were conducted March and April 2016. These were conducted to collect information from persons representing the broad interests of the community served. The focus groups and interviews were conducted to solicit feedback from leaders and representatives who serve the community and have insight into its needs. Most of the participants worked with at-risk populations; medically underserved, low-income, minorities and populations with chronic disease were each represented by the group at-large. In addition, participation was solicited from state, local, tribal, or regional governmental public health with knowledge, information, or expertise relevant to the health needs of the communities served by NGMC.

The focus groups were facilitated by a Truven representative and was conducted in two parts. The first part was held with the entire group. During the second part, participants were divided into three groups for smaller breakaway discussions. The discussions were oriented around the following topics:

- Assess the health status of the community
- Identify the top health needs of the community
- Discuss the similarities/differences between the needs identified in the prior exercise and the needs identified in prior assessments
- Identify up to ten community resources (health/community organizations) that exist to address the top three needs identified

Truven Health also conducted key informant interviews for the community served. The interviews were designed to help understand and gain insight into how participants feel about the general health status of the community and the various drivers contributing to health issues.

To further ensure that the needs of vulnerable populations were captured, a bilingual interview team from The Johnson Group fielded a short health questionnaire of residents at the Hall County Health Department, the Good News Clinic, and at public housing operated by the Gainesville Housing Authority. These locations were chosen to ensure participants represented lower income, Latino and uninsured residents. Two hundred and eleven (211) surveys were completed in March 2016. Questions included the following:

- How well are your family's health needs being met?
- What prevents your family from getting the care you/they need?
- What problems do you have getting your health needs met?
- What would you say is your greatest health need?

The findings of the community input are summarized below by NGMC community. The interview and focus group participants and the populations they serve for each

community are documented in **Appendix F** and the survey results can be found in **Appendix G**.

PSA

The city of Gainesville and Hall County area is a diverse community. There are significant differences in socioeconomic, education, access to care, and health status across the community. The community input acknowledged that these difference create subpopulations with unique health needs and priorities. The feedback received demonstrated how these factors impact health of the community. The input received identified several health priorities for the residents of Gainesville and Hall County. These top health needs of the community were organized around several themes: **access to health care, disease management, preventive care and coordination of services**.

Access to Healthcare

Access issues are broad and complex. They are multi-causal and can relate to issues with transportation, availability of specific services within a community, or financial in nature. The common thread with access related issues is that they pose a threat to the overall health of the community. The main factors attributed to access issues in Hall County and the surrounding areas are attributed to provider availability, lack of transportation, cultural barriers, and financial challenges.

Barriers to provider availability were discussed in general, but the participants stressed availability issues specific to primary care, gynecology/obstetrics, geriatric care, and mental health services. There is the perception there are not enough providers to meet the demand for these services. Geriatric care and mental health services are particularly limited, both services were identified a health care need and priority by the PSA focus group.

Disparities in health vary dramatically by race and ethnicity. These disparities are in part due to cultural and language barriers. Undocumented workers resist seeking care and services out of fear of deportation. Hispanic minorities face language barriers as many providers are not Spanish speaking. Additionally, many clinics and hospitals do not have printed materials for patients that do not speak English. These language barriers are magnified for non-Hispanic immigrants. The area is seeing a growth in migrant populations that are new to the community and these residents face even more limited resources. A growing West African immigrant population was provided as an example of a group that may struggle with language barriers in the area.

Poverty was recognized as an ongoing concern for Gainesville and Hall County. Poverty rates are directly linked to the overall health of a community because families that face financial concerns frequently place lower priority on expenses related to health care. The community has made some efforts to assist low-income residents. The focus group reported the successes of the area's free clinics and believed that these services should be expanded.

Participants acknowledged access issues for the community's uninsured and underinsured populations. Participants believed that the volume of underinsured

population goes unacknowledged and it is made up primarily of the working poor. Uninsured residents are mostly adults – Georgia's Children's Health Insurance Program (CHIP) for children, PeachCare for Kids, covers low-income children. Underinsured residents who obtain insurance through exchanges often struggle with the expensive copays, deductibles associated with high-deductible health plans, and costs associated with prescription medications. The focus group believed that many uninsured and underinsured residents are seeking non-emergent care in emergency rooms because payment is not required at the time of service.

Access issues for low-income residents are not limited to payment for healthcare services. Access barriers can also be related to residents' abilities to purchase healthy foods and reliable transportation, both of which impact low-income residents disproportionally. Transportation was frequently discussed in all community input sessions as a barrier to obtaining health care; the existing transportation system does not support the needs of the residents and many in the community do not view alternatives such as walking or biking as viable options.

Preventive Services & Wellness Initiatives

Preventive services and wellness initiatives can significantly improve overall health of a community. Preventive services include clinical and community services that support healthier lifestyles such as mental health, abuse prevention, geriatric care, and chronic disease management. They also address health concerns like substance abuse, obesity, diabetes, and teen pregnancy. Wellness initiatives promote healthy lifestyles. The focus group identified improving these services as a health priority for the community. The participants noted successes with some preventive services and cited recent improvements in teen pregnancy rates as an example. Services focused on geriatric care, abuse prevention, mental health services, and wellness were identified as opportunities in the community. Chronic disease management is frequently included under the umbrella of preventive services, but is addressed independently for purposes of this report.

Preventive care as it relates to mental health services is generally aimed at early intervention and support. The community can improve efforts to address mental health awareness and promoting follow-up care. These efforts should be coupled with an increase of area providers and facilities.

Geriatric care was also identified as another opportunity for focused preventive services. Participants were concerned about an increase in the aging population and the ability to support their health needs. Preventive services for the elderly can include disease screening, immunization, and accident prevention education. Participants noted that an increase in trauma volumes is due to falls, largely attributed to older residents.

Focus group participants also indicated a need for campaigns directed at reducing rates of drowning and abuse. Drowning rates are a problem, particularly for immigrant populations. Abuse and neglect rates of children and the elderly is also a concern for the community.

Both the focus group and interview participants identified education around healthy living habits and lifestyles is lacking. Wellness initiatives are required to combat unhealthy habits inherited from previous generations. Participants believed that the communities could address concerns with obesity, substance abuse and smoking, and diabetes prevention with community wellness initiatives.

Chronic Disease Management

The PSA community input also identified disease management and care coordination as a top health priority for the community. The participants believe that chronic diseases are prevalent in the community, and the community needs to improve support for compliance and follow-up care to reduce acute episodes. The diseases and/or conditions that are areas of focus included cancer, heart disease and diabetes

GBSA

The participants represented communities and neighborhoods throughout the GBSA community. The represented communities include diverse populations with significant differences socioeconomic, education, access to care, and health status. Despite differences within the GBSA community, the input sessions did identify overarching themes. **Access to health care, effective preventive care and services, and improvements in community education and communication** were identified as the top health needs of the communities.

Access to Healthcare

Access to comprehensive health care is important to the overall health of a community. Ensuring access to healthcare services is critical to meeting many other healthcare priorities – comprehensive preventive services, state of the art equipment and best intended public health programs are of little value without community access. Barriers to access are difficult to address. Access issues are multi-causal and impact subsets of the population differently. The main factors attributed to access issues in the represented communities are structural barriers related to transportation, lack of financial resources, and a need for providers in specific specialties.

There are several healthcare facilities serving the represented communities, but some subsets of the population face transportation related issues that impact their ability to access care effectively. Public transportation does not effectively address this gap, as it is only available in small pockets of the community, with no availability in the more rural communities. Low-income and elderly populations do not always have reliable means of transportation so they are particularly vulnerable to these issues.

The participants noted that a need for affordable housing has forced some residents to live further away from town, exacerbating transportation issues as an obstacle to care. These people have to address transportation issues in addition to the other disparities that low income populations face.

Transportation barriers have an impact on community health that go beyond one's ability to seek services, they also impact the ability to make healthy lifestyle choices. The

existence of food deserts in northeast Georgia makes it difficult for populations impacted by transportation barriers to buy healthy foods.

Recent economic developments have not benefitted subsets of the population equally. While there are more affluent areas of the community, the community still struggles with unemployment and underemployment. Jobs are being created, but the positions do not always offer salaries comparable to the manufacturing jobs that were available historically. This is compounded by the availability of fewer full-time positions. This dynamic has led to a growth in underemployed workers. These workers are less likely to seek care due to the inability to meet self-pay and co-pay/deductible responsibilities. These people frequently use Emergency Rooms for healthcare services that could be treated more effectively if addressed early. Cost of medications was raised as a barrier to health care for lower income residents.

More rural communities in the northeastern GBSA community are less impacted by the economic growth and maintain their dependence on agriculture. Rural communities are impacted by generational poverty and continued dependence on government resources. Public health budgets have been cut consistently for ten years and this negatively impacts access to care for dependent populations.

The opening of River Place in the greater Braselton area has improved access to specialty services. Increased access to pulmonology, orthopedics, and surgical specialists were cited as specific improvements, though the transportation and financial barriers noted above continue to limit access to these specialties for some populations including residents in Jackson and Barrow counties. Provider availability continues to be a barrier for individuals seeking mental health and substance abuse services, regardless of socioeconomic status and insurance coverage.

Issues with access to mental health and substance abuse services were largely attributed to an inadequate number of health practitioners and facilities. Because the need for mental health resources exceeds availability, needs are met during crisis situations and access to non-acute care for ongoing follow-up and treatment is limited. Participants attributed these problems to issues with the state of Georgia's mental health system, which is underfunded and understaffed.

Other barriers related to provider availability are attributed more directly to an increasing number of consumers seeking care in urgent care clinics. Patients that seek care in these settings are adversely impacted because of challenges related to coordinating care, ensuring adequate follow-up care and maintaining continuity of care.

Preventive Health Services

Preventive health services directly impact the overall health of a community. These services can address public health issues related to obesity, diabetes, teen pregnancy, and substance abuse. The focus group noted some recent successes in preventive health services, but other areas still lag. Rates of teen pregnancy and sexually transmitted

diseases have improved due to an increase in the number of community partnerships teen clinics. Other preventive health services need more.

The GBSA community struggles with public health issues related to obesity. Preventive health programs related to diet and nutrition are needed to address lifestyle habits that contribute to obesity and related diseases. Preventive health services should also reinforce the connection between obesity and other chronic diseases.

Services related to early intervention and disease management are another gap for the communities in the GBSA community. Residents diagnosed with chronic disease need access to resources that can support efforts in managing their conditions to avoid acute episodes.

The preventive health services available to communities today are not effectively utilized because people are not aware of the services available to them. Preventive health services would be more effective with better community education and communication, which was noted as the third area of focus for health needs in the GBSA community.

Community Education & Communication

Health education and communication was another topic cited in the community input sessions as a health care priority for the GBSA community. Increased communication regarding available services is critical to the success these services can have in the community. The general consensus is that the public is not aware of existing services available to them. Increased efforts in healthcare education are needed around healthy lifestyles and understanding the healthcare system.

Today's healthcare system is large and complex. Health literacy, or an understanding of the health system, health factors, and health decisions is critical to building engaged and informed communities. Unfortunately, developing health literacy is difficult for many at-risk populations, which worsens the impact of existing disparities.

Education around healthy living habits and lifestyles is lacking. Some communities are deeply rooted in lifestyles that have created unhealthy patterns for generations. Education that focuses on the impact of diet and exercise on overall health is important. Education efforts should support the work of preventive health services offered in the communities.

SSA 400

The focus group participants represented communities and neighborhoods throughout Dawson and Lumpkin counties in the SSA 400 community. The represented areas include diverse populations with significant differences in socioeconomic, education, access to care and health status. Though different, the focus group participants did identify overarching themes regarding health needs and priorities. **Access to health care, improvements in community education and communication, and access to mental health services**.

Access to Healthcare

The overall health of a community is linked to access to comprehensive health care. The area has medical centers, but some residents struggle with access issues. The primary factors attributed to access issues in the represented communities are transportation related, lack of financial resources, and a need for providers in specific specialties and greater access to acute care services.

Some access issues are attributed to the need for area transportation services. The focus group reported that the community ranked 40th (out of 159) in a recent Georgia Community Health Survey due in part to a gap in transportation services. Transportation, or the lack thereof, can significantly impact some residents' ability to access health services. Particularly vulnerable groups are the low-income and elderly populations. These issues have an impact on community health beyond the ability to seek provider services, they also impact the ability to make healthy lifestyle choices. Residents experiencing transportation issues may find it difficult to access healthier food. The focus group acknowledged the presence of food deserts in some areas, making fast food options more convenient.

The SSA 400 area is recognized as a more affluent area in Georgia. Despite relatively high incomes, many residents struggle financially. Fifty percent of public school students are on free or reduced lunch. One respondent mentioned that 50% of children did not have insurance coverage before the expansion of PeachCare for Kids six years ago. The costs related to healthcare services are seen as an inhibitor for these residents. The cost of care including medication cost was cited by survey respondents as a barrier they encounter.

Mental health and substance abuse service access issues were largely attributed to an inadequate number of health practitioners and facilities. Because the need for mental health resources exceeds availability, needs are met during crisis situations and access to non-acute care is limited. Participants noted the underfunded and understaffed nature of the state of Georgia mental health system as part of the problem.

Community Education & Communication

Health education and communication was identified a health care priority for the SSA 400 community. Increased communication efforts in healthcare education are needed to promote healthy lifestyles, nutrition and understanding the healthcare system. The participants felt that the concept of wellness is overlooked by the community – residents need to have a better understanding of the impact healthy living decisions has on overall health. The participants discussed issues with disseminating health related literature, as literacy is an issue with some families. The participants suggested leveraging large corporations to distribute wellness communication as they serve residents from all demographics. Participants identified Wal-Mart, Kroger, and CVS specifically. The focus group also identified the Dawsonville Health Fair as a potential outlet.

Mental health services was also recognized as a priority for SSA 400 communities. The participants believe local mental health services are understaffed and underfunded. Despite staffing and funding issues, there are services available to residents that are underutilized. Currently, community agencies work with approximately 400 clients –

however, feedback indicated that residents are not aware of these resources. There is also the perception that many residents lack an understanding of how to respond mental health issues. One participant offered an example of jailing someone experiencing a schizophrenic episode, rather than seeking mental health services as a missed opportunity for intervention. The focus group cited “Family Connection”, a Georgia state funded organization that is used to draw organizations and services together, as an available resource.

SSA North

The SSA North community input identified several key health priorities for the health needs of the SSA North communities. **The participants identified access to local healthcare services, community education and mental health services as the overarching priorities**. While not identified as a specific priority for the community, the participants did note poverty as an important driver in disparities across the three health needs. The issues identified as key priorities are interrelated – access issues can frequently be attributed to gaps in mental health services and vice-versa. Many of the drivers in community health were repeated across each priority. Access to local healthcare services, community education, and mental health services are challenges for many area communities and are very important factors in the community’s health. As such, improvements in these should contribute to improved health for residents living in the SSA North communities.

<u>Access to Healthcare</u>

The community input identified access to quality healthcare services as a challenge for the SSA North service area. The issue is attributed to barriers created by the availability of local providers and affordability. These barriers were noted as issues for the community as a whole, but the impact to some populations is more dramatic.

Participants viewed the availability of providers and local health services as a key driver for issues related to healthcare access. Participants have noticed providers are closing their practice and/or leaving the area. Locally, there is only one free clinic and the long wait times discourage potential patients. Another issue with local care is that residents expressed concerns over the quality of care offered at the local hospitals in the SSA North community.

The participants also discussed the differences between services across the SSA North service area. Some counties, like Habersham, have more resources than neighboring counties. Access to service in Rabun County was described as non-existent. Access to specialty providers was also cited as a need across the SSA North community.

Financial barriers related to poverty and affordability was also identified as a challenge for the SSA North service area. The area struggles with generational poverty that has created access issues for low-income residents. Additionally, the state of Georgia did not expand Medicaid eligibility and many families have found that they make too much to qualify for Medicaid, but not enough to qualify for plans available on the exchanges. These families will forgo care due to the expense. In fact, low-income residents who participated in the survey note cost of care as a major barrier they face.

Community Education & Awareness

Input received also focused on community education and awareness as a priority health need for the SSA North community. The participants believed that a focus on community education and awareness will improve issues related to unhealthy choices and increase the effectiveness of planned (and existing) efforts. These efforts should focus on increasing awareness of health disparities (and available resources). The focus group expressed concerns that some residents were not aware of the services available to them. The participants also identified education around healthy lifestyles as an opportunity. The participants believed that some residents do not make healthy food choices due to habits established as children and choose unhealthy options out of convenience.

