Johnston Health

Smithfield, North Carolina

JOHNSTON
UNC HEALTH CARE

Community Health Needs Assessment
and Implementation Strategy

Adopted by Board Resolution June 23, 2016

Dear Community Member:

For 65 years, Johnston Health has provided access to high-quality, compassionate care in the greater Smithfield area. Indeed, we're proud of the growth and the many medical and technological advances since opening as Johnston Memorial Hospital in 1951.

In this "2016 Community Health Needs Assessment," we've identified the priority local health needs and a plan for how to address them. We do these reports every three years; our first was completed three years ago and is available for your review and comment.

We can't solve all of the problems that we've identified in our reports—that would require an unlimited amount of resources. Some of the problems are beyond the hospital's mission, while others must be solved by individuals rather than organizations. In this plan, we look upon collaboration with area agencies and organizations as a way to bring out the best of what we all do, and to use those resources to address our communities' most pressing needs.

In preparing this report, we are identifying the ways our hospital is using 'community benefits' to address the documented health and medical needs in our community. Specifically, community benefits are the unbillable services that a hospital provides, such as free health screenings, health fairs, the expense involved in recruiting physicians. More important, the purpose of this report is to guide us and others to make the health improvements needed in our area.

As you read our latest report, please jot down your suggestions of how we can improve health and medical services. Let us know if you think we've identified the primary needs of the community, and whether we've come up with a plan that will work. We welcome and value your ideas and feedback.

Our communities are wonderful places in which to live, work, and play. By working together, we can bring about healthful changes that will benefit us all.

Sincerely,

Charles W. Elliott, Jr.
Chief Executive Officer
Johnston Health

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EXECUTIVE SUMMARY

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Johnston Health ("JH" or the "Hospital") has performed a Community Health Needs Assessment to determine the health needs of the local community and develop an implementation plan to outline and organize how to meet those needs.

Data was gathered from multiple well-respected secondary sources to build an accurate picture of the current community and its health needs. A survey of a select group of Local Experts was performed to review the prior CHNA and provide feedback, and to ascertain whether the previously identified needs are still a priority. A second survey was distributed to the same group that reviewed the data gathered from the secondary sources and determined the Significant Health Needs for the community.

The Significant Health Needs for Johnston County are:

1. Affordability/Accessibility
2. Cancer
3. Mental Health/Suicide
4. Coronary Heart Disease
5. Diabetes
6. Physicians

The Hospital has developed implementation strategies for all six of the needs including activities to continue/pursue, community partners to work alongside, and leading and lagging indicators to track.

APPROACH

APPROACH

A Community Health Needs Assessment (CHNA) is part of the required hospital documentation of "Community Benefit" under the Affordable Care Act (ACA), required of all not-for-profit hospitals as a condition of retaining tax-exempt status. ***While Johnston Health is not required to submit a 990 h, it has gone through the same process to be sure it identifies and responds to the primary health needs of its residents.***

This study is designed to comply with standards required of a not-for-profit hospital. In addition to completing a CHNA and funding necessary improvements, a not-for-profit hospital must document the following:

- Financial assistance policy and policies relating to emergency medical care
- Billing and collections
- Charges for medical care

Further explanation and specific regulations are available from Health and Human Services (HHS), the Internal Revenue Service (IRS), and the U.S. Department of the Treasury.

Project Objectives

JH partnered with Quorum Health Resources (Quorum) to:

- Complete a CHNA report
- Produce the information necessary for the Hospital to issue an assessment of community health needs and document its intended response

Overview of Community Health Needs Assessment

Typically, non-profit hospitals qualify for tax-exempt status as a Charitable Organization, described in Section 501(c)(3) of the Internal Revenue Code; however, the term 'Charitable Organization' is undefined. Prior to the passage of Medicare, charity was generally recognized as care provided to the less fortunate who did not have means to pay. With the introduction of Medicare, the government met the burden of providing compensation for such care.

In response, IRS Revenue ruling 69-545 eliminated the Charitable Organization standard and established the Community Benefit Standard as the basis for tax-exemption. Community Benefit determines if hospitals promote the health of a broad class of individuals in the community, based on factors including:

- An Emergency Room open to all, regardless of ability to pay
- Surplus funds used to improve patient care, expand facilities, train, etc.
- A board controlled by independent civic leaders
- All available and qualified physicians granted hospital privileges

Specifically, the IRS requires:

- Effective on tax years beginning after March 23, 2012, each 501(c)(3) hospital facility is required to conduct a CHNA at least once every three taxable years and to adopt an implementation strategy to meet the community needs identified through such assessment.