Mental Health Services

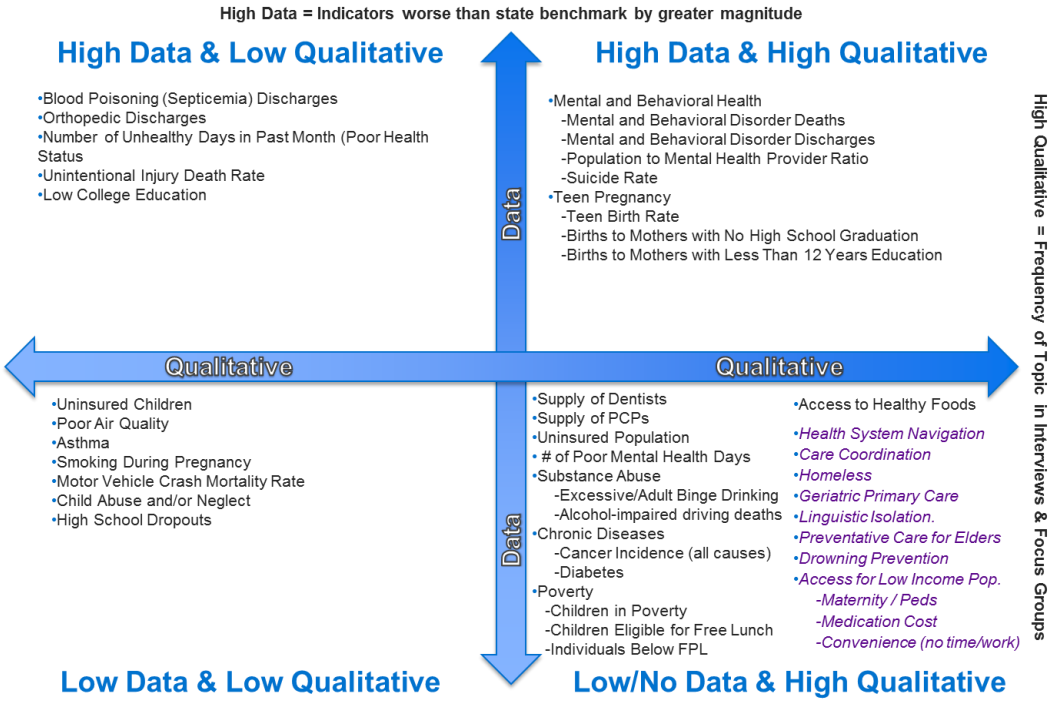
Access to mental health services is considered a gap for SSA North communities. Some services are available in Habersham County, but mental health providers have closed offices throughout the community. Generally, access to mental health services requires residents seeking care to travel, which is not feasible for some residents. The focus group noted that counseling services were particularly limited. The focus group discussed gaps in mental health services compounding issues related to an increase in heroin and prescription drug use. Other participants noted that there is a cultural bias against seeking mental health services – these residents may seek care for mental health issues from religious leaders.

The interview and focus group participants and the populations they serve for each community are documented in **Appendix F** and the survey results can be found in **Appendix G**.

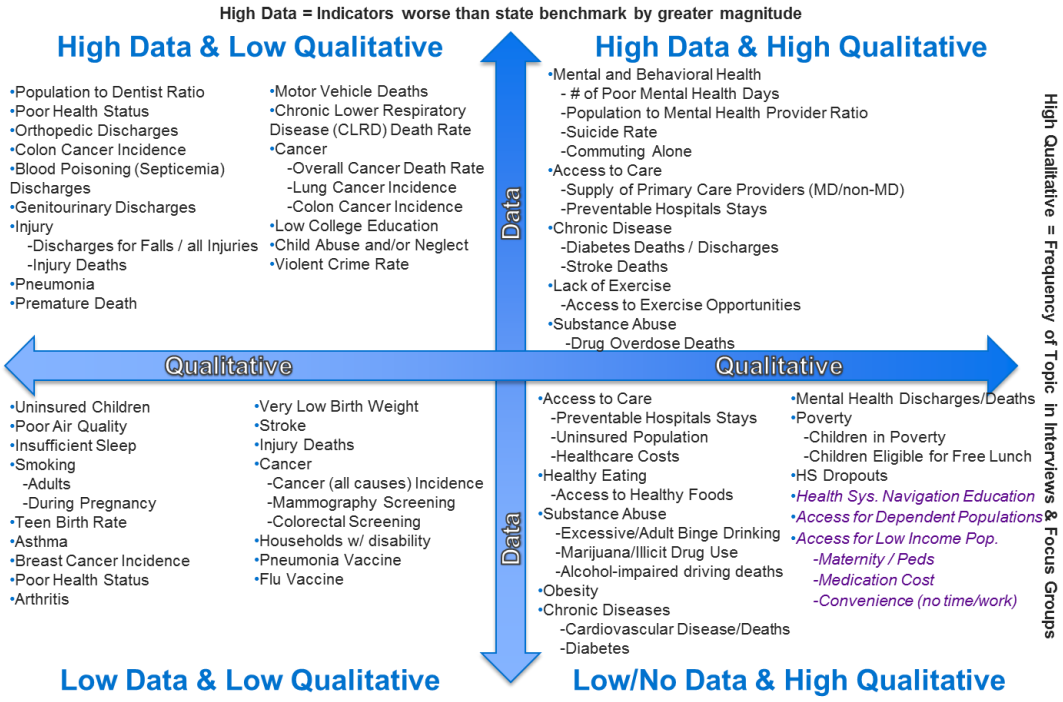
Health Needs Matrix

Quantitative and qualitative data were analyzed and displayed as a health needs matrix to help identify the most significant community health needs for each community. The health needs bolded in the lower right quadrant of the matrix are those identified through qualitative data; however, there is no matching quantitative data measure available. Below are the matrices for each community served by NGMC.

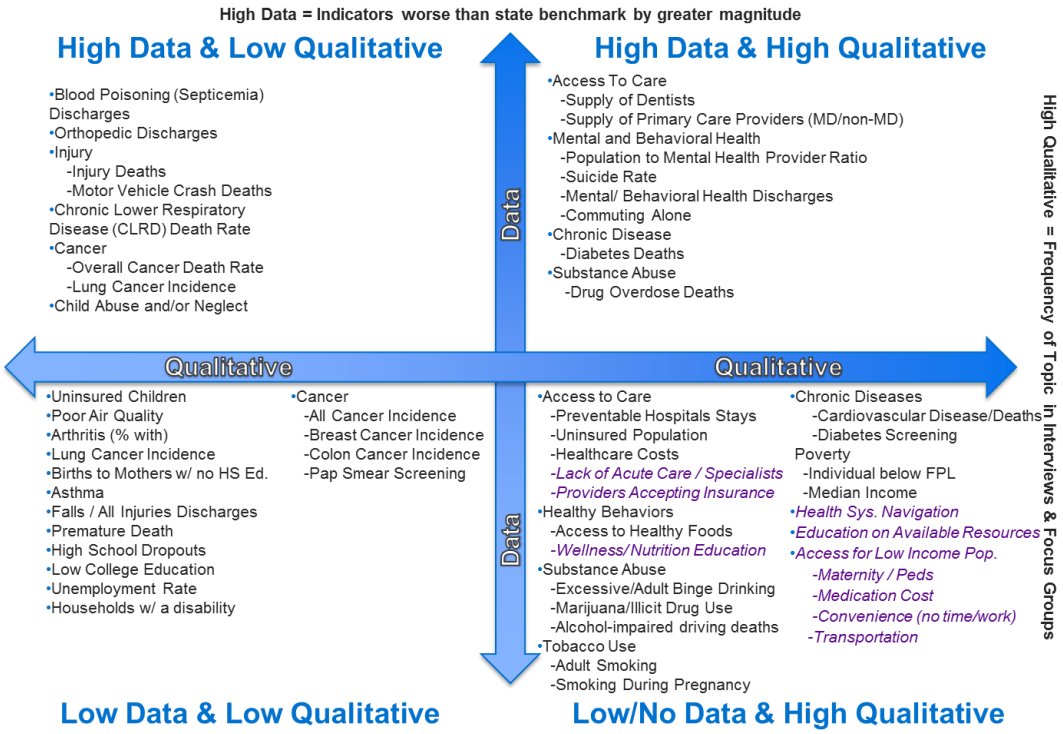
Primary Service Area



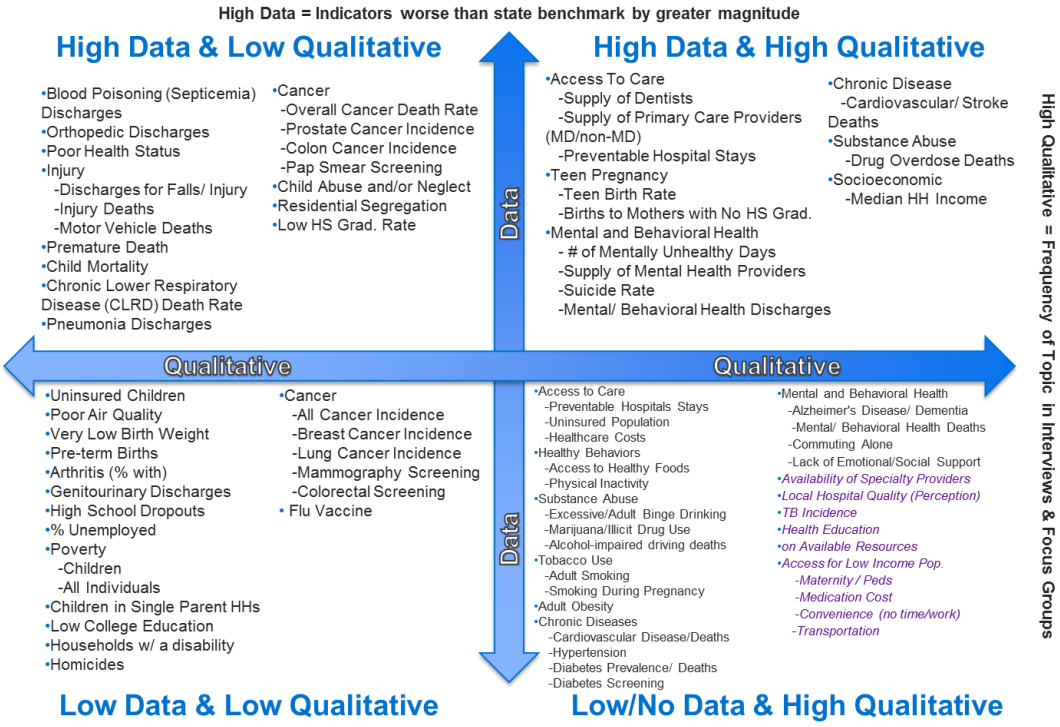
Greater Braselton Service Area



Secondary Service Area 400



Secondary Service Area North



Note: Needs in the lower right quadrant of the matrices which are highlighted in *purple text* are those identified in the qualitative input for which there is not a corresponding quantitative measure

Prioritizing Community Health Needs

In order to identify and prioritize the significant needs of each of the communities, the hospital utilized a comprehensive method of taking into account all available relevant data, including community input.

On March 25, 2015, members of an appointed NGMC Board Level Committee identified four criteria for prioritization of the community health needs that would be subsequently identified through the assessment:

1. Alignment – with mission, vision and values of organization
2. Consequences – disability, premature death, social, economic or other burdens to the community
3. Magnitude – number of people the problem affects, either actually or potentially
4. Root Cause – issue is a root cause of multiple problems, possibly affecting multiple issues

Members of the NGMC Board Level Committee who participated in the session included the following:

Olivia Skey, RN, Chairperson NGPG Board	Billy Boyd NGMC Advisory Board Executive Director Habersham United Way
Tim Evans Health Partners Board VP, Economic Development, Greater Hall Chamber of Commerce	Deborah Mack NGMC Board Community Volunteer and Former Hall County Commissioner
Semuel Maysonet NGMC Advisory Board iMortgage Services Loan Consultant	Phillippa Lewis Moss NGMC Board, NGMC Advisory Board Director, Gainesville Hall County Community Services Center
Jackie Wallace NGMC Board President, United Way Hall County	Kaye A. Herth, Ph.D, RN, FAAN NGMC Board Member Dean Emerita, Minnesota State University, Mankato
Christy Moore NGMC Community Health Improvement	Tracy Vardeman NGMC Chief Strategy Officer

During the assessment, specific needs were identified when an indicator for a community did not meet the corresponding state benchmark. Then, an index of magnitude analysis was conducted to determine the degree of difference from the benchmark to show relative severity. The results of this quantitative analysis were combined with the qualitative findings from the community input sessions to bring forth a list of health needs in the community. These health needs were then classified into one of four quadrants within the health needs matrix: high data, low qualitative; low data, low qualitative; low data, high qualitative; or high data, high qualitative.

On May 24, 2016 a prioritization session was held with the NGMC CHNA Workgroup and members of the NGMC Board Level Committee. Members of these groups included community leaders from various Northeast Georgia Health System boards, as well as

NGMC representatives with high community interaction such as through the emergency department and case management. The meeting was moderated by Truven Health with a goal to review the assessment findings for each community, establish the significant health needs, and then to prioritize those needs using the previously established prioritization criteria. A summary of demographics, health data findings, and health needs matrices for each community were reviewed during this session. This overview also included an explanation of the quadrants of the health needs matrix. Session participants included:

Olivia Skey, RN, Chairperson NGPG Board	Billy Boyd NGMC Advisory Board Executive Director Habersham United Way	Mohak Dave, MD The Medical Center Foundation Board, NGHS Board
Deborah Mack NGMC Board & Community Volunteer and Former Hall County Commissioner	Semuel Maysonet NGMC Advisory Board & iMortgage Services Loan Consultant	Phillippa Lewis Moss NGMC Board, NGMC Advisory Board Director, Gainesville Hall County Community Services Center
Jackie Wallace NGMC Board Former President, United Way Hall County	Rich White Hospital Authority Former CEO, United Community Bank	Linda Berger NGMC Director of Planning
Jo Brewer Administrator NGHS Medical Plaza 400	Janice McKenzie NGMC Case Management	Christy Moore NGMC Community Health Improvement
Linda Nicholson NGMC Controller	Tracy Vardeman NGMC Chief Strategy Officer	Debbie Callahan NGMC ED Patient Care Coordinator and Interim Assistant ED Manager

The participants all agreed the health needs which deserved the most attention and considered significant were those identified both through the quantitative analysis as worse than benchmark by a greater magnitude, as well as identified as a common theme through the qualitative analysis (the upper right quadrant of the health needs matrix). In addition, the group determined that the following needs were significant regardless of where they fell on the matrix due to their impact on the communities:

- Chronic diseases (diabetes, cardiovascular disease, hypertension, stroke, and cancer)
- Access to care
- Child abuse and neglect

Once the significant health needs were determined, session participants broke out into four sub-groups. In the sub-groups, each community's significant health needs were rated on each of the four previously identified criteria utilizing a scale of one (low) to ten (high). The ratings by group were summed for each need, then averaged across all four sub-groups to create an overall score for each health need. The list of significant health needs was than prioritized based on the overall scores.

The session participants subsequently reviewed the prioritized health needs for each community and made a recommendation as to which of the prioritized significant health needs NGMC should address. The recommendation was based on the needs with the highest overall score as well as commonality across the four communities to leverage resources effectively.