- The assessment may be based on current information collected by a public health agency or non-profit organization and may be conducted together with one or more other organizations, including related organizations.
- The assessment process must take into account input from persons who represent the broad interests of the community served by the hospital facility, including those with special knowledge or expertise of public health issues.
- The hospital must disclose in its annual information report to the IRS (Form 990 and related schedules) how it is addressing the needs identified in the assessment and, if all identified needs are not addressed, the reasons why (e.g., lack of financial or human resources).
- Each hospital facility is required to make the assessment widely available and downloadable from the hospital website.
- Failure to complete a CHNA in any applicable three-year period results in an excise tax to the organization of $50,000. For example, if a facility does not complete a CHNA in taxable years one, two, or three, it is subject to the penalty in year three. If it then fails to complete a CHNA in year four, it is subject to another penalty in year four (for failing to satisfy the requirement during the three-year period beginning with taxable year two and ending with taxable year four).
- An organization that fails to disclose how it is meeting needs identified in the assessment is subject to existing incomplete return penalties.

Community Health Needs Assessment Subsequent to Initial Assessment

The Final Regulations establish a required step for a CHNA developed after the initial report. This requirement calls for considering written comments received on the prior CHNA and Implementation Strategy as a component of the development of the next CHNA and Implementation Strategy. The specific requirement is:

> *"The 2013 proposed regulations provided that, in assessing the health needs of its community, a hospital facility must take into account input received from, at a minimum, the following three sources:*
>
> *(1) At least one state, local, tribal, or regional governmental public health department (or equivalent department or agency) with knowledge, information, or expertise relevant to the health needs of the community;*
>
> *(2) members of medically underserved, low-income, and minority populations in the community, or individuals or organizations serving or representing the interests of such populations; and*
>
> *(3) written comments received on the hospital facility's most recently conducted CHNA and most recently adopted implementation strategy.*
>
> *…the final regulations retain the three categories of persons representing the broad interests of the community specified in the 2013 proposed regulations but clarify that a hospital facility must ''solicit'' input from these categories and take into account the input ''received.'' The Treasury Department and the IRS expect, however, that a hospital facility claiming that it solicited, but*

could not obtain, input from one of the required categories of persons will be able to document that it made reasonable efforts to obtain such input, and the final regulations require the CHNA report to describe any such efforts."

Representatives of the various diverse constituencies outlined by regulation to be active participants in this process were actively solicited to obtain their written opinion. Opinions obtained formed the introductory step in this Assessment.

To complete a CHNA:

"… the final regulations provide that a hospital facility must document its CHNA in a CHNA report that is adopted by an authorized body of the hospital facility and includes:

(1) A definition of the community served by the hospital facility and a description of how the community was determined;

(2) a description of the process and methods used to conduct the CHNA;

(3) a description of how the hospital facility solicited and took into account input received from persons who represent the broad interests of the community it serves;

(4) a prioritized description of the significant health needs of the community identified through the CHNA, along with a description of the process and criteria used in identifying certain health needs as significant and prioritizing those significant health needs; and

(5) a description of resources potentially available to address the significant health needs identified through the CHNA.

… final regulations provide that a CHNA report will be considered to describe the process and methods used to conduct the CHNA if the CHNA report describes the data and other information used in the assessment, as well as the methods of collecting and analyzing this data and information, and identifies any parties with whom the hospital facility collaborated, or with whom it contracted for assistance, in conducting the CHNA."

Additionally, a CHNA developed subsequent to the initial Assessment must consider written commentary received regarding the prior Assessment and Implementation Strategy efforts. We followed the Federal requirements in the solicitation of written comments by securing characteristics of individuals providing written comment but did not maintain identification data.

"…the final regulations provide that a CHNA report does not need to name or otherwise identify any specific individual providing input on the CHNA, which would include input provided by individuals in the form of written comments."

Quorum takes a comprehensive approach to the solicitation of written comments. As previously cited, we obtained input from the required three minimum sources and expanded input to include other representative groups. We asked all participating in the written comment solicitation process to self-identify themselves into any of the following representative classifications, which is detailed in an Appendix to this report. Written comment participants self-identified into the following classifications:

(1) **Public Health** – Persons with special knowledge of or expertise in public health

(2) **Departments and Agencies** – Federal, tribal, regional, State, or local health or other departments or agencies, with current data or other information relevant to the health needs of the community served by the hospital facility

(3) **Priority Populations** – Leaders, representatives, or members of medically underserved, low income, and minority populations, and populations with chronic disease needs in the community served by the hospital facility. Also, in other federal regulations the term Priority Populations, which include rural residents and LGBT interests, is employed and for consistency is included in this definition

(4) **Chronic Disease Groups** – Representative of or member of Chronic Disease Group or Organization, including mental and oral health

(5) **Represents the Broad Interest of the Community** – Individuals, volunteers, civic leaders, medical personnel and others to fulfill the spirit of broad input required by the federal regulations

Other (please specify)

Quorum also takes a comprehensive approach to assess community health needs. We perform several independent data analyses based on secondary source data, augment this with Local Expert Advisor[1] opinions, and resolve any data inconsistency or discrepancies by reviewing the combined opinions formed from local experts. We rely on secondary source data, and most secondary sources use the county as the smallest unit of analysis. We asked our local expert area residents to note if they perceived the problems or needs identified by secondary sources existed in their portion of the county.

Most data used in the analysis is available from public Internet sources and Quorum proprietary data from Truven. Any critical data needed to address specific regulations or developed by the Local Expert Advisor individuals cooperating with us in this study are displayed in the CHNA report appendix.

Data sources include:

Website or Data Source	Data Element	Date Accessed	Data Date
www.countyhealthrankings.org	Assessment of health needs of Johnston County compared to all state counties	November 24, 2016	2010 to 2012
www.communityhealth.hhs.gov	Assessment of health needs of Johnston County compared to its national set of "peer counties"	November 24, 2016	2005 to 2011
Truven (formerly known as Thomson) Market Planner	Assess characteristics of the hospital's primary service area, at a zip code level, based on classifying the population into various socio-economic groups,	February 23, 2015	2012 to 2015

[1] "Local Expert" is an advisory group of at least 15 local residents, inclusive of at least one member self-identifying with each of the five Quorum written comment solicitation classifications, with whom the Hospital solicited to participate in the Quorum/Hospital CHNA process.

	determining the health and medical tendencies of each group and creating an aggregate composition of the service area according to the proportion of each group in the entire area; and, to access population size, trends and socio-economic characteristics.		
www.capc.org and www.getpalliativecare.org	To identify the availability of palliative care programs and services in the area	November 24, 2016	2015
www.caringinfo.org and iweb.nhpco.org	To identify the availability of hospice programs in the country	November 24, 2016	2015
www.healthmetricsandevaluation.org	To examine the prevalence of diabetic conditions and change in life expectancy	November 24, 2016	2000 to 2010
www.cdc.gov	To examine area trends for heart disease and stroke	November 24, 2016	2008 to 2010
http://svi.cdc.gov	To identify the Social Vulnerability Index value	November 24, 2016	2010
www.CHNA.org	To identify potential needs from a variety of resource and health need metrics	November 24, 2016	2015
www.datawarehouse.hrsa.gov	To identify applicable manpower shortage designations	November 24, 2016	2015
www.worldlifeexpectancy.com	To determine relative importance among 15 top causes of death	November 24, 2016	2015

Federal regulations surrounding CHNA require local input from representatives of particular demographic sectors. For this reason, Quorum developed a standard process of gathering community input. In addition to gathering data from the above sources:

- We deployed a CHNA "Round 1" survey to our Local Expert Advisors to gain input on local health needs and the needs of priority populations. Local Expert Advisors were local individuals selected according to criteria required by the Federal guidelines and regulations and the Hospital's desire to represent the region's geographically and ethnically diverse population. We received community input from 19 Local Expert Advisors. Survey responses started January 11, 2016 and ended with the last response on February 15, 2016.
- Information analysis augmented by local opinions showed how Johnston County relates to its peers in terms of

primary and chronic needs and other issues of uninsured persons, low-income persons, and minority groups. Respondents commented on whether they believe certain population groups ("Priority Populations") need help to improve their condition, and if so, who needs to do what to improve the conditions of these groups.

- Local opinions of the needs of Priority Populations, while presented in its entirety in the Appendix, was abstracted in the following "take-away" bulleted comments
    - There is a continuing and growing need to serve the elderly population
    - Low income and/or rural residents need better access to transportation

When the analysis was complete, we put the information and summary conclusions before our Local Expert Advisors who were asked to agree or disagree with the summary conclusions. They were free to augment potential conclusions with additional comments of need, and new needs did emerge from this exchange. Consultation with 10 Local Experts occurred again via an internet-based survey (explained below) beginning February 29, 2016 and ending April 11, 2016.

Having taken steps to identify potential community needs, the Local Experts then participated in a structured communication technique called a "Wisdom of Crowds" method. The premise of this approach relies on a panel of experts with the assumption that the collective wisdom of participants is superior to the opinion of any one individual, regardless of their professional credentials.

In the JH process, each Local Expert had the opportunity to introduce needs previously unidentified and to challenge conclusions developed from the data analysis. While there were a few opinions of the data conclusions not being completely accurate, the vast majority of comments agreed with our findings. We developed a summary of all needs identified by any of the analyzed data sets. The Local Experts then allocated 100 points among the potential significant need candidates, including the opportunity to again present additional needs that were not identified from the data. A rank order of priorities emerged, with some needs receiving none or virtually no support, and other needs receiving identical point allocations.