On July 21, 2016 the NGMC senior leadership team reviewed the recommendations made by the NGMC CHNA Workgroup and members of the NGMC Board Level Committee. Participants included the following:

Olivia Skey, RN, Chairperson NGPG Board	Christy Moore NGMC Community Health Improvement	Tracy Vardeman NGMC Chief Strategy Officer
Nancy Colston The Medical Center Foundation President & Chief Development Officer	Brenda Simpson Chief Nursing Officer	Steven McNeilly Vice President Managed Care Integration Strategies
Louis Smith NGMC President	Anthony Williamson NGMC Braselton President	Debbie Weber Chief Human Resources Officer
Chris Pavarate Chief of Information Technology	Steve Kelly Chief Compliance Officer	Sam Johnson, MD Chief Medical Officer

The leadership team was solicited for feedback regarding the community health needs identified in the assessment, as well as those recommended by the prioritization session participants. The leadership team took into consideration the impact of the need on the community, current organizational initiatives, as well as the organization's strengths, resources, and ability to impact the health needs identified. After careful consideration, the leadership team validated, refined, and expanded the list of health needs NGMC will address. The finalized community health needs to be addressed by NGMC by geographic area are as follows:

Community	Community Health Need				
	Septicemia	Access to Care	Diabetes	Cancer	Injury
PSA	☑	☑	☑		☑
GBSA	☑	☑	☑	☑	☑
SSA 400	☑	☑	☑	☑	☑
SSA North	☑	☑	☑	☑	☑

Description of the Health Needs to be Addressed by Northeast Georgia Medical Center

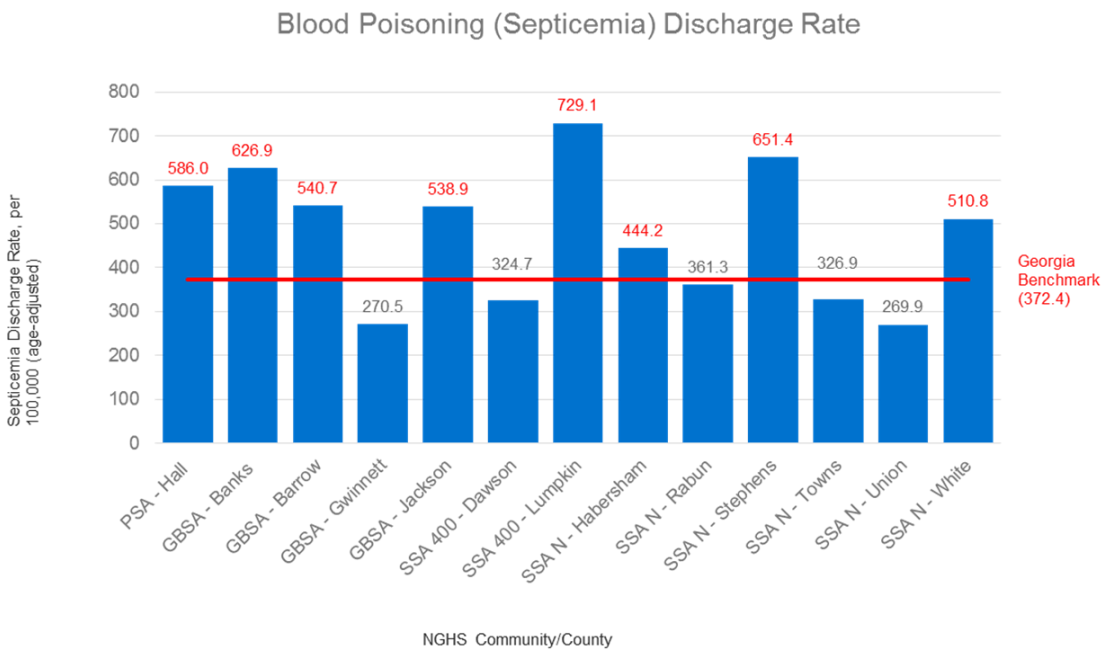
Septicemia

The Center for Disease Control (CDC) defines septicemia, or sepsis, as the "the body's overwhelming and life-threatening response to an infection which can lead to tissue damage, organ failure, and death".[3] Approximately one million Americans are diagnosed with severe sepsis each year.[4] Commonly known as "blood poisoning", sepsis is ranked as the ninth leading cause of disease related death in the United States, killing more than 258,000 people a year.[5] Patients with this condition are often treated in a hospital's intensive care unit and treatment involves caring for sicker patients who have longer inpatient stays than those with other diagnoses. Total nationwide inpatient annual costs of treating those hospitalized for septicemia have been rising and were estimated to be $14.6 billion in 2008.[6] Septicemia and sepsis are often fatal and those who do survive are more likely to have permanent organ damage, cognitive impairment, and physical disability.[7]

Sepsis rates are increasing due to a myriad of reasons, including an aging population, increase in hospitalizations and invasive procedures, and higher rates of populations with chronic conditions. Public health officials are trying to raise awareness around septicemia because early diagnosis has a direct influence on the impact of the infection. Early aggressive treatment increases the chance of survival, and education focused on early diagnosis and prevention can decrease sepsis incidence rates in the community. Widespread adoption of practice improvement programs grounded in evidence-based guidelines (e.g. the "Surviving Sepsis" Campaign) have been tested by a number of hospitals and have shown potential for decreasing hospital mortality due to sepsis.[8] Evidence based practice and community campaigns to increase vaccination rates, prevent infection, and raise awareness of sepsis symptoms all have the potential to positively impact the health of the NGMC communities.

In every NGMC communities, septicemia was identified as a health need. According to the Georgia Department of Health, eight counties in the NGMC overall community have higher sepsis discharge rates than the Georgia benchmark of 372.4 per 100,000. Lumpkin, Stephens, and Banks counties have much higher discharge rates than the state benchmark.[9] Stephens County also has a death rate from septicemia of 18.3 per 100,000 which is higher than the state value of 15.3 per 100,000.[10]

[3] Centers for Disease Control and Prevention, Sepsis Fact Sheet, 2016
[4] Centers for Disease Control and Prevention, Sepsis Fact Sheet, 2016
[5] Centers for Disease Control and Prevention, Sepsis Fact Sheet, 2016
[6] National Center for Health Statistics Data Brief No. 62, June 2011
[7] National Center for Health Statistics Data Brief No. 62, June 2011
[8] National Center for Health Statistics Data Brief No. 62, June 2011
[9] Georgia Department of Public Health, septicemia age-adjusted discharge rate, 2014
[10] Georgia Department of Public Health, septicemia age-adjusted death rate, 2013-2015



Source: Georgia Dept Public Health, 2014

Access to Care

Access to healthcare is measured by an individual's ability to utilize healthcare services and the available goods or services required to support healthy lifestyles. This encompasses insurance coverage, the availability of healthcare providers, inpatient and outpatient care, and specialty medical services. Supporting healthy lifestyles requires access to healthy food options, community education, prevention initiatives, and the ability to participate in physical activity. Focus group participants identified a range of access challenges in each of the communities that include financial barriers, language barriers, and gaps in provider availability.

Twenty-seven percent of children in Georgia live in poverty and 19% of individuals are living below the poverty level.[11] The PSA, SSA 400, and SSA North communities exceed poverty benchmarks. Rabun and Stephens counties in the SSA North community have negative data for almost every socioeconomic indicator: higher percentage of high school dropouts, lower levels of college education, more children in poverty, more families with

[11] U.S. Census Small Area Income and Poverty Estimates, 2013 percentage of children (under age 18) living in poverty and 2013 individuals living below the poverty level.

children with annual income 150% below the federal threshold, more children eligible for free lunch, and higher unemployment rates.[12] [13] [14] [15] [16] [17]

Income level and employment status have a strong relationship with the ability to secure healthcare coverage for individuals and their families. Twenty-one percent of the population in the state of Georgia is uninsured; the counties that encompass the NGMC service area range from 19% to 28% with at least one county in each of the four communities exceeding the state benchmark.[18] Access to healthcare coverage is especially important for children and according to the U.S. Census, 10% of Georgia's children are uninsured despite the availability of PeachCare for Kids (insurance for lower income families with uninsured children). All counties in the NGMC community except Stephens County exceed the state benchmark for percentage of uninsured children.[19]

The statistics for insurance coverage do not include "underinsured" residents; those who have health insurance but it does not adequately cover required services. Lack of adequate insurance coverage was a common theme in the community input sessions with many of the participants commenting on how despite having insurance many underinsured residents still avoid seeking care due to high deductibles and other "out-of-pocket" costs. Insurance coverage is important to ensuring access to care because individuals without coverage (or adequate coverage) will often delay care in face of other financial priorities. High health care costs compound the issue: five counties in the community have higher health care costs than the state benchmark.[20] Although not available for every county, we know that when compared to the state, a greater proportion of residents have avoided seeing a doctor due to cost in Jackson, Habersham and White counties.[21]

The focus group discussed insufficient provider availability in every market, and this is confirmed by the data. Participants frequently noted an undersupply of primary care physicians, and believed the gap to be even larger for specialty services like obstetrics, geriatric care, and mental health. Participants believe that residents who can't access primary care may shift to using urgent care clinics: this adversely impacts overall patient care due to challenges with coordinating care, ensuring adequate follow-up care, and maintaining continuity of care. The ratio of population to physicians is a measure used to

[12]Georgia Family Partnership, 2010-2014 percent of youth ages 16-19 who are not enrolled in school and not high school graduates

[13] U.S. Census American Community Survey 2009-2013 percentage of adults age 25-44 with some post-secondary education

[14] U.S. Census Small Area Income and Poverty Estimates, 2013 percentage of children (under age 18) living in poverty

[15] Georgia Family Partnership, 2010-2014 percent of families w/ related children under 18 with income less than 150% of federal poverty threshold

[16] National Center for Education Statistics, 2013 percent of total students eligible to participate in the National School Lunch Program under the Free Lunch Act

[17] U.S. Bureau of Labor Statistics, 2014 percent of population age 16+ reporting unemployed or looking for work

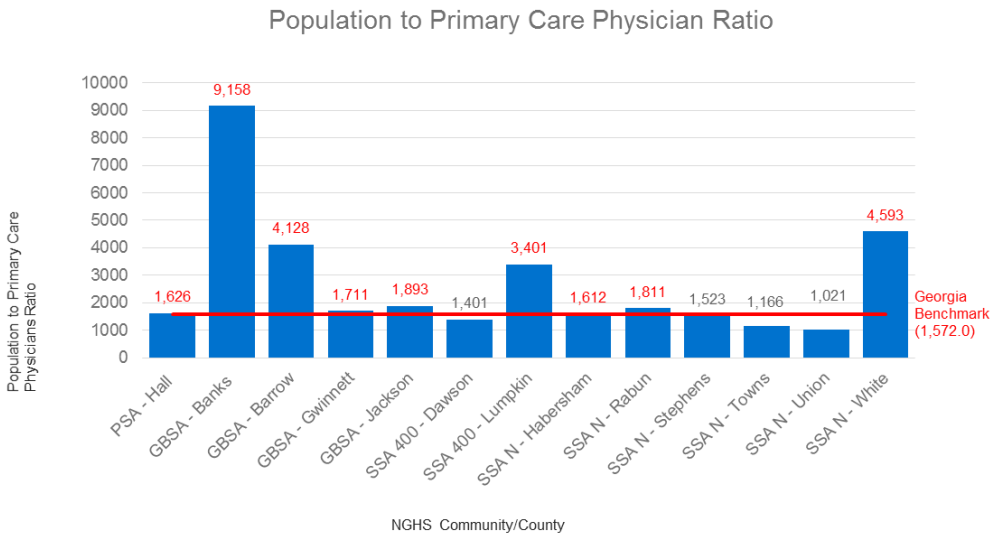
[18] U.S. Census Small Area Health Insurance Estimates, 2012 percentage of people under age 65 without insurance

[19] U.S. Census Small Area Health Insurance Estimates, 2012 percentage of the population under age 19 that has no health insurance coverage

[20] Dartmouth Atlas of Health Care, 2013 price-adjusted Medicare reimbursements (Parts A and B) per enrollee

[21] Behavioral Risk Factor Surveillance System (BRFSS), 2006-2012, Percent of adults 18+ who needed to see a doctor but could not because of cost (age-adjusted)

evaluate adequate access to providers. Each of the four communities include one of the nine counties that have a population to primary care provider ratio which is unfavorable when compared to the state benchmark.[22]



Source: HRSA Area Health Resource File/American Medical Association, 2012

Primary care physician extenders (e.g. nurse practitioners, physician assistants, and clinical nurse specialists) can help close the gap in access to primary care services when available in a community. Availability of these providers is also limited in each of the communities with the exception of the PSA.[23]

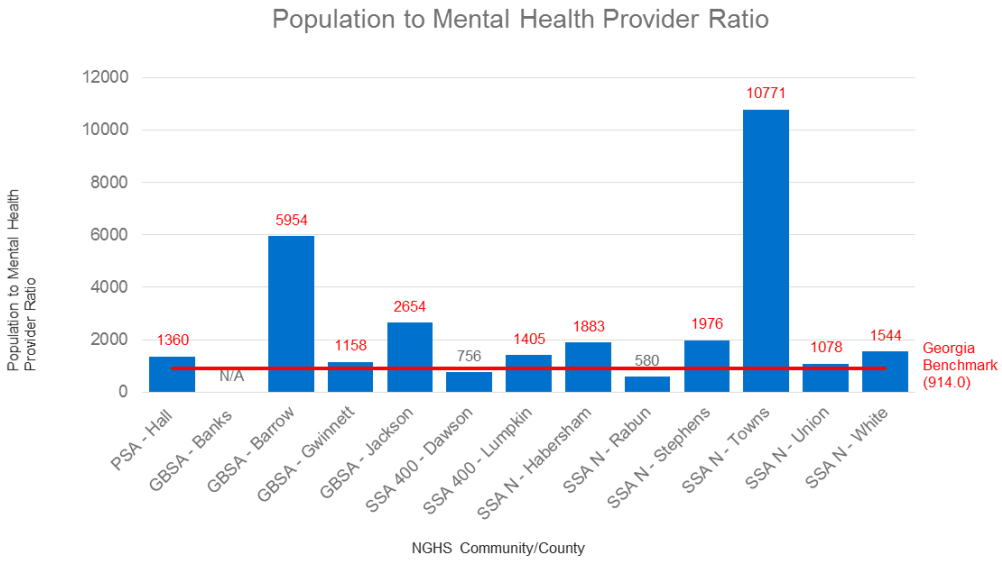
Emergency department (ED) visit rates are higher than the state benchmark for at least one county in each of the GBSA, SSA 400 and SSA North.[24] Truven Health estimates that 46-50% of 2014 ED visits in the NGMC community were non-emergent.[25] Non-emergent visits are lower acuity cases that present in the ED but possibly can be treated in other more appropriate, less intensive outpatient settings. Non-emergent ED visits can be an indication that there are systematic issues with access to primary care or managing chronic conditions.

Inadequate number of mental health practitioners and treatment facilities were consistently a concern for the focus groups in each community. The focus group participants believe local mental health and substance abuse services are understaffed and underfunded, which mirror the statewide mental health system issues. With the exception of Gwinnett and Towns counties, mental and behavioral hospitalizations for

[22] Area Health Resource File/American Medical Association, 2012 ratio of population to one primary care physician
[23] CMS, National Provider Identification File, 2015 ratio of population to one non-physician primary care provider
[24] Georgia Department of Public Health, 2014 de-duplicated ER visit rate by residence (age-adjusted)
[25] Truven Health Analytics, 2014 Emergency Department Estimates

residents in the NGMC community are up to 40% higher than the Georgia state benchmark for the remaining counties.[26]

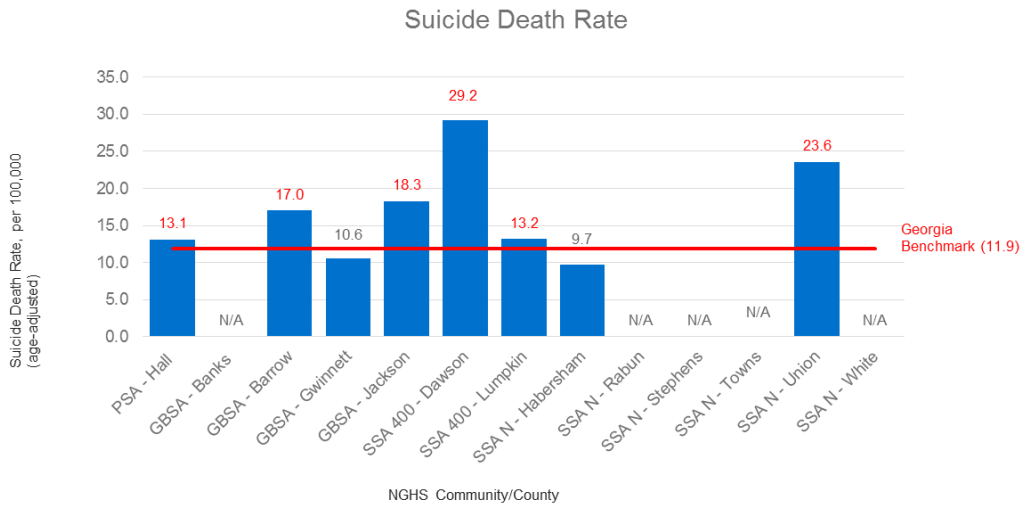
There were also geographic-specific issues: SSA North focus group participants identified counseling services as the biggest gap. Comprehensive mental health services require the availability of quality local treatment, including treatment options for residents seeking preventive care, acute care, and follow-up care. Participant input in each of the communities included comments about lack of mental health providers locally. This was demonstrated in the data as well; ten counties have higher population to mental health provider ratios than the state benchmark.[27]



Source: CMS National Provider Identification File, 2014

There are a number of indicators that can point to mental and behavioral health issues in a community but probably one of the most troubling is suicide. Suicide rates are not available for every county in the NGMC service area, but at least one county in each of the four communities has a suicide rate that is greater than the state of Georgia's rate. In fact, the Dawson and Union county rates are particularly concerning at more than twice that of the state benchmark.[28] Due to reporting restrictions, it is difficult to understand the distribution of suicide deaths by age and county. However, we do know from Georgia's Youth Risk Behavior Survey that 8.8% of Georgia High School students have attempted suicide. Hispanic high school students are more likely to have attempted suicide than their African-American or white counterparts.[29]

[26] Georgia Department of Public Health, 2014 discharge rate for mental and behavioral disorders per 100,000 (age-adjusted)
[27] CMS National Provider Identification file, 2014 population to one mental health provider ratio
[28] CDC National Vital Statistics System –Mortality, 2010-2014 number of deaths due to suicide (age-adjusted)
[29] Georgia Department of Public Health Youth Risk Behavior Survey, 2013 percentage of students who actually attempted suicide one or more times during the past 12 months



Source: National Vital Statistics System (CDC/NCHS), 2010-2014

Percentage of Georgia Students Who've Attempted Suicide One or More Times in Past 12 Months

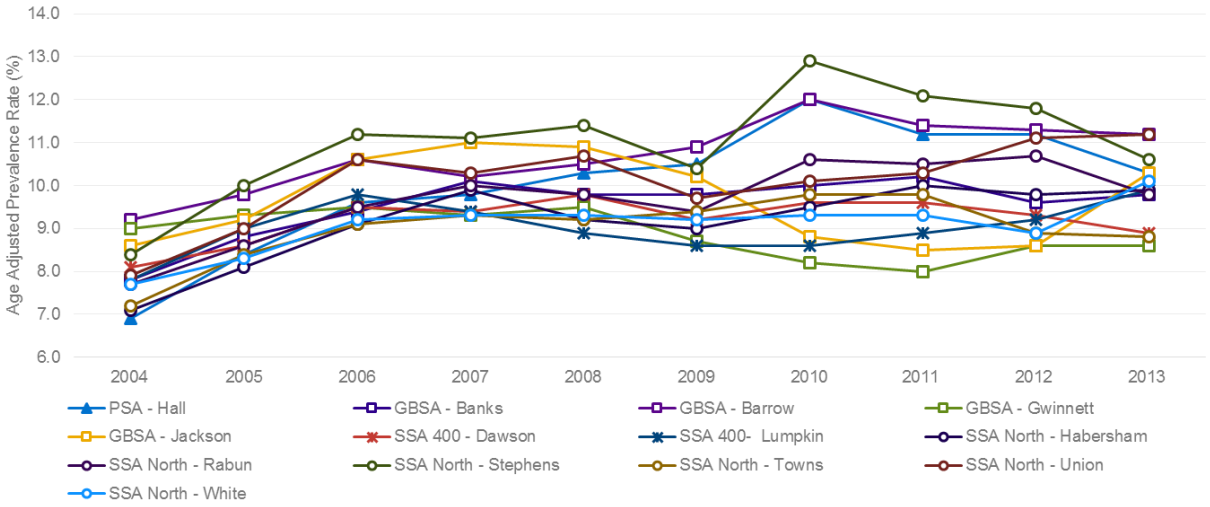
High School		Middle School	
Total	**8.8%**	**Total**	**7.5%**
12th Grade	9.6%	8th Grade	8.9%
11th Grade	7.7%	7th Grade	7.2%
10th Grade	8.7%	6th Grade	6.4%
9th Grade	8.6%		
African-American	9.0%	African-American	9.1%
Hispanic/Latino	16.0%	Hispanic/Latino	7.8%
White	5.3%	White	5.7%

Source: Georgia Department of Public Health Youth Risk Behavior Survey, 2013

Diabetes

In 2013, diabetes was the country's seventh leading cause of death. More than 29 million people, or 9.3% of the U.S. population, are estimated to have diagnosed or undiagnosed diabetes.[30] If current trends continue, 1 out of every 3 adults in the United States could have diabetes by 2050.[31] Diabetics are at increased risks of cardiovascular disease, kidney damage, nerve damage, and eye damage. According to the CDC Diabetes Interactive Atlas, 11.4% of adults in the state of Georgia report being diagnosed with non-pregnancy related diabetes, higher than the percentage of adults nationally (10.0%). In the NGMC community, five of the six counties in the SSA North community have higher rates of diabetes prevalence than the state benchmark.[32] Diabetes prevalence in the NGMC community is mirroring the national trend of increasing over time with the exception of Gwinnett County, which has remained fairly stable.[33]

Diabetes Prevalence Trend
2004 - 2013



Source: CDC Diabetes Interactive Atlas, 2016

Several communities also exceed the state benchmark for other indicators related to diabetes. Dawson County in the SSA 400 and Stephens and Towns counties in the SSA North all have higher diabetes death rates for their residents. GBSA residents have higher death rates from diabetes in Barrow County and higher diabetes discharge rates in Banks County.[34] Hospitalizations and deaths related to diabetes may indicate issues with care management within the community. The prevalence and management of diabetes was an issue raised during the key informant interviews and focus groups in each of the NGMC communities. Participants believed that initiatives to assist diabetic patients with

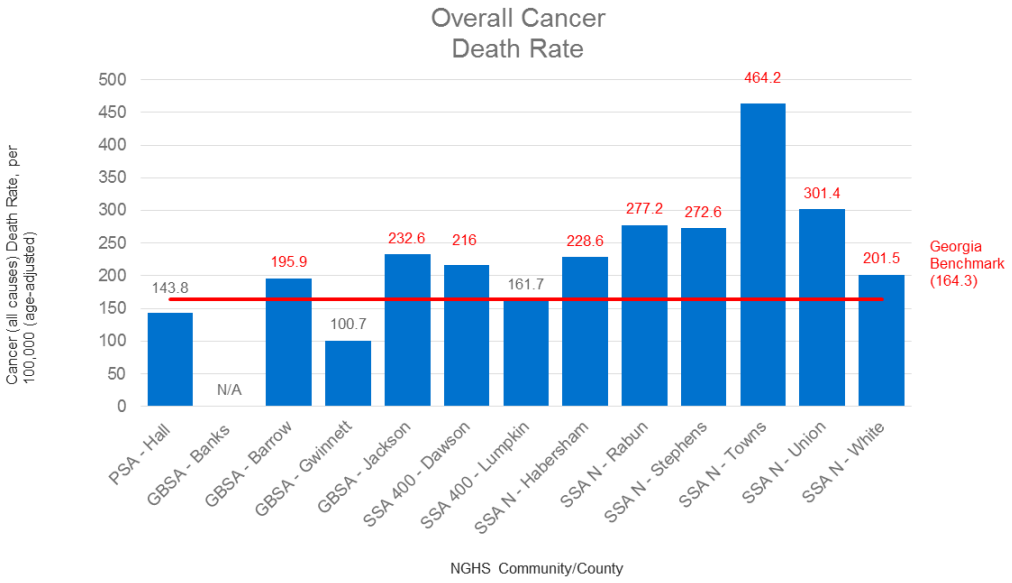
[30]CDC Newsroom, "Now, 2 Out of Every 5 Americans Expected to Develop Type 2 Diabetes During Their Lifetime", 2015
[31] CDC Diabetes 2014 Report Card
[32] CDC Diabetes Interactive Atlas, 2012 percentage of adults reporting diagnosed with diabetes (non-pregnancy related)
[33] CDC Diabetes Interactive Atlas, 2004-2013 diagnosed diabetes prevalence (age-adjusted)
[34] Georgia Department of Public Health, 2014, death rate for endocrine nutritional and metabolic diseases (diabetes) per 100,000 (age-adjusted)

management of their condition, compliance with necessary lifestyle changes and improvements in coordinated follow-up care will reduce complications, disability and mortality associated with the condition**.** Diabetes prevention education and increasing care management for the diabetic residents were considered important initiatives for the community. Additionally, each of the community focus groups identified healthcare services for diabetic and pre-diabetic residents as a top health need in the community.

Cancer

Cancer is the second leading cause of death in the United States.[35] The national rate of new cancer diagnosis is 453.8 per 100,000, exceeded by the State of Georgia rate of 461.1 per 100,000. The prevalence of cancer has made it a top health concern for communities across the United States, including three of the NGMC communities. The GBSA, SSA 400, and SSA North communities have incidence and death rates that exceed state benchmarks by greater than 20%. Cancer indicators for the PSA do not flag it as a significant health need when compared to other needs identified.

Ten of the 13 counties in the overall NGMC community have cancer incidence rates higher than the state benchmark.[36] Nine of the counties have overall cancer death rates higher than the Georgia state average.[37]



Source: National Vital Statistics System (CDC/NCHS), 2013

Specific cancer type priorities by community were determined based on incidence rates that were higher than the state benchmark by 20% for one or more of the included counties.

[35] CDC Statistics for Different Types of Cancer, 2016
[36] National Cancer Institute 2008-2012, Incidence rate of all cancer types per 100,000 (age-adjusted); CMS Chronic Condition Warehouse, 2013 percent of Medicare beneficiaries with cancer
[37] CDC National Center for Health Statistics, National Vital Statistics System – Mortality, 2013 cancer (all causes) death rate per 100,000 age adjusted.

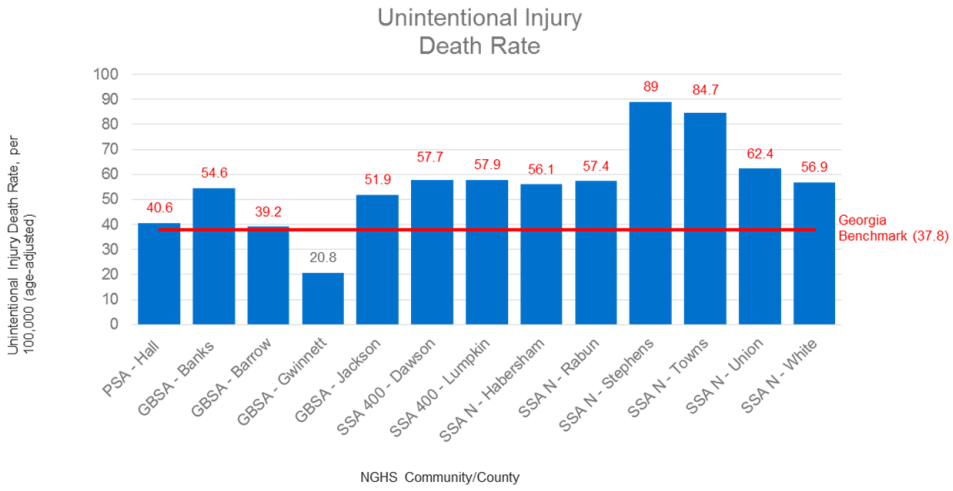
Cancer Priorities by Type and Community

NGMC Community	Overall Cancer Death Rate	Colon Cancer Incidence	Lung Cancer Incidence	Prostate Cancer Incidence
GBSA	X	X	X	
SSA 400	X		X	
SSA North	X	X		X

Injury

Violence and injuries are a significant burden on public health in America. In 2014, more than 27 million Americans needed emergency medical treatment due to violence and injury.[38] The Georgia Department of Health reports that approximately 5,600 Georgians die from injuries each year.[39] External causes of injury include accidents and injuries caused by motor vehicle crashes, falls, accidental shootings, drowning, fire and smoke exposure, poisoning, suffocation, other unintentional causes as well as intentional causes such as suicide and homicide. The commonality between these injuries is that they are all preventable. Rates of injuries, and the resulting death rates, can be improved with the implementation of community education and prevention initiatives.

The rate of deaths attributed to unintentional injury such as falls and motor vehicle accidents are higher than the State of Georgia (37.8 per 100,000) in twelve of thirteen NGMC counties.[40]

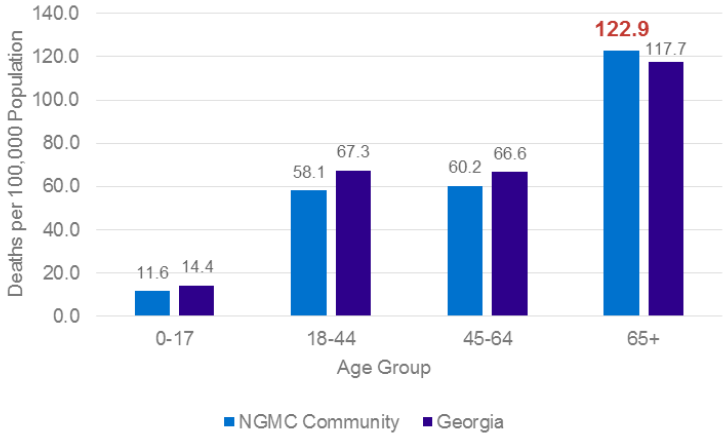


Source: National Vital Statistics System (CDC/NCHS), 2011-2013

[38] Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS) [online], 2011
[39] Georgia Department of Public Health Injury Prevention Strategic Plan, Georgia 2016 - 2018
[40] CDC National Vital Statistics System, 2011 - 2013

Injury deaths also impact the senior population at a greater rate in the overall NGMC community; injury death rate for the age 65+ population is 122.9 per 100,000 population compared to overall Georgia value of 117.7 for the same age group.[41]

Injury Death Rate by Age in NGMC Overall Community Served



Source: Georgia Department of Public Health, 2015

Across the four NGMC communities the most common causes for injury related deaths and injury related hospitalizations are suicide, motor vehicle crashes, poisoning and falls.

NGMC Total Community
Most Common Causes of Injury Related Deaths and Discharges

Deaths	Suicide	Motor Vehicle Crash	Poisoning	Falls
Discharges	Falls	Motor Vehicle Crash	Poisoning	Suicide

Source: Georgia Department of Public Health, 2014

Community input sessions mentioned the rate of suicide as a concern and each of the four NGMC communities experience suicide death rates that are greater than the state benchmark of 34.7 per 100,000 population.[42] Community input around suicide prevention included availability of mental health providers and services throughout the community and is described under the need for access to care earlier in this report.

Injuries related to falls were also a concern. The focus group reported an increase in trauma due to falls, particularly in the aging population. In fact, the GBSA, SSA 400 and SSA North communities have discharge rates due to falls that are higher than the state

[41] Georgia Department of Public Health, injury death rate by age group, 2015
[42] Georgia Department of Public Health, age-adjusted suicide death rate by residence, 2014

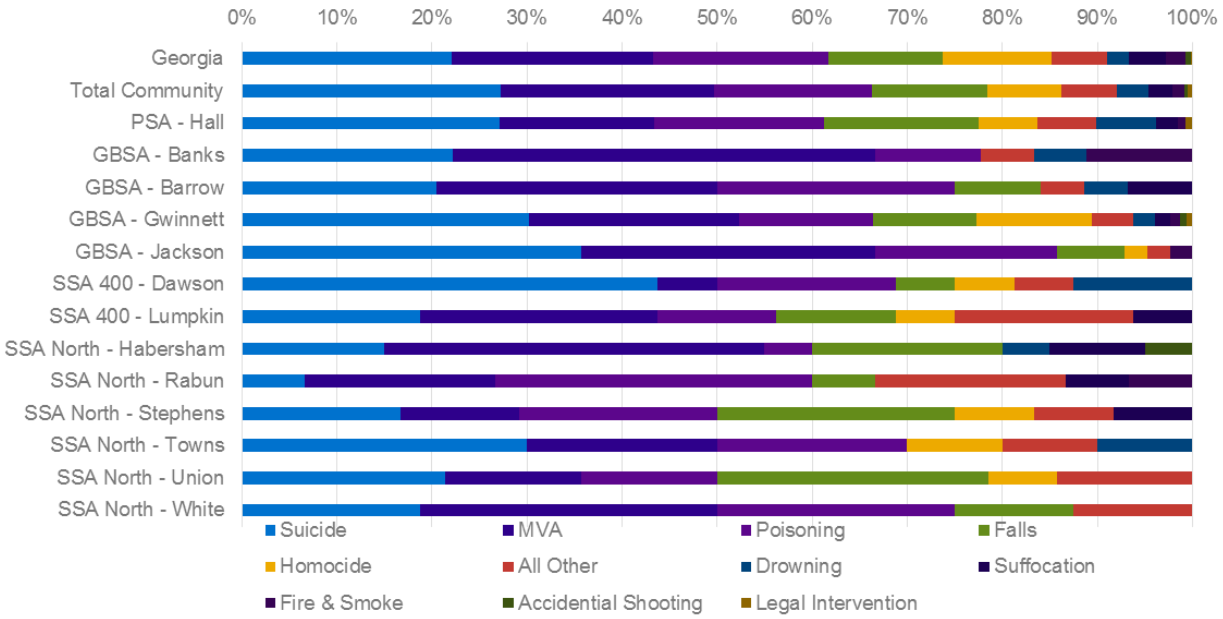
rate and all four communities have death rates that are higher.[43] Community input participants suggested increasing outreach around fall prevention.