We dichotomized the rank order of prioritized needs into two groups: "Significant" and "Other Identified Needs." Our criteria for identifying and prioritizing Significant Needs was based on a descending frequency rank order of the needs based on total points cast by the Local Experts, further ranked by a descending frequency count of the number of local experts casting any points for the need. By our definition, a Significant Need had to include all rank ordered needs until at least fifty percent (50%) of all points were included and to the extent possible, represented points allocated by a majority of voting local experts. The determination of the break point — "Significant" as opposed to "Other" — was a qualitative interpretation by Quorum and the JH executive team where a reasonable break point in rank order occurred.

COMMUNITY CHARACTERISTICS

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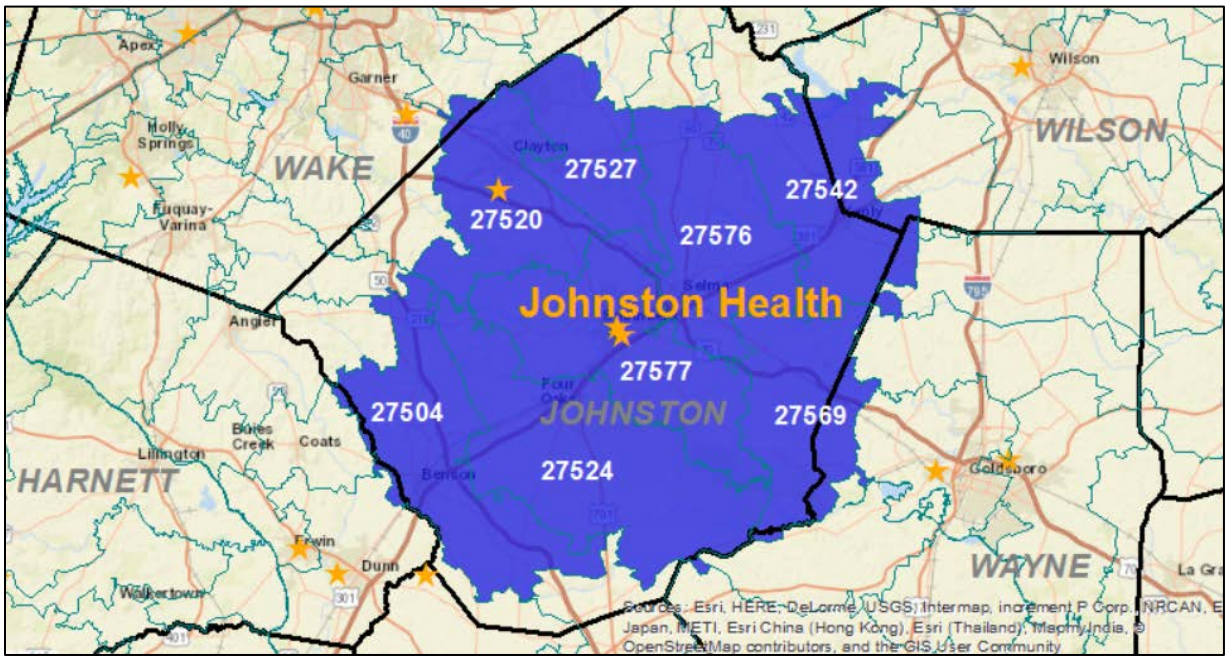
Definition of Area Served by the Hospital



Johnston Health, in conjunction with Quorum, defines its service area as Johnston County in North Carolina, which includes the following ZIP codes:[2]

27504 – Benson	27520 – Clayton	27524 – Four Oaks	27527 – Clayton
27542 – Kenly	27569 – Princeton	27576 – Selma	27577 – Smithfield

In 2014, the Hospital received 80.9% of its patients from this area.[3]

[2] The map above amalgamates zip code areas and does not necessarily display all county zip codes represented below
[3] Truven MEDPAR patient origin data for the hospital

Demographic of the Community[4]

	County	State	U.S.
2016 Population[5]	**151,917**	**10,089,413**	**322,431,073**
% Increase/Decline	**6.3%**	**4.9%**	**3.7%**
Estimated Population in 2021	**161,453**	**10,586,960**	**334,341,965**
% White, non-Hispanic	**67.4%**	**63.5%**	**61.3%**
% Black, non-Hispanic	**16.0%**	**21.3%**	**12.3%**
Median Age	**38.2**	**38.5**	**38.0**
Median Household Income	**$53,382**	**$47,647**	**$55,072**
Unemployment Rate	**4.8%**	**5.3%**	**5.0%**
% Population >65	**13.6%**	**15.3%**	**15.1%**
% Women of Childbearing Age	**19.1%**	**19.7%**	**19.6%**

Demographics Expert 2.7
2016 Demographic Snapshot
Area: Johnston County
Level of Geography: ZIP Code

DEMOGRAPHIC CHARACTERISTICS

	Selected Area	USA
2010 Total Population	140,081	308,745,538
2016 Total Population	151,917	322,431,073
2021 Total Population	161,453	334,341,965
% Change 2016 - 2021	6.3%	3.7%
Average Household Income	$65,622	$77,135

	2016	2021	% Change
Total Male Population	74,708	79,405	6.3%
Total Female Population	77,209	82,048	6.3%
Females, Child Bearing Age (15-44)	29,035	29,828	2.7%

POPULATION DISTRIBUTION

Age Distribution

Age Group	2016	% of Total	2021	% of Total	USA 2016 % of Total
0-14	32,251	21.2%	31,690	19.6%	19.0%
15-17	6,706	4.4%	7,480	4.6%	4.0%
18-24	13,362	8.8%	15,750	9.8%	9.8%
25-34	17,417	11.5%	18,320	11.3%	13.3%
35-54	43,372	28.5%	42,628	26.4%	26.0%
55-64	18,169	12.0%	20,284	12.6%	12.8%
65+	20,640	13.6%	25,301	15.7%	15.1%
Total	151,917	100.0%	161,453	100.0%	100.0%

HOUSEHOLD INCOME DISTRIBUTION

Income Distribution

2016 Household Income	HH Count	% of Total	USA % of Total
<$15K	7,038	12.7%	12.3%
$15-25K	5,381	9.7%	10.4%
$25-50K	14,285	25.7%	23.4%
$50-75K	10,599	19.1%	17.6%
$75-100K	7,434	13.4%	12.0%
Over $100K	10,774	19.4%	24.3%
Total	55,511	100.0%	100.0%

EDUCATION LEVEL

Education Level Distribution

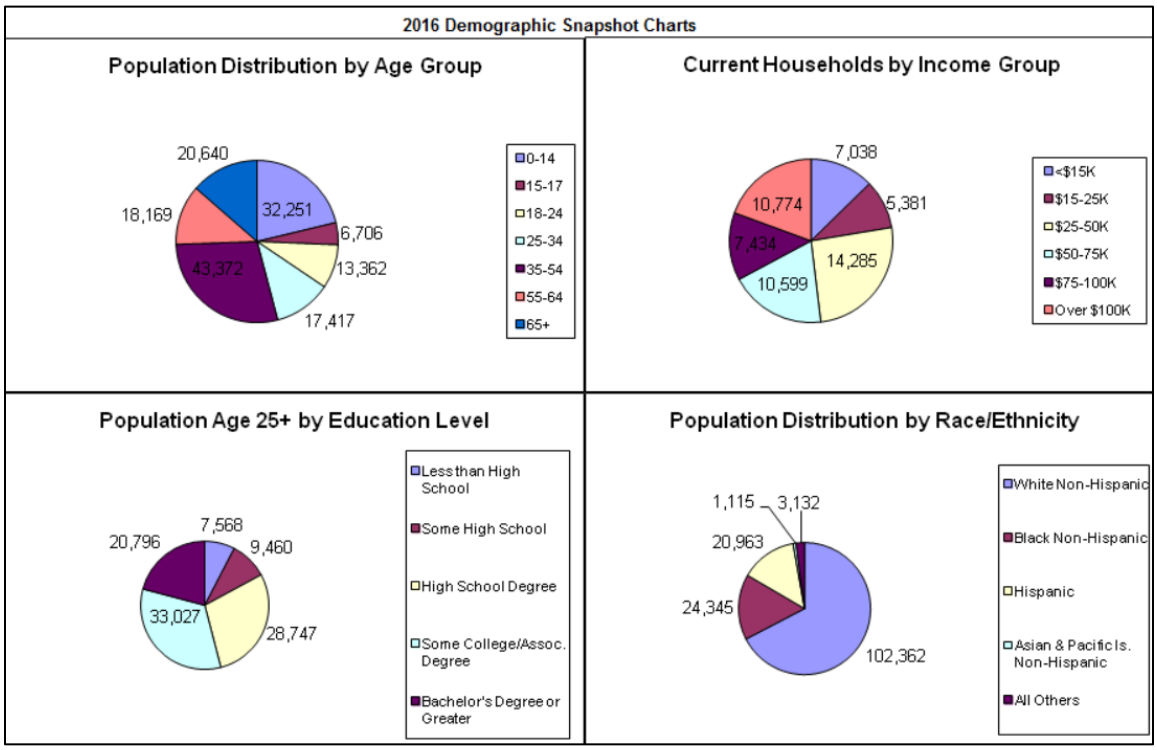
2016 Adult Education Level	Pop Age 25+	% of Total	USA % of Total
Less than High School	7,568	7.6%	5.8%
Some High School	9,460	9.5%	7.8%
High School Degree	28,747	28.9%	27.9%
Some College/Assoc. Degree	33,027	33.2%	29.2%
Bachelor's Degree or Greater	20,796	20.9%	29.4%
Total	99,598	100.0%	100.0%