The high proportion of deaths and discharges related to motor vehicle crashes was not a surprise to those who participated in the prioritization of community health needs. A large portion of the overall NGMC community is rural with a fair number of roads that are winding and not well lit at night. This poses an issue not just for residents but the tourists who visit the area to participate in the recreation options available. All NGMC communities experience motor vehicle crash death and/or related discharge rates that are above those rates for the state of Georgia.[44]

Giving the availability of water based recreation in the NGMC community, focus group participants identified drowning deaths as a community concern. In fact, the combined NGMC community has a higher death rate due to drowning than the state of Georgia.[45] Focus group participants believed that minority populations were at the greatest risk and that initiatives promoting drowning prevention should be implemented. Injuries by poisoning were not specifically raised in community input sessions but are contributing to the overall community injury deaths and related hospitalizations.

Community input participants believe the community's rate of accidents and injuries can be improved with the implementation of community education and prevention initiatives. These programs should address the behaviors and environments that make a community prone to accidents and violence.

Proportion of Total Injury Deaths by Cause



Source: Georgia Department of Public Health, 2014

[43] Georgia Department of Public Health, discharges due to falls, age-adjusted rate by residence, 2014 and age-adjusted rate of deaths attributed to falls by residence, 2014
[44] Georgia Department of Public Health, age-adjusted rate of motor vehicle crash deaths by residence, 2014 and age-adjusted discharges attributed to motor vehicle crashes, 2014 and CDC National Vital Statistics System, 2009-2013
[45] Georgia Department of Public Health, age-adjusted drowning death rate by residence, 2014

Summary

Northeast Georgia Medical Center conducted its Community Health Needs Assessment beginning January 2016 to identify the health needs of the communities they serve. Using both qualitative community feedback as well as publicly available and proprietary health data, Northeast Georgia Medical Center was able to identify and prioritize community health needs for the communities they serve. With the goal of improving the health of the community, implementation plans with specific tactics and time frames will be developed for the health needs NGMC has chosen to address for the communities they serve. For more information about this report, contact Christy Moore, Manager of Community Health Improvement at Northeast Georgia Medical Center at (770) 219-8099.

Appendix A: Community Served Definition

NGMC CHNA Community	Dominant County	ZIP	Post Office Name
PSA	Hall County, GA	30501	Gainesville
PSA	Hall County, GA	30503	Gainesville
PSA	Hall County, GA	30504	Gainesville
PSA	Hall County, GA	30506	Gainesville
PSA	Hall County, GA	30507	Gainesville
PSA	Hall County, GA	30527	Clermont
PSA	Hall County, GA	30543	Gillsville
PSA	Hall County, GA	30554	Lula
PSA	Hall County, GA	30564	Murrayville
GBSA	Banks County, GA	30530	Commerce
GBSA	Banks County, GA	30547	Homer
GBSA	Barrow County, GA	30011	Auburn
GBSA	Barrow County, GA	30620	Bethlehem
GBSA	Barrow County, GA	30666	Statham
GBSA	Barrow County, GA	30680	Winder
GBSA	Gwinnett County, GA	30019	Dacula
GBSA	Gwinnett County, GA	30515	Buford
GBSA	Gwinnett County, GA	30518	Buford
GBSA	Gwinnett County, GA	30519	Buford
GBSA	Hall County, GA	30502	Chestnut Mountain
GBSA	Hall County, GA	30542	Flowery Branch
GBSA	Hall County, GA	30566	Oakwood
GBSA	Jackson County, GA	30517	Braselton
GBSA	Jackson County, GA	30529	Commerce
GBSA	Jackson County, GA	30548	Hoschton
GBSA	Jackson County, GA	30549	Jefferson
GBSA	Jackson County, GA	30558	Maysville
GBSA	Jackson County, GA	30565	Nicholson
GBSA	Jackson County, GA	30567	Pendergrass
GBSA	Jackson County, GA	30575	Talmo
GBSA	Jackson County, GA	30599	Commerce

NGMC CHNA Community	Dominant County	ZIP	Post Office Name
SSA 400	Dawson County, GA	30534	Dawsonville
SSA 400	Lumpkin County, GA	30533	Dahlonega
SSA 400	Lumpkin County, GA	30597	Dahlonega
SSA North	Banks County, GA	30511	Baldwin
SSA North	Habersham County, GA	30510	Alto
SSA North	Habersham County, GA	30523	Clarkesville
SSA North	Habersham County, GA	30531	Cornelia
SSA North	Habersham County, GA	30535	Demorest
SSA North	Habersham County, GA	30563	Mount Airy
SSA North	Habersham County, GA	30580	Turnerville
SSA North	Rabun County, GA	30525	Clayton
SSA North	Rabun County, GA	30537	Dillard
SSA North	Rabun County, GA	30552	Lakemont
SSA North	Rabun County, GA	30562	Mountain City
SSA North	Rabun County, GA	30568	Rabun Gap
SSA North	Rabun County, GA	30573	Tallulah Falls
SSA North	Rabun County, GA	30576	Tiger
SSA North	Rabun County, GA	30581	Wiley
SSA North	Stephens County, GA	30538	Eastanollee
SSA North	Stephens County, GA	30557	Martin
SSA North	Stephens County, GA	30577	Toccoa
SSA North	Stephens County, GA	30598	Toccoa Falls
SSA North	Towns County, GA	30546	Hiawassee
SSA North	Towns County, GA	30582	Young Harris
SSA North	Union County, GA	30512	Blairsville
SSA North	Union County, GA	30514	Blairsville
SSA North	Union County, GA	30572	Suches
SSA North	White County, GA	30528	Cleveland
SSA North	White County, GA	30545	Helen
SSA North	White County, GA	30571	Sautee Nacoochee

Appendix B: Key Health Indicator Sources

Indicator Category	Indicator	Source
POPULATION	Residential segregation - non-white/white (index)	U.S.Census, American Community Survey, 2010-2014
POPULATION	High School Graduation Rate	County Health Rankings; data.gov, supplemented w/ National Center for Education Statistics 2011-2012
POPULATION	High School Dropouts (Percent)	KidsCount: Georgia Family Partnership (2010-2014)
POPULATION	Some College	County Health Rankings; American Community Survey 2009-2013
POPULATION	Births to Unmarried Women	Health Indicator Warehouse; NVSS-N (CDC/NCHS) 2013
POPULATION	Births to Unmarried Women	Georgia Department of Public Health, Office of Health Indicators for Planning 2014
POPULATION	Children in Poverty	County Health Rankings; Small Area Income and Poverty Estimates 2013
POPULATION	Children in Single-parent Households	County Health Rankings; American Community Survey 2009-2013
POPULATION	Medican Household Income	U.S Census, Small Area Income and Poverty Estimates 2014
POPULATION	Individuals Living Below Poverty Level	Health Indicator Warehouse; SAIPE (Census) 2013
POPULATION	All people in poverty	US Dept of Agriculture Economic Research Service: US Census Bureau 2014
POPULATION	Children ages 0-17 in poverty	US Dept of Agriculture Economic Research Service: US Census Bureau 2014
POPULATION	Families with children with annual incomes of less than 150% of the Federal Poverty Threshold	KidsCount: Georgia Family Connection Partnership 2010-2014
POPULATION	Children Eligible for Free Lunch	Health Indicator Warehouse; CCD (ED/NCES) 2013
POPULATION	Percent of Households w/ a a disability	Local Disability Data for Planners, 2005-2007
POPULATION	Percent Unemployed	Health Indicator Warehouse; LAUS (DOL/BLS) 2014
POPULATION	Unemployment Rate	County Health Rankings; Bureau of Labor Statistics 2013
POPULATION	Violent Crime Rate	County Health Rankings; Uniform Crime Reporting - FBI 2010-2012
POPULATION	Homicides	CDC WONDER mortality data, 2014
POPULATION	Unduplicated Count/1,000 Of Children With A Substantiated Incident Of Child Abuse And/Or Neglect	KidsCount: Georgia Family Partnership 2014
HEALTH OUTCOMES	Poor or Fair Health	County Health Rankings; Behavioral Risk Factor Surveillance System 2006-2012
HEALTH OUTCOMES	General Health Fair or Poor (Age-adjusted)	Health Indicator Warehouse; BRFSS 2006-2012
HEALTH OUTCOMES	Average Number of Unhealthy Days in Past Month (Age- Adjusted)	Health Indicator Warehouse; BRFSS 2006-2012
HEALTH OUTCOMES	Physically Unhealthy Days	County Health Rankings; Behavioral Risk Factor Surveillance System 2014
HEALTH OUTCOMES	Diseases of the Musculoskeletal System and Connective Tissue	Georgia Dept Public Health 2014
HEALTH OUTCOMES	All Other Mental and Behavioral Disorders	Georgia Dept Public Health 2014
HEALTH OUTCOMES	Major cardiovascular diseases	Georgia Dept Public Health 2014
HEALTH OUTCOMES	Blood Poisoning (Septicemia)	Georgia Dept Public Health 2014
HEALTH OUTCOMES	Pneumonia	Georgia Dept Public Health 2014
HEALTH OUTCOMES	All Other Diseases of the Genitourinary System	Georgia Dept Public Health 2014
HEALTH OUTCOMES	Falls	Georgia Dept Public Health 2014
HEALTH OUTCOMES	External Cause of Injury (all)	Georgia Dept Public Health 2014
HEALTH OUTCOMES	All other Endocrine, Nutritional and Metabolic Diseases	Georgia Dept Public Health 2014
HEALTH OUTCOMES	Cancer (all causes) Incidence	Georgia Dept Public Health 2009-2013
HEALTH OUTCOMES	Breast Cancer Incidence (Medicare)	Health Indicator Warehouse; CCW (CMS) 2013
HEALTH OUTCOMES	Colon Cancer Incidence (Medicare)	Health Indicator Warehouse; CCW (CMS) 2013
HEALTH OUTCOMES	Lung Cancer Incidence (Medicare)	Health Indicator Warehouse; CCW (CMS) 2013
HEALTH OUTCOMES	Cancer (all causes) Incidence	National Cancer Institute 2008-2012
HEALTH OUTCOMES	Breast Cancer Incidence	National Cancer Institute 2008-2012
HEALTH OUTCOMES	Colon Cancer Incidence	National Cancer Institute 2008-2012
HEALTH OUTCOMES	Lung Cancer Incidence	National Cancer Institute 2008-2012
HEALTH OUTCOMES	Prostate Cancer Incidence	National Cancer Institute 2008-2012
HEALTH OUTCOMES	Adults Reporting Diagnosed with Diabetes	Health Indicator Warehouse; BRFSS 2006-2012
HEALTH OUTCOMES	Diabetes	CDC Diabetes Interactive Atlas 2012
HEALTH OUTCOMES	Adults Reporting Diagnosed with Hypertension	Health Indicator Warehouse; BRFSS 2006-2013
HEALTH OUTCOMES	Heart Disease	CMS Chronic Condition Warehouse (CCW) 2013
HEALTH OUTCOMES	Medicare beneficiaries who have had a stroke	Health Indicator Warehouse; CCW (CMS) 2013
HEALTH OUTCOMES	Alzheimer's Disease/Dementia	CMS Chronic Condition Warehouse (CCW) 2013
HEALTH OUTCOMES	Asthma Medicare beneficiaries (percent)	Health Indicator Warehouse; CCW 2013
HEALTH OUTCOMES	Older Adult Asthma	CDC: Medicare Chronic Conditions Report, Center of Medicare and Medicaid Services 2012

Key Health Indicator Sources (cont)

Indicator Category	Indicator	Source
HEALTH OUTCOMES	Arthritis	Health Indicator Warehouse; CCW 2013
HEALTH OUTCOMES	Smoking during Pregnancy	Georgia Dept Public Health 2014
HEALTH OUTCOMES	Births to Mothers with less than 12 years of education	KidsCount: Georgia Family Partnership 2014
HEALTH OUTCOMES	Births to Mothers with high school graduation	KidsCount: Georgia Family Partnership 2014
HEALTH OUTCOMES	Low Birth Weight	County Health Rankings; National Center for Health Statistics - Natality files 2006-2012
HEALTH OUTCOMES	Very Low Birth Weight	Health Indicator Warehouse; NVSS-M (CDC/NCHS) 2013
HEALTH OUTCOMES	Preterm Births	Health Indicator Warehouse; NVSS-M (CDC/NCHS) 2011-2013
INJURY & DEATH	Heart Disease Death Rate	Health Indicator Warehouse; NVSS-M (CDC/NCHS) 2013
INJURY & DEATH	Overall Cancer Death Rate	Health Indicator Warehouse; NVSS (CDC/NCHS) 2013
INJURY & DEATH	Chronic Lower Respiratory Disease (CLRD) Death Rate	Health Indicator Warehouse; NVSS (CDC/NCHS) 2013
INJURY & DEATH	Stroke Death Rate	Health Indicator Warehouse; NVSS (CDC/NCHS) 2013
INJURY & DEATH	Unintentional Injury Death Rate	Health Indicator Warehouse; NVSS (CDC/NCHS) 2011-2013
INJURY & DEATH	Major cardiovascular deaths	Georgia Dept Public Health 2014
INJURY & DEATH	All Other Mental and Behavioral Disorder deaths	Georgia Dept Public Health 2014
INJURY & DEATH	All Cancer deaths	Georgia Dept Public Health 2014
INJURY & DEATH	COPD deaths	Georgia Dept Public Health 2014
INJURY & DEATH	Diabetes deaths	Georgia Dept Public Health 2014
INJURY & DEATH	Premature Death	County Health Rankings; National Center for Health Statistics - Mortality files 2010-2012
INJURY & DEATH	Premature Death	Georgia Dept Public Health 2014
INJURY & DEATH	Fatal Injuries	County Health Rankings; 'CDC WONDER mortality data 2008-2012
INJURY & DEATH	Injury Deaths	Health Indicator Warehouse; NVSS (CDC/NCHS) 2013
INJURY & DEATH	Motor Vehicle Crash Mortality Rate	Health Indicator Warehouse; NVSS (CDC/NCHS) 2009-2013
INJURY & DEATH	Motor Vehicle Crash Mortality Rate	CDC WONDER mortality data 2007-2013
INJURY & DEATH	Alcohol-impaired driving deaths	Fatality Analysis Reporting System 2014
INJURY & DEATH	Drug overdose deaths	CDC WONDER mortality data 2012-2014
INJURY & DEATH	Injury Deaths	CDC WONDER mortality data 2009-2013
INJURY & DEATH	Child Mortality	CDC WONDER mortality data 2010-2013
INJURY & DEATH	Infant Mortality	Georgia Dept Public Health 2014
HEALTH BEHAVIORS	Adult Obesity	County Health Rankings; CDC Diabetes Interactive Atlas 2011
HEALTH BEHAVIORS	Physical Inactivity	County Health Rankings; CDC Diabetes Interactive Atlas 2011
HEALTH BEHAVIORS	No Exercise	Health Indicator Warehouse; BRFSS (CDC/PHSIPO) 2006-2012
HEALTH BEHAVIORS	Insufficient sleep	Behavioral Risk Factor Surveillance System (BRFSS) 2014
HEALTH BEHAVIORS	Adult Smoking	County Health Rankings; Behavioral Risk Factor Surveillance System 2006-2012
HEALTH BEHAVIORS	Adults Engaging in Binge Drinking During the Past 30 Days	Health Indicator Warehouse; BRFSS (CDC/PHSIPO) 2006-2012
HEALTH BEHAVIORS	Excessive Drinking	County Health Rankings; Behavioral Risk Factor Surveillance System 2006-2012
HEALTH BEHAVIORS	Illicit Drug Use - past month	SAMHSA, Results from the 2013 National Survey on Drug Use and Health: Detailed Tables (NSDUH-DetTabs) 2013 .
HEALTH BEHAVIORS	Marijuana Use	SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2013 and 2014.
HEALTH BEHAVIORS	Teen Birth Rate	County Health Rankings; National Center for Health Statistics - Natality files 2006-2012
HEALTH BEHAVIORS	Teen Births Rate	Georgia Dept Public Health 2014
HEALTH BEHAVIORS	HIV Prevalence	Health Indicator Warehouse; NHSS (CDC/NCHHSTP) 2012
HEALTH BEHAVIORS	STD Incidence for Youth, Ages 15-19	KidsCount: Georgia Family Partnership 2014
HEALTH BEHAVIORS	Sexually Transmitted Infection Incidence Rate	Georgia Dept Public Health 2014
HEALTH BEHAVIORS	Chlamydia Incidence Rate	National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention 2013
MENTAL HEALTH	Population to Mental Health Provider Ratio	County Health Rankings; CMS, National Provider Identification file 2014
MENTAL HEALTH	Poor Mental Health Days	County Health Rankings; Behavioral Risk Factor Surveillance System 2006-2012
MENTAL HEALTH	Suicide Rate	Health Indicator Warehouse; NVSS-M(CDC/NCHS) 2010-2014
MENTAL HEALTH	Lack of Social and Emotional Support	Health Indicator Warehouse; BRFSS (CDC/PHSIPO) 2006-2012
ACCESS TO CARE	Percent Uninsured	County Health Rankings; Small Area Health Insurance Estimates 2012
ACCESS TO CARE	Percentage of children under age 19 (0-18) without health insurance	KidsCount: Georgia Family Partnership 2010-2014
ACCESS TO CARE	Uninsured Children	U.S. Census, Small Area Health Insurance Estimates 2013
ACCESS TO CARE	Health Care Costs	Dartmouth Atlas of Health Care 2013