RACE/ETHNICITY

Race/Ethnicity Distribution

Race/Ethnicity	2016 Pop	% of Total	USA % of Total
White Non-Hispanic	102,362	67.4%	61.3%
Black Non-Hispanic	24,345	16.0%	12.3%
Hispanic	20,963	13.8%	17.8%
Asian & Pacific Is. Non-Hispanic	1,115	0.7%	5.4%
All Others	3,132	2.1%	3.1%
Total	151,917	100.0%	100.0%

[4] The tables below were created by Truven Market Planner, a national marketing company
[5] All population information, unless otherwise cited, sourced from Truven (formally Thomson) Market Planner



2016 Benchmarks
Area: Johnston County
Level of Geography: ZIP Code

Area	2016-2021 % Population Change	Median Age	Population 65+ % of Total Population	Population 65+ % Change 2016-2021	Females 15-44 % of Total Population	Females 15-44 % Change 2016-2021	Median Household Income	Median Household Wealth	Median Home Value
USA	3.7%	38.0	15.1%	17.6%	19.6%	1.5%	$55,072	$54,224	$192,364
North Carolina	4.9%	38.5	15.3%	19.2%	19.7%	2.1%	$47,647	$48,482	$165,247
Selected Area	6.3%	38.2	13.6%	22.6%	19.1%	2.7%	$53,382	$65,534	$159,326

Demographics Expert 2.7
DEMO0003.SQP

The population was also examined according to characteristics presented in the Claritas Prizm customer segmentation data. This system segments the population into 66 demographically and behaviorally distinct groups. Each group, based on annual survey data, is documented as exhibiting specific health behaviors.

The makeup of the service area, according to the mix of Prizm segments and its characteristics, is contrasted to the national population averages to determine probable lifestyle and medical conditions present in the population. The national average, or norm, is represented as 100%. Where Johnston County varies more than 5% above or below that norm (that is, less than 95% or greater than 105%), it is considered significant.

Items in the table with red text are viewed as statistically important adverse potential findings—in other words, these are health areas that need improvement in the Johnston County area. Items with blue text are viewed as statistically important potential beneficial findings—in other words, these are areas in which Johnston County is doing better than other parts of the country. Items with black text are viewed as either not statistically different from the national norm or neither a favorable nor unfavorable finding—in other words more or less on par with national trends.

Health Service Topic	Demand as % of National	% of Population Effected	Health Service Topic	Demand as % of National	% of Population Effected
Weight / Lifestyle			**Cancer**		
BMI: Morbid/Obese	109.5%	33.2%	Mammography in Past Yr	92.3%	42.1%
Vigorous Exercise	98.0%	55.8%	Cancer Screen: Colorectal 2 yr	91.3%	23.3%
Chronic Diabetes	134.8%	16.7%	Cancer Screen: Pap/Cerv Test 2 yr	91.6%	54.9%
Healthy Eating Habits	91.9%	27.3%	Routine Screen: Prostate 2 yr	102.9%	33.0%
Ate Breakfast Yesterday	100.2%	70.5%	**Orthopedic**		
Slept Less Than 6 Hours	112.5%	16.9%	Chronic Lower Back Pain	109.1%	25.6%
Consumed Alcohol in the Past 30 Days	81.2%	44.1%	Chronic Osteoporosis	102.1%	10.1%
Consumed 3+ Drinks Per Session	104.0%	28.7%	**Routine Services**		
Behavior			FP/GP: 1+ Visit	103.0%	90.9%
I Will Travel to Obtain Medical Care	95.0%	22.1%	Used Midlevel in last 6 Months	105.8%	43.8%
I am Responsible for My Health	98.3%	64.2%	OB/Gyn 1+ Visit	93.8%	43.3%
I Follow Treatment Recommendations	95.8%	49.7%	Medication: Received Prescription	97.3%	55.8%
Pulmonary			**Internet Usage**		
Chronic COPD	99.3%	4.0%	Use Internet to Talk to MD	73.5%	9.1%
Tobacco Use: Cigarettes	109.7%	27.9%	Facebook Opinions	95.5%	9.8%
Heart			Looked for Provider Rating	91.5%	13.0%
Chronic High Cholesterol	100.9%	22.1%	**Emergency Service**		
Routine Cholesterol Screening	94.5%	48.0%	Emergency Room Use	103.9%	35.2%
Chronic Heart Failure	120.8%	5.2%	Urgent Care Use	105.1%	24.5%

Leading Causes of Death

Cause of Death			Rank among all counties in NC (#1 rank = worst in state)	Rate of Death per 100,000 age adjusted		Observation
Johnston Rank	NC Rank	Condition		NC	Johnston	
1	2	Heart Disease	8 of 100	165.3	260.5	Higher than expected
2	1	Cancer	51 of 100	167.6	191.6	As expected
3	4	Stroke	69 of 100	42.4	52.1	As expected
4	5	Accidents	47 of 100	42.7	51.8	As expected
5	3	Lung	71 of 100	46.3	43.6	As expected
6	7	Diabetes	62 of 100	21.8	22.9	As expected
7	6	Alzheimer's	79 of 100	27.7	19.9	As expected
8	9	Kidney	36 of 100	16.6	19.6	Higher than expected
9	8	Flu - Pneumonia	64 of 100	18.3	19.1	As expected
10	10	Blood Poisoning	40 of 100	13.8	15.4	Higher than expected
11	11	Suicide	60 of 100	12.6	11.9	As expected
12	12	Liver	68 of 100	10.2	8.7	As expected
13	13	Hypertension	61 of 100	7.9	7.0	As expected
14	15	Homicide	57 of 100	5.8	5.6	As expected
15	14	Parkinson's	77 of 100	7.2	4.3	As expected

National Healthcare Disparities Report – Priority Populations[6]

Information about Priority Populations in the service area of the Hospital is difficult to encounter if it exists. Our approach is to understand the general trends of issues impacting Priority Populations and to interact with our Local Experts to discern if local conditions exhibit any similar or contrary trends. The following discussion examines findings about Priority Populations from a national perspective.

We begin by analyzing the National Healthcare Quality and Disparities Reports (QDR), which are annual reports to Congress mandated in the Healthcare Research and Quality Act of 1999 (P.L. 106-129). These reports provide a comprehensive overview of the quality of healthcare received by the general U.S. population and disparities in care experienced by different racial, ethnic, and socioeconomic groups. The purpose of the reports is to assess the performance of our health system and to identify areas of strengths and weaknesses in the healthcare system along three main axes: **access to healthcare, quality of healthcare, and priorities of the National Quality Strategy (NQS)**. The complete report is provided in Appendix C.

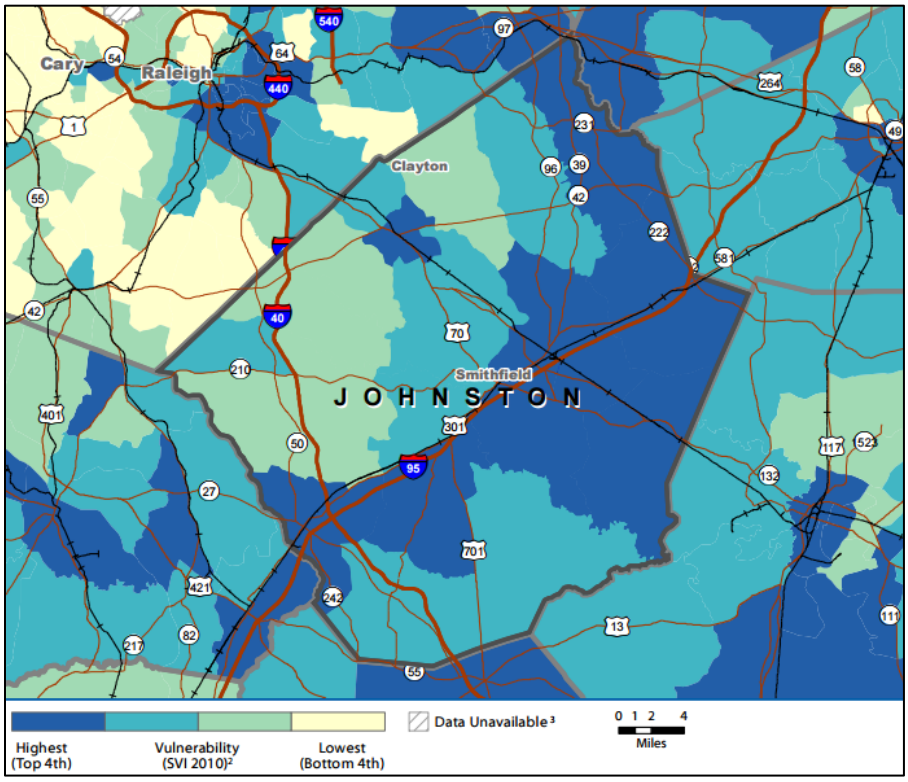
We asked a specific question to our Local Expert Advisors about unique needs of Priority Populations. We reviewed their responses to identify if any of the above trends were obvious in the service area. Accordingly, we place great reliance on the commentary received from our Local Expert Advisors to identify unique population needs to which we should respond. Specific opinions from the Local Expert Advisors are summarized below:[7]