Key Health Indicator Sources (cont)

Indicator Category	Indicator	Source
ACCESS TO CARE	Delayed Care due to Cost	Behavioral Risk Factor Surveillance System (BRFSS) (CDC/PHSIPO) 2006-2012
ACCESS TO CARE	Primary Care Physicians per 100,000 Population	County Health Rankings; Area Health Resource File/American Medical Association 2012
ACCESS TO CARE	Population to Primary Care Physician Ratio	County Health Rankings; Area Health Resource File/American Medical Association 2012
ACCESS TO CARE	Population to Primary Care Providers (non-physician)	CMS, National Provider Identification file 2015
ACCESS TO CARE	Dentists per 100,000 Population	County Health Rankings; Area Health Resource File/National Provider Identification file 2013
ACCESS TO CARE	Population to Dentist Ratio	County Health Rankings; Area Health Resource File/National Provider Identification file 2013
ACCESS TO CARE	Preventable Hospital Stays	County Health Rankings; Dartmouth Atlas of Health Care 2012
ACCESS TO CARE	Ambulatory Sensitive Discharges for Avoidable Illnesses	Georgia Dept Public Health 2014
ACCESS TO CARE	Ambulatory Sensitive Discharges for Acute Conditions	Georgia Dept Public Health 2014
ACCESS TO CARE	Ambulatory Sensitive Discharges for Chronic Conditions	Georgia Dept Public Health 2014
PREVENTION	Colorectal Screening	Behavioral Risk Factor Surveillance System (BRFSS) (CDC/PHSIPO) 2006-2012
PREVENTION	Diabetic Screening	County Health Rankings; Dartmouth Atlas of Health Care 2012
PREVENTION	Mammography Screening)	County Health Rankings; Dartmouth Atlas of Health Care 2012
PREVENTION	Pap Smear	Health Indicator Warehouse; BRFSS (CDC/PHSIPO) 2006-2012
PREVENTION	Flu Vaccine 65+	Health Indicator Warehouse; BRFSS (CDC/PHSIPO) 2006-2012
PREVENTION	Flu Vaccine 65+ (Age Adjusted)	Health Indicator Warehouse; BRFSS (CDC/PHSIPO) 2006-2012
PREVENTION	Pneumonia Vaccine 65+	Health Indicator Warehouse; BRFSS (CDC/PHSIPO) 2006-2012
ENVIRONMENT	Access to exercise Opportunities	Business Analyst, Delorme map data, ESRI, & US Census Tigerline Files 2010 & 2014
ENVIRONMENT	Food Environment Index	County Health Rankings; USDA Food Environment Atlas, Map the Meal Gap 2012
ENVIRONMENT	Limited Access to Healthy Foods	CDC.gov: CHSI 2012
ENVIRONMENT	Food Insecurity	Feed America, Map the Meal Gap 2013
ENVIRONMENT	Driving Alone to Work	U.S. Census, American Community Survey 2010-2014
ENVIRONMENT	Percent of Occupied Housing Units w/ No Vehicles Available	University of Georgia: US Census Bureau 2008-2012
ENVIRONMENT	Daily Particulate Matter Days	County Health Rankings; 'CDC WONDER Environmental data 2011

Appendix C: Community Resources Identified to Potentially Address Significant Health Needs

United Way Agencies in NGMC Service Area (Jan 2016)

United Way of Northeast Georgia
(Barrow, Clarke, Franklin, Jackson, Madison, Morgan, Oglethorpe and Oconee counties)

One Huntington Rd., Ste. 805 Athens, GA 30606
706-543-5254
www.unitedwaynega.org

Habersham County United Way, Inc.

PO Box 572 Cornelia, GA 30531-0572
706-778-0620
http://unitedwayhabersham.org

United Way of Greater Atlanta
(Serves Gwinnett County in NGMC community)

404-527-7200 or 404-614-1000
http://unitedwayatlanta.org

United Way of Forsyth County, Inc.

PO Box 1350 Cumming, GA 30028-1350
770-781-4110
www.unitedwayforsyth.com

United Way of Hall County, Inc.

PO Box 2656 Gainesville GA 30503-2656
770-536-1121
www.unitedwayhallcounty.org

United Way of White County

PO Box 1288 Cleveland GA 30528-0024
706-348-7067
www.unitedwaywhitecounty.org

Community Partners & Their Missions

American Cancer Society – works to save lives through helping people stay well, get well, finding cures, and fighting against cancer.

American Heart Association – works to build healthier lives, free of cardiovascular diseases and stroke through education and research.

A**rea Agency on Aging (AAA)** – responsible for advocacy for seniors, planning and administration of programs, coordination and monitoring services in the following 13 counties: Banks, Dawson, Forsyth, Franklin, Habersham, Hall, Hart, Lumpkin, Rabun, Stephens, Towns, Union and White.

AVITA – a resource for individuals and families in northeast Georgia experiencing the disabling effects of mental illness, developmental disabilities, and addictive diseases. Their goal is to assist in the development of safe, stable, meaningful lives.

Boy Scouts – provides programs for young people that builds character, trains them in responsibilities of participating citizenship, and develops personal fitness.

Boys &Girls Clubs – seeks to enable all young people, especially those who are most in need, to reach their full potential as productive, caring, responsible citizens.

CenterPoint – serves students and families through mentoring, counseling, prevention, and education.

Challenged Child and Friends – serves children with disabilities and their typical peers through educational, therapeutic, nursing and family counseling services in an integrated environment.

Chamber Healthcare Committee – mission is to be the most fit county by 2030 and serve as a model for high-quality, affordable healthcare for all residents.

District 2 Public Health – The mission of public health is to promote and protect the health of people in Georgia wherever they live, work, and play. District 2 Public Health is made up of the 13 counties in the northeastern most portion of Georgia and includes Banks, Dawson, Forsyth, Franklin, Habersham, Hall, Hart, Lumpkin, Rabun, Stephens, Towns, Union, and White Counties.

Drug Free Coalition of Hall County – seeks to empower the youth and adults of Hall County to choose a drug-free lifestyle by uniting citizens and organizations to reduce substance abuse through community-based education, awareness, and advocacy.

For Her Glory – seeks to preserve the dignity, self-esteem, and sense of well-being of cancer survivors who need wigs, prostheses, mastectomy bras, or other items as a result of chemically induced baldness or a mastectomy; seeks to help restore the quality of life for those cancer survivors who cannot financially secure these products through other resources.

Gateway Domestic Violence Center – through crisis intervention, comprehensive support, and community collaboration, Gateway Domestic Violence Center helps create an environment for clients that offers safe, healthy, self-sufficient growth and violence prevention.

Girl Scouts – helps girls find a safe place to grow and share new experiences, learn to relate to others, develop values, and contribute to society.

Good News Clinics – Good News Clinics provides medical and dental care at no cost for uninsured residents of Hall County who cannot afford to purchase health care services.

Greater Hall Chamber of Commerce – dedicated to supporting an aggressive business environment and making a positive contribution to the community by serving as a resource for information, a voice for business and a valuable link to government.

Hall County Family Connection Network – a collaborative which serves as the local decision-making body, bringing community partners together to develop, implement, and evaluate plans that address the serious challenges facing the children and families in our county. The mission is to identify and monitor areas of community concern and to mobilize the community and its resources in a common effort to develop solutions.

Health Access – provides specialty care referrals, diagnostic tests and treatment for uninsured patients referred by primary care providers, now part of Good news Clinics.

Health Initiative Consortium – group of community healthcare leaders gathering Hall County data on several top health indicators.

Interactive Neighborhood for Kids (INK) – encourages children of all ages to develop their full potential through exciting hands-on learning. Through the exhibits, the museum strives to create a unique environment in which children of all ages, abilities and experience can imagine, create and explore.

March of Dimes – fights to prevent birth defects and the related problems of low-birth weight and infant mortality.

MedLink – federally qualified community health center offering primary and preventive health care that is affordable to families. They provide comprehensive primary health care services to anyone, regardless of the patient's ability to pay.

Mended Hearts – support group for individuals with heart disease.

Northeast Georgia Diagnostic Clinic –multi-specialty medical group serving adults.

Northeast Georgia Speech Center – improves quality of life for children by helping them communicate effectively, fostering speech and language skills vital to their development of healthy personal relationships, academic achievement and productive employability later in life.

Project Search – high school transition program that is business led. It is a one year school-to-work program that takes place entirely at the workplace and offers a combination of classroom instruction, career exploration and hands-on training throughout worksite rotations.

Safe Kids of Gainesville Hall County – seeks to reduce unintentional injury and death in children 14 and under.

Teen Pregnancy Prevention – addresses the issue of teenage pregnancy and prevention by providing comprehensive and age appropriate programming, counseling and support services, community education and awareness programs.

The Guest House – provider of adult day health services and activities for seniors.

The Longstreet Clinic – primary care and multi-specialty medical group.

Think About it Campaign – strives to prevent prescription drug abuse; sponsored by the Medical Association of Georgia.

United Way of Hall County – uniting people, organizations and resources to improve lives in Hall County.

Vision 2030 – focuses on the creation of a culture of community wellness, the support and maintenance of lifelong learning, the building of an economy around emerging life sciences, the encouragement of innovative growth/infrastructure development and the promotion of cultural integration.

WomenSource – seeks to provide opportunities for personal and professional growth for women of all backgrounds and ages in Northeast Georgia.

*Additional United Way agencies that NGMC helps support through annual contributions: Alliance for Literacy, Disability Resource Center, Eagle Ranch, Children's Center for Hope & Healing, Rape Response, and more.

Appendix D: Evaluation of 2013 Implementation Strategy

Click here to view evaluation of the 2013 CHNA implementation strategy

Appendix E: Federally Designated Health Professional Shortage Areas and Medically Underserved Areas and Populations

Health Professional Shortage Areas (HPSA) [46]

NGMC Community	County Name	HPSA ID	HPSA Name	HPSA Discipline Class	Designation Type
PSA	Hall County	7139991311	Georgia Mountains Service Area	Mental Health	HPSA Geographic
GBSA	Banks County	7139991311	Georgia Mountains Service Area	Mental Health	HPSA Geographic
	Banks County	113999134Q	Low Income - Banks County	Primary Care	HPSA Population
	Banks County	6139991394	Low Income - Banks County	Dental Health	HPSA Population
	Barrow County	713999130G	Advantage Behavioral Health Systems Service Area	Mental Health	HPSA Geographic
	Barrow County	613999130V	Low Income - Barrow County	Dental Health	HPSA Population
	Gwinnett County	613999130G	Center for Pan Asian Community Services, Inc.	Dental Health	Comprehensive Health Center
	Gwinnett County	613999130E	Four Corners Primary Care Center	Dental Health	Comprehensive Health Center
	Gwinnett County	113999130F	Center for Pan Asian Community Services, Inc.	Primary Care	Comprehensive Health Center
	Gwinnett County	113999130D	Four Corners Primary Care Center	Primary Care	Comprehensive Health Center
	Gwinnett County	713999130D	Center for Pan Asian Community Services, Inc.	Mental Health	Comprehensive Health Center
	Gwinnett County	713999130B	Four Corners Primary Care Center	Mental Health	Comprehensive Health Center
	Gwinnett County	113999133V	Phillips State Prison	Primary Care	Correctional Facility
	Gwinnett County	713999137K	Cetpa	Mental Health	Other Facility
	Gwinnett County	713999137W	Phillips State Prison	Mental Health	Correctional Facility
	Jackson County	713999130G	Advantage Behavioral Health Systems Service Area	Mental Health	HPSA Geographic
SSA 400	Dawson County	7139991311	Georgia Mountains Service Area	Mental Health	HPSA Geographic
	Lumpkin County	7139991311	Georgia Mountains Service Area	Mental Health	HPSA Geographic
	Lumpkin County	1139991342	Low Income - Lumpkin County	Primary Care	HPSA Population
	Lumpkin County	6139991398	Low Income - Lumpkin County	Dental Health	HPSA Population
SSA North	Habersham County	7139991311	Georgia Mountains Service Area	Mental Health	HPSA Geographic
	Habersham County	113999135R	Lee Arrendale State Prison	Primary Care	Correctional Facility
	Habersham County	1139991381	Low Income - Habersham County	Primary Care	HPSA Population
	Habersham County	7139991354	Lee Arrendale State Prison	Mental Health	Correctional Facility
	Habersham County	613999130O	Low Income - Habersham County	Dental Health	HPSA Population
	Rabun County	7139991311	Georgia Mountains Service Area	Mental Health	HPSA Geographic
	Rabun County	11399913C8	Low Income - Rabun County	Primary Care	HPSA Population
	Stephens County	7139991311	Georgia Mountains Service Area	Mental Health	HPSA Geographic
	Towns County	113999134H	Hiawassee Family Health Practice, Primary Care	Primary Care	Rural Health Clinic
	Towns County	7139991311	Georgia Mountains Service Area	Mental Health	HPSA Geographic
	Towns County	1139991333	Low Income - Towns County	Primary Care	HPSA Population
	Union County	7139991311	Georgia Mountains Service Area	Mental Health	HPSA Geographic
	Union County	1139991346	Low Income - Union County	Primary Care	HPSA Population
	Union County	6139991340	Low Income - Union County	Dental Health	HPSA Population
	White County	7139991311	Georgia Mountains Service Area	Mental Health	HPSA Geographic

Medically Underserved Areas and Populations (MUA/P)[47]

NGMC Community	County Name	Service Area Name	MUA/P Source Identification Number	Designation Type
PSA	Hall County	Med Ind - Southeast Gainesville Service Area	715	Medically Underserved Area – Governor's Exception
GBSA	Banks County	Banks County	601	Medically Underserved Area
	Barrow County - No MUAs in this county	n/a	n/a	n/a
	Gwinnett County	Gwinnett Governor	642	Medically Underserved Population – Governor's Exception
	Jackson County	Jackson Service Area	718	Medically Underserved Area
SSA 400	Dawson County	Dawson County	626	Medically Underserved Area
	Lumpkin County	Lumpkin County	661	Medically Underserved Area
SSA North	Habersham County	Low Income - Habersham County	7924	Medically Underserved Population
	Rabun County	Rabun County	685	Medically Underserved Area
	Stephens County - No MUAs in this county	n/a	n/a	n/a
	Towns County	Low Income - Towns	7725	Medically Underserved Area
	Union County	Union County	702	Medically Underserved Area
	White County	White County	709	Medically Underserved Area

[46] U.S. Department of Health and Human Services, Health Resources and Services Administration, 2016
[47] U.S. Department of Health and Human Services, Health Resources and Services Administration, 2016

Appendix F: Interview and Focus Group Participants and the Communities and Populations Served

NGMC Community Representing	Name	Organization Representing	Interview or Focus Group	Public Health	Medically Underserved	Low Income	Chronic Disease Needs	Minority
PSA, SSA North, SSA 400	Edie Parsons, Ph.D., M.Ed.	Program Manager and Deputy Director District 2 Public Health	Interview	x	x	x	x	x
PSA, SSA North, SSA 400	Tenesha Wallace	Georgia Department of Health District 2	Interview	x	x	x	x	x
PSA	Cindy Levi	Avita Community Partners	Interview		x			
PSA	Steve Mickens	Boys and Girls Club of Hall County	Interview			x		x
PSA	Gale Starich	Brenau University	Focus Group		x	x	x	x
PSA	Shannon Lewis	Gainesville City Schools	Focus Group		x	x	x	
PSA	Ursula Harris	Gainesville City Schools	Focus Group			x		x
PSA	Paula Sawyer	Gainesville City Schools	Interview					
PSA	Jerome Yarbrough	Gainesville Fire Dept	Focus Group		x	x	x	x
PSA	Phillippa Lewis Moss	Gainesville Hall County Community Services Center	Interview			x		x
PSA	Michael Martin	Gainesville Police Department	Focus Group		x	x	x	x
PSA	Maria Calkins	Gainsville Housing Authority	Interview			x		x
PSA	Wendy Glasbrenner	Georgia Legal Services Program	Focus Group		x	x		x
PSA	Amy Kienle	Georgia Mountains YMCA	Focus Group					
PSA	Allison Borchert	Good News Clinics	Interview		x	x		
PSA	Jim Sargent	Hall County Family Connections Network	Focus Group					
PSA	Kyle Powers	Hall County Fire Services	Focus Group		x	x	x	x
PSA	Chad Black	Hall County Fire Services	Focus Group		x	x	x	x
PSA	Alan Satterfield	Hall County Health Department	Focus Group	x	x	x	x	x
PSA	Mamie Coker	Hall County Schools	Interview					
PSA	Enrique Montiel	Hall County Vision 2030	Interview					x
PSA	Abby Boerner	Hospital Advisory Board	Focus Group		x	x	x	x
PSA	Richard LoCicero, M.D.	The Longstreet Clinic	Interview					
PSA	Janice McKenzie	Northeast Georgia Health System	Focus Group		x	x	x	x
PSA	Deborah Mack	Northeast Georgia Health System Board & Advisory Board Member	Interview					
PSA	Jeff Thompson	Northeast Georgia Health System, Chaplain	Focus Group					
PSA	Kevin Lloyd	Northeast Georgia Health System, Laurelwood	Focus Group		x	x	x	x
PSA	Trena Davis	Northeast Georgia Health System, Oncology	Focus Group		x	x	x	x
PSA	Andria Caton, R.N.	Northeast Georgia Health System, Oncology	Focus Group		x	x	x	x
PSA	Donna Lee	Northeast Georgia Health System, Trauma and Acute Care Surgery	Focus Group					
PSA	Donna D. Anderson	Northeast Georgia Health System, Wellness	Focus Group			x	x	x
PSA	Antonio Rios, M.D.	Northeast Georgia Physicians Group	Focus Group		x	x	x	x
PSA	Cheryl Christian, R.N.	Retired Executive Director, Good News Clinics	Focus Group		x	x	x	x
PSA	Lupe Erazo	Right from the Start Medical Assistance, Dept. of Community Health	Focus Group		x	x	x	x
PSA	Jackie Wallace	United Way of Hall County	Focus Group		x	x	x	

NGMC Community Representing	Name	Organization Representing	Interview or Focus Group	Public Health	Medically Underserved	Low Income	Chronic Disease Needs	Minority
GBSA	Michael Day	Celebration Church	Interview					
GBSA	Linda Foster	Family Connection	Interview					
GBSA	Samuel Evans	Hall County Library System	Focus Group					x
GBSA	Leigh Carroll	Jackson County Chamber of Commerce	Focus Group					
GBSA	Roshuanda Merritt	Jackson County Health Deptment	Focus Group	x	x	x	x	x
GBSA	Benny Bagwell	Jackson Electric Membership Corporation (EMC)	Interview			x		
GBSA	Bonnie G. Jones	Jackson EMC	Focus Group		x	x	x	x
GBSA	Danny Rampey	Magnolia Estates	Focus Group					
GBSA	Martha Martin	Northeast Georgia Health System Board Member	Interview					
GBSA	Olivia Skey, R.N.	Northeast Georgia Physicians Group Board Member	Focus Group		x	x	x	x
GBSA	Jane C. Carr	Northeast Georgia Health System, Advisory Board	Focus Group		x	x	x	x
GBSA	Barbara Bostwick	Northeast Georgia Health System, Volunteer	Focus Group		x	x	x	x
GBSA	Nicholas Matthaes	Peace Place, Inc.	Focus Group		x	x	x	x
GBSA	Angie Putman	Piedmont YMCA	Interview					
SSA 400	Brooke VaBuskirk	American Cancer Society	Focus Group		x	x	x	
SSA 400	Christie Haynes	Dawson County Chamber of Commerce	Focus Group					
SSA 400	Melissa Mayton	Dawson County Chamber of Commerce	Focus Group					
SSA 400	Mike Berg	Dawson County Commission	Focus Group					
SSA 400	Damon Gibbs	Dawson County School System	Interview					
SSA 400	Rachel Fields	Georgia Department of Health District 2	Interview	x	x	x	x	x
SSA 400	David Jordan	Grace Presbyterian Church	Focus Group			x		
SSA 400	Linda Truelove	Lumpkin County Health Department	Interview	x	x	x	x	x
SSA 400	Bindy Auvermann	Next Generation Youth Development Inc.	Interview					
SSA 400	Charlie Auvermann	Next Generation Youth Development Inc.	Interview					
SSA 400	Jo Brewer	Northeast Georgia Health System	Interview					
SSA 400	Jim Bohl	Retired CEO, St. Vincent dePaul	Focus Group		x	x		
SSA 400	Libby Smith	Sleeve Co Inc	Focus Group					
SSA 400	Kara Hewatt	Sleeve Co Inc	Focus Group					
SSA 400	Sharon Hall	Supplemental Insurance Agent	Focus Group					
SSA 400	Nancy McNeil	The Bowen Center for the Arts	Focus Group					
SSA North	Jennifer Byrd	Avita Community Partners	Interview		x			
SSA North	Tori Elrod	Early Care Education Specialist	Focus Group		x	x		x
SSA North	Norman Davidson	Fitness Trainer	Focus Group				x	
SSA North	Suzanne Dow	Georgia Circle of Hope	Interview					
SSA North	Judy Forbes	Habersham County Schools	Interview					
SSA North	Ann Roger	Habersham Headstart	Focus Group		x	x		x
SSA North	Lynn Echols	Mission Health (NC)	Interview					
SSA North	Kathy Williams	Patient / Community member	Interview					
SSA North	Jeanne Buffington	Rape Response	Focus Group		x	x	x	x

Appendix G: The Johnson Group Survey Findings

THE **JOHNSON** GROUP

April 6, 2016

TO: Christy Moore, Manager, Community Health Improvement
Northeast Georgia Health System

FROM: Bill Stiles, Director of Strategy & Research

SUBJECT: *Hall County Community Interview Results*

Overview

Over a three-day period in March, 2016 a bilingual interview team fielded a short health questionnaire in Hall County and got 211 completed surveys. To ensure participants represented lower-income, Latino and uninsured residents, the interviews were all completed at one of three locations:

1. The Hall County Health Department, mostly at the prenatal clinic, a service for low-income expectant women.
2. The Good News Clinics, which provided medical and dental care to low-income, uninsured county residents
3. At public housing operated by the Gainesville Housing Authority.

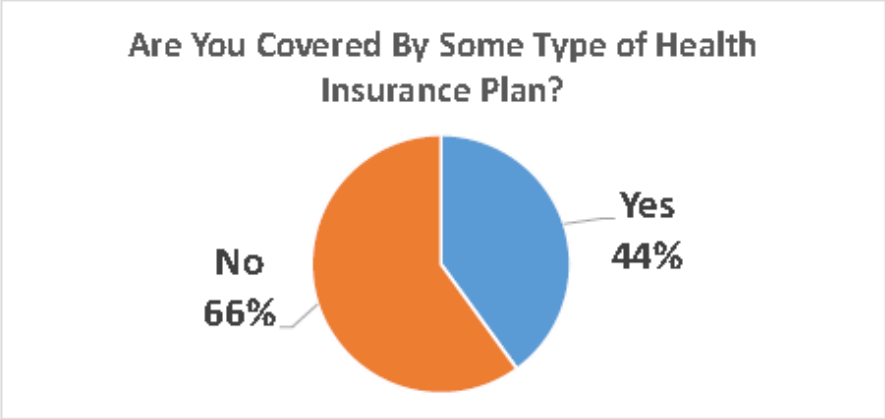
The profile of the 211 participants is as follows:

Gender:	
Male	50 or 24%
Female	161 or 76%

Age:	
18 - 24	18%
25 - 34	39%
35 - 44	21%
45 - 54	11%
55 - 64	7%
65 - Over	3%

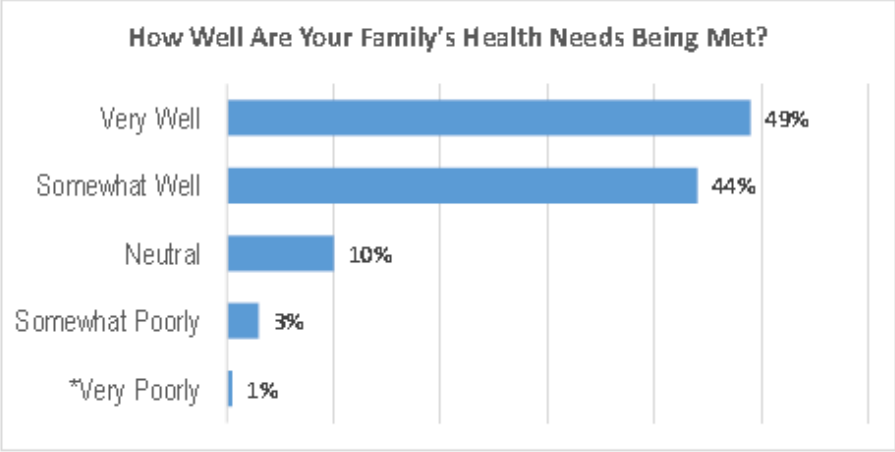
Race:	
White, Non-Hispanic	34%
Black or African American	18%
Latino or Hispanic	44%
All Others	3%

While most of those interviewed do not have insurance, 42% said they do have some type of health coverage, which could include Medicaid, Medicare or some type of insurance through work, a parent or relative.



How Well Are Family Health Needs Met?

Participants were asked how well their family's health needs are being met. Most feel their needs are being met at least somewhat well.



* One participant said their family's needs were being very poorly met, which is less than 1 percent.

When asked what prevents their families from getting needed care, more participants cited cost and insurance as their primary problems.

Q. What prevents your family from getting the care you/they need?	Number of Responses	Percent of Responses
No insurance/lack of coverage	63	30%
The cost	51	27%
No time/Can't get off work	30	14%
Transportation problems	12	6%
"Obamacare"	3	1%
Lack of access to doctors	2	1%
Language barriers	1	–
Legal status	1	–
Special needs	1	–
Age	1	–
No government help	1	–

Personal Health Needs

Participants were asked about their personal health needs and what problems they are having getting their health needs met. The same list of issues that affect their families also affect participants personally.

Q. What problems do you have getting your health needs met?	Number of Responses	Percent of Responses
The cost	80	38%
No insurance/lack of coverage	64	30%
Transportation problems	36	17%
No time/Can't get off work	33	16%
Getting in to see a doctor	5	2%
Lack of information from the doctor	3	1%
Language barriers	3	1%
"Obamacare"	1	–
None at all	34	16%

Greatest Health Needs

Participants were asked to identify their greatest health needs. They could provide multiple responses. The question resulted in a long list of issues, all of which are shown in the following table.

When asked what prevents their families from getting needed care, more participants cited cost and insurance as their primary problems.

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Greatest Health Needs

Participants were asked to identify their greatest health needs. They could provide multiple responses. The question resulted in a long list of issues, all of which are shown in the following table.

Q. What would you say is your greatest health need?	Number of Responses
Health insurance	45
Maternity care/Child care	40
Diabetes	27
Routine care	16
Blood pressure	15
Getting or paying for medicine	10
Getting in to see a doctor/Time with doctor	6
Heart problems	8
Transportation to the doctor	7
Birth Control	4
High cholesterol	4
Cancer	3
Kidneys	3
Neurology problems/Headaches	3
Language translation	2
Lupus	2
Surgery needed	2
Thyroid	2
Asthma	1
Food	1
Fibromyalgia	1
Hearing	1
Sickle cell anemia	1
Sleep apnea	1
Ulcers	1
None at all	26

The large numbers who cited maternity and child care is elevated based on the number of persons interviewed at the health department's prenatal clinic.

Conclusion

Thank you for the opportunity to collect this information. Should anyone have questions about the questionnaires or the interview questions, please contact:

Bill Stiles, Director of Strategy and Research
The Johnson Group
bstiles@johngroup.com
423-305-6425

Appendix H: Health Needs Matrix - Indicators Designated as High Data Needs

Indicator Category	Indicator	State Benchmark	Indicator value												
			PSA - Hall	GBSA - Banks	GBSA - Barrow	GBSA - Gwinnett	GBSA - Jackson	SSA 400 - Dawson	SSA 400 - Lumpkin	SSA N - Habersham	SSA N - Rabun	SSA N - Stephens	SSA N - Towns	SSA N - Union	SSA N - White
POPULATION	Residential segregation - non-white/white (index)	48.2	37.1	21.5	24.5	29.9	20.3	9.7	16.7	25.6	11.5	24.0		61.8	36.6
	High School Graduation Rate	70%	73%	83%	68%	71%	83%	80%	75%	76%	88%	86%		29%	90%
	Some College	61%	47%	39%	55%	63%	55%	54%	57%	47%	45%	44%	43%	54%	51%
	Medican Household Income	$49,240	$52,238	$46,018	$49,698	$59,858	$51,931	$57,491	$44,653	$40,994	$38,449	$36,870	$39,453	$40,667	$42,126
	Violent Crime Rate	385	171	231	482	235	135	65	291	163	114	281	123	68	220
	Rate of Child Abuse And/Or Neglect	10.2	10.7	15.2	11.0	4.9	22.4	14.4	17.8	11.5	29.2	12.5	20.8	15.2	22.3
HEALTH OUTCOMES	Average Number of Unhealthy Days in Past Month (Age- Adjusted)	5.9	6.2	6.6	6.9	4.7	7.1	5.9	3.5	5.6	5.2	6.5	3.7	4.6	8.1
	Diseases of the Musculoskeletal System and Connective Tissue	504.5	565.5	592.0	586.3	429.4	677.9	447.6	667.1	587.9	505.5	614.4	439.2	519	594.5
	All Other Mental and Behavioral Disorders	506.9	676	591.2	586.3	332.5	529.3	577.8	612	683.6	602	671.6	366.5	562.5	709.4
	Blood Poisoning (Septicemia) Discharge Rate	372.4	586	626.9	540.7	270.5	538.9	324.7	729.1	444.2	361.3	651.4	326.9	269.9	510.8
	Pneumonia	246.5	152.4	231.7	304.6	165.6	245.3	216.7	224.1	276.7	328.7	655.8	301.9	230.8	197.7
	All Other Diseases of the Genitourinary System	430.2	329.3	391.1	528.1	312.6	451.2	417.7	319	345	377.5	494.8	203.5	254.5	284.1
	Falls	212.2	195.1	170	265.8	211.5	248.8	207.7	220.4	189.0	201.5	304.7	175.9	126.3	262.1
	External Cause of Injury (all)	428.3	406.8	395.7	515.2	361.6	520.1	436.0	434.5	412.3	380.4	587.9	395.4	227.6	493.1
	All other Endocrine, Nutritional and Metabolic Diseases	368.9	281.7	449.6	367.9	292.7	324.7	232.1	330	239.1	224	261.5	124.6	237.2	282.2
	Colon Cancer Incidence	42.3	39.6	55.7	37.2	37.6	53.3	36.8	39.3	47.5	42.9	53.9	33.7	28.4	42.2
	Lung Cancer Incidence	68.8	65.3	68.3	87.9	54.1	78.1	66.5	83.7	63.5	53.1	77.3	61.2	76.6	72.9
	Prostate Cancer Incidence	150.1	146.9	118.5	119.6	145.2	120.5	99.8	139.3	138.5	151.7	116.2	201.7	152.3	117.6
	Births to Mothers with less than 12 years of education	15.8%	29.8%	19.2%	12.8%	12.5%	12.4%	9.0%	16.3%	25.5%	18.4%	20.6%	13.0%	17.6%	10.5%
	Births to Mothers with high school graduation	78.3%	68.6%	70.4%	83.0%	84.9%	81.3%	77.1%	80.7%	69.4%	74.3%	68.6%	61.1%	58.5%	82.7%
INJURY & DEATH	Heart Disease Death Rate	165.6	129.4	173.8	137.2	83.8	168.7	141.1	129.4	184.8	289.5	245.3	315.7	287.5	136.7
	Overall Cancer Death Rate	164.3	143.8		195.9	100.7	232.6	216.0	161.7	228.6	277.2	272.6	464.2	301.4	201.5
	Chronic Lower Respiratory Disease (CLRD) Death Rate	41.8	34.1		68.6	18.4	47.5		77.6	64.7		97.3		92.7	75.5
	Stroke Death Rate	37.0	25.6		33.6	21.6	57.3			53.1		85.7		92.7	
	Unintentional Injury Death Rate	37.8	40.6	54.6	39.2	20.8	51.9	57.7	57.9	56.1	57.4	89.0	84.7	62.4	56.9
	All Other Mental and Behavioral Disorder deaths	54.0	62.6		64.2	59.4	52.6	104.7	67.2	28.9	19.9	38.2	31.1	54.9	48.2
	COPD deaths	44.4	37.1	57.2	79.8	32.6	60.0	38.8	41.6	58.9	62.6	105.7	22.1	34.8	32.0
	Diabetes deaths	22.2	13.3	22.2	26.8	10.2	19.1	44.7		14.3		22.8	22.9	0.0	
	Premature Death	7,314	6,648	8,927	7,728	4,808	8,070	7,287	7,312	6,608	8,745	10,237	10,030	8,607	8,473
	Premature Death	7,478	6,569	10,072	7,520	4,957	7,181	8,679	7,379	6,758	10,202	9,062	7,332	7,518	6,196
	Fatal Injury Death Rate	58	55	88	71	37	73	82	66	71	99	102	118	94	77
	Injury Deaths	56.6	56.5		49.0	35.0	62.3	110.2	77.6	73.9		101.2		102.0	
	Motor Vehicle Crash Mortality Rate	12.8	13.1	25.1	17.7	8.2	15.2	20.5	21.2	15.7		23.9			16.1
	Motor Vehicle Crash Mortality Rate	13.9	13.3	28.3	19.9	8.9	17.8	19.3	22.5	17.6	20.2	25.4		22.1	15.8
	Drug overdose Death Rate	11.2	13.5		15.4	6.6	18.5	19.1	14.0	8.4	20.5	22.1	30.9		21.6
	Injury Death Rate	57.6	57.2	75.3	65.2	36.1	72.2	90.9	68.1	74.0	100.8	103.3	125.0	87.0	73.9
	Child Mortality	56	41		40	42	47	55	45	46		43		68	45
HEALTH BEHAVIORS	Teen Birth Rate	45	57	45	45	30	45	40	23	56	44	52	24	47	34
	Teen Births Rate	28.3	35.0	32.9	24.0	18.1	25.2	19.7	15.4	31.7	37.9	34.5	23.6	34.0	19.5
MENTAL HEALTH	Population to Mental Health Provider Ratio	914	1360		5954	1158	2654	756	1405	1883	580	1976	10771	1078	1544
	Poor Mental Health Days	3.30	3.4		4.3	2.7	4.3	2.7	2.5	3.2	3.0		1.8	2.2	6.2
	Suicide Death Rate	11.9	13.1		17.0	10.6	18.3	29.2	13.2	9.7				23.6	
ACCESS TO CARE	Primary Care Physicians per 100,000 Population	64	61	11	24	58	53	71	29	62	55	66	86	98	22
	Population to Primary Care Physician Ratio	1,572	1,626	9,158	4,128	1,711	1,893	1,401	3,401	1,612	1,811	1,523	1,166	1,021	4,593
	Population to Primary Care Providers (non-physician) Ratio	1,349	913	4574	5634	2046	2133	2870	1299	1620	1160	1108	1387	814	5594
	Dentists per 100,000 Population	48	46	5	22	57	49	40	26	44	37	35	37	42	29
	Population to Dentist Ratio	2,099	2,183	18,415	4,466	1,754	2,035	2,521	3,865	2,279	2,706	2,854	2,693	2,396	3,475
	Preventable Hospital Stays	61	42	77	78	54	64	53	62	58	75	75	49	32	49
PREVENTION	Pap Smear	82.8%	86.9%	-	84.6%	87.3%	83.9%	63.3%	80.0%	76.0%	72.9%	77.4%	-	74.6%	4.5%
ENVIRONMENT	Access to exercise Opportunities	75.2%	81.1%	34.1%	65.8%	79.6%	73.2%	84.7%	88.1%	87.7%	100.0%	85.0%	99.8%	100.0%	95.0%
	Limited Access to Healthy Foods	6.2%*	4.0%	3.6%	5.7%	2.0%	0.5%	0.0%	0.6%	5.0%	0.2%	5.4%	0.0%	0.0%	0.0%

Note: Indicator values shaded red are those that are unfavorable compared to the state of Georgia benchmark.

Indicator Category	Indicator	Need Differential												
		PSA - Hall	GBSA - Banks	GBSA - Barrow	GBSA - Gwinnett	GBSA - Jackson	SSA 400 - Dawson	SSA 400 - Lumpkin	SSA N - Habersham	SSA N - Rabun	SSA N - Stephens	SSA N - Towns	SSA N - Union	SSA N - White
POPULATION	Residential segregation - non-white/white (index)												28%	
	High School Graduation Rate			2%									41%	
	Some College	14%	22%	6%		5%	7%	4%	14%	16%	17%	18%	6%	10%
	Medican Household Income		7%					9%	17%	22%	25%	20%	17%	14%
	Violent Crime Rate			25%										
	Rate of Child Abuse And/Or Neglect	5%	49%	8%		120%	41%	75%	13%	186%	23%	104%	49%	119%
HEALTH OUTCOMES	Average Number of Unhealthy Days in Past Month (Age- Adjusted)	5%	12%	17%		20%					10%			37%
	Diseases of the Musculoskeletal System and Connective Tissue	12%	17%	16%		34%		32%	17%	0%	22%		3%	18%
	All Other Mental and Behavioral Disorders	33%	17%	16%		4%	14%	21%	35%	19%	32%		11%	40%
	Blood Poisoning (Septicemia) Discharge Rate	57%	68%	45%		45%		96%	19%		75%			37%
	Pneumonia			24%					12%	33%	166%	22%		
	All Other Diseases of the Genitourinary System			23%		5%					15%			
	Falls			25%		17%		4%			44%			24%
	External Cause of Injury (all)			20%		21%	2%	1%			37%			15%
	All other Endocrine, Nutritional and Metabolic Diseases		22%											
	Colon Cancer Incidence		32%			26%			12%	1%	27%			
	Lung Cancer Incidence			28%		14%		22%			12%		11%	6%
	Prostate Cancer Incidence									1%		34%	1%	
	Births to Mothers with less than 12 years of education	14%	3%					1%	10%	3%	5%		2%	
	Births to Mothers with high school graduation	10%	8%				1%		9%	4%	10%	17%	20%	
INJURY & DEATH	Heart Disease Death Rate		5%			2%			12%	75%	48%	91%	74%	
	Overall Cancer Death Rate			19%		42%	31%		39%	69%	66%	183%	83%	23%
	Chronic Lower Respiratory Disease (CLRD) Death Rate			64%		14%		86%	55%		133%		122%	81%
	Stroke Death Rate					55%			44%		132%		151%	
	Unintentional Injury Death Rate	7%	44%	4%		37%	53%	53%	48%	52%	135%	124%	65%	51%
	All Other Mental and Behavioral Disorder deaths	16%		19%	10%		94%	24%					2%	
	COPD deaths		29%	80%		35%			33%	41%	138%			
	Diabetes deaths			21%			101%				3%	3%		
	Premature Death		22%	6%		10%				20%	40%	37%	18%	16%
	Premature Death		35%	1%			16%			36%	21%		1%	
	Fatal Injury Death Rate		52%	22%		26%	41%	14%	22%	71%	76%	103%	62%	33%
	Injury Deaths					10%	95%	37%	31%		79%		80%	
	Motor Vehicle Crash Mortality Rate	2%	96%	38%		19%	60%	66%	23%		87%			26%
	Motor Vehicle Crash Mortality Rate		104%	43%		28%	39%	62%	27%	45%	82%		59%	14%
	Drug overdose Death Rate	20%		37%		65%	71%	25%		83%	97%	176%		93%
	Injury Death Rate		31%	13%		25%	58%	18%	29%	75%	79%	117%	51%	28%
	Child Mortality												21%	
HEALTH BEHAVIORS	Teen Birth Rate	27%							24%		16%		4%	
	Teen Births Rate	24%	16%						12%	34%	22%		20%	
MENTAL HEALTH	Population to Mental Health Provider Ratio	49%		551%	27%	190%		54%	106%		116%	1078%	18%	69%
	Poor Mental Health Days	3%		30%		30%								88%
	Suicide Death Rate	10%		43%		54%	145%	11%					98%	
ACCESS TO CARE	Primary Care Physicians per 100,000 Population	3%	83%	62%	8%	17%		54%	2%	13%				66%
	Population to Primary Care Physician Ratio	3%	483%	163%	9%	20%		116%	3%	15%				192%
	Population to Primary Care Providers (non-physician) Ratio		239%	318%	52%	58%	113%		20%			3%		315%
	Dentists per 100,000 Population	4%	90%	54%			17%	46%	8%	23%	27%	23%	13%	40%
	Population to Dentist Ratio	4%	777%	113%			20%	84%	9%	29%	36%	28%	14%	66%
	Preventable Hospital Stays		26%	28%		5%		2%		23%	23%			
PREVENTION	Pap Smear						20%	3%	7%	10%	5%		8%	78%
ENVIRONMENT	Access to exercise Opportunities		41%	9%		2%								
	Limited Access to Healthy Foods	4%	-	-	2%	-	-	-	5%	-	-	-	-	-

Indicator Category	Indicator	Source:
POPULATION	Residential segregation - non-white/white (index)	U.S.Census, American Community Survey, 2010-2014
	High School Graduation Rate	Data.gov and National Center for Education Statistics, 2011-2012
	Some College	American Community Survey, 2009-2013
	Medican Household Income	U.S Census, Small Area Income and Poverty Estimates, 2014
	Violent Crime Rate	Uniform Crime Reporting - FBI 2010-2012
	Rate of Child Abuse And/Or Neglect	Georgia Family Partnership, 2014
HEALTH OUTCOMES	Average Number of Unhealthy Days in Past Month (Age- Adjusted)	Behavior Risk Factor Surveillance System, 2006-2012
	Diseases of the Musculoskeletal System and Connective Tissue	Georgia Dept Public Health 2014
	All Other Mental and Behavioral Disorders	Georgia Dept Public Health 2014
	Blood Poisoning (Septicemia) Discharge Rate	Georgia Dept Public Health, 2014
	Pneumonia	Georgia Dept Public Health 2014
	All Other Diseases of the Genitourinary System	Georgia Dept Public Health 2014
	Falls	Georgia Dept Public Health 2014
	External Cause of Injury (all)	Georgia Dept Public Health 2014
	All other Endocrine, Nutritional and Metabolic Diseases	Georgia Dept Public Health 2014
	Colon Cancer Incidence	National Cancer Institute 2008-2012
	Lung Cancer Incidence	National Cancer Institute 2008-2013
	Prostate Cancer Incidence	National Cancer Institute 2008-2014
	Births to Mothers with less than 12 years of education	Georgia Family Partnership, 2014
	Births to Mothers with high school graduation	Georgia Family Partnership, 2014
INJURY & DEATH	Heart Disease Death Rate	National Vital Statistics System (CDC/NCHS), 2013
	Overall Cancer Death Rate	National Vital Statistics System (CDC/NCHS), 2013
	Chronic Lower Respiratory Disease (CLRD) Death Rate	National Vital Statistics System (CDC/NCHS), 2013
	Stroke Death Rate	National Vital Statistics System (CDC/NCHS), 2013
	Unintentional Injury Death Rate	National Vital Statistics System (CDC/NCHS), 2011-2013
	All Other Mental and Behavioral Disorder deaths	Georgia Dept Public Health, 2014
	COPD deaths	Georgia Dept Public Health, 2015
	Diabetes deaths	Georgia Dept Public Health, 2016
	Premature Death	National Center for Health Statistics - Mortality files 2010-2012
	Premature Death	Georgia Dept Public Health 2014
	Fatal Injury Death Rate	CDC WONDER Mortality Data, 2008-2012
	Injury Deaths	National Vital Statistics System (CDC/NCHS), 2013
	Motor Vehicle Crash Mortality Rate	National Vital Statistics System (CDC/NCHS), 2009-2013
	Motor Vehicle Crash Mortality Rate	CDC WONDER mortality data, 2007-2013
	Drug overdose Death Rate	CDC WONDER mortality data, 2012-2014
	Injury Death Rate	CDC WONDER mortality data, 2009-2013
	Child Mortality	CDC WONDER mortality data, 2010-2013
HEALTH BEHAVIORS	Teen Birth Rate	National Center for Health Statistics - Natality files, 2006-2012
	Teen Births Rate	Georgia Dept Public Health, 2014
MENTAL HEALTH	Population to Mental Health Provider Ratio	CMS National Provider Identification File, 2014
	Poor Mental Health Days	Behavioral Risk Factor Surveillance System, 2006-2012
	Suicide Death Rate	National Vital Statistics System (CDC/NCHS), 2010-2014
ACCESS TO CARE	Primary Care Physicians per 100,000 Population	HRSA Area Health Resource File/American Medical Association, 2012
	Population to Primary Care Physician Ratio	HRSA Area Health Resource File/American Medical Association, 2012
	Population to Primary Care Providers (non-physician) Ratio	CMS, National Provider Identification file, 2015
	Dentists per 100,000 Population	HRSA Area Health Resource File/National Provider Identification file, 2013
	Population to Dentist Ratio	HRSA Area Health Resource File/National Provider Identification file, 2013
	Preventable Hospital Stays	Dartmouth Atlas of Health Care, 2012
PREVENTION	Pap Smear	BRFSS (CDC/PHSIPO), 2006-2012
ENVIRONMENT	Access to exercise Opportunities	Business Analyst, Delorme map data, ESRI, & US Census Tigerline Files, 2010 & 2014
	Limited Access to Healthy Foods	CDC.gov: Community Health Status Indicators, 2012

NOTES:

-Indicators included in table above are included in the "High Data" portion of the Health Needs Matrix (>=20% Need Differential for GBSA, SSA-400, SSA-N; and >=5% for PSA).

-The need differential is shown when the county indicator is unfavorable when compared to the benchmark. The greater the percentage, the greater the difference from the benchmark.

*Benchmark for "Limited Access to Healthy Foods" is U.S. Benchmark (state was not available).

Appendix I: CHNA Work Groups

Board Level Committee:	CHNA Workgroup:
Olivia Skey, RN, NGPG Board, (CHAIRPERSON) Monica Newton, DO, NGPG (CO-CHAIRPERSON) Billy Boyd, NGMC Advisory Board, Executive Director, Habersham United Way Mohak Dave, MD, The Medical Center Foundation Board, NGHS Board Tim Evans, Health Partners Board, Vice President, Economic Development, Greater Hall Chamber of Commerce Kaye Herth, Ph.D., RN, FAAN, NGMC Board, Dean Emerita, Minnesota State University Deborah Mack, NGMC Board, Community Volunteer and Former Hall County Commissioner Semuel Maysonet, NGMC Advisory Board, iMortgage Services, Loan Consultant Phillippa Lewis Moss, NGMC & Advisory Board, Director, Gainesville Hall County Community Service Center Jackie Wallace, NGMC Board, Former President, United Way Hall County Rich White, Hospital Authority, Former CEO, United Community Bank	Linda Berger, Director of Planning, NGMC Jo Brewer, Administrator, Medical Plaza 400 Mohak Dave, MD, The Medical Center Foundation Board Kay Hall/Debbie Callahan, Emergency Department, NGMC Janice McKenzie, Case Management, NGMC Christy Moore, Community Health Improvement, NGMC (PROJECT MGR) Linda Nicholson, Controller, NGMC Tracy Vardeman, Chief Strategy Executive (EXECUTIVE SPONSOR)