- There is a continuing and growing need to serve the elderly population
- Low income and/or rural residents need better access to transportation

[6] http://www.ahrq.gov/research/findings/nhqrdr/nhqdr14/index.html
[7] All comments and the analytical framework behind developing this summary appear in Appendix A

Social Vulnerability

Johnston County zip codes primarily fall into the highest two quartiles of social vulnerability. The eastern portion is noted as being in the highest quartile of vulnerability. Social vulnerability refers to the resilience of communities when confronted by external stresses on human health, stresses such as natural or human-caused disasters, or disease outbreaks.



Consideration of Written Comments from Prior CHNA

A group of 19 individuals provided written comment in regard to the 2013 CHNA. Our summary of this commentary produced the following points, which were introduced in subsequent considerations of this CHNA.

Commenter characteristics:

Local Experts Offering Solicited Written Comments on 2013 Priorities and Implementation Strategy	Yes (Applies to Me)	No (Does Not Apply to Me)	Response Count
1) Public Health Expertise	3	10	13
2) Departments and Agencies with relevant data/information regarding health needs of the community served by the hospital	5	10	15
3) Priority Populations	6	6	12
4) Representative/Member of Chronic Disease Group or Organization	3	9	12
5) Represents the Broad Interest of the Community	12	4	16
Other			
Answered Question			18
Skipped Question			1

Priorities from the last assessment where the Hospital intended to seek improvement were:

- **Affordability/Accessibility** – prevent residents from being denied access to care due to limited payment ability
- **Coronary Heart Disease** – decrease the death rate from coronary heart disease
- **Diabetes** – increase the number of diabetic patients that actively monitor their condition
- **Cancer** – increase cancer detection and screening services
- **Physicians** – increase the primary care physician to population ratio
- **Mental Health/Suicide** – decrease the suicide death rate
- **Obesity/Overweight** – increase awareness of maintaining a healthy weight and lifestyle
- **Maternal and Infant Measures** – decrease the teen birth rate

JH received the following **verbatim** responses to the question: "*Comments or observations about this set of needs as being the most appropriate for the Hospital to take on in seeking improvements?"*

Should the Hospital continue to consider each need identified as most important in the 2013 CHNA report as the most important set of health needs currently confronting residents in the county?

	Yes	No	No Opinion
Affordability/Accessibility	14	0	0
Coronary Heart Disease	12	1	1
Diabetes	13	0	1

Cancer	13	0	1
Physicians	12	1	1
Mental Health/Suicide	12	1	1
Obesity/Overweight	11	2	1
Maternal and Infant Measures	11	2	1

- Specific comments or observations about **Affordability/Accessibility** as being among the most significant needs for the Hospital to work on to seek improvements?
  - Everything is too expensive for low income citizens.
  - Affordable Care Act has made many doctors less accessible.
  - The public health community assessment from 2014 that includes input from resident surveys, priority groups, and county leadership, determined that access to care, to include medical and behavioral health needs, was a top priority. This shows that this is a continued concern for our citizenry.
  - Agree with the statement under #1 above.
  - Still many uninsured or underinsured in the county. We continue to see abuse of the EMS system for routine transportation to the Emergency Dept.
  - allocations for medications-specifically psychiatric medications
  - Cancer.
  - Affordability/Accessibility should definitely be a priority for the hospital. Anytime just going to the emergency has a cost of $1400 to walk in the door this is not affordable to the average Johnston County citizens.
  - Johnston County EMS is working collaboratively with Johnston Health on a new program called "Community Paramedic Program". This program is designed to address medical needs that can be treated at home. This program reduces unnecessary EMS transports and emergency department visits. The program also assists patients with accessing medical resources for in-home care.
  - More training and classes on diabetes and obesity, health and wellness.
- Specific comments or observations about **Coronary Heart Disease** as being among the most significant needs for the Hospital to work on to seek improvements?
  - Doctors missed obvious signs of heart disease. Resulting in the dealth of a family member.
  - The data (one of the leading causes of mortality for Johnston County) continues to show the need for programs focused on heart disease and healthy behaviors to prevent heart disease.
  - no
  - unknown
  - None.
  - Excellent Coronary Hearst Disease specialist to meet the many needs of heart patients in the county.

- Coronary Heart Disease is an issue for Johnston County and Johnston County EMS is working closely with their medical director to provide the best possible care for emergent patients. Currently if a STEMI is identified by a paramedic in our EMS System, the patient is immediately transported to a PCI Center. The Community Paramedic program works with congestive heart failure which can be a result of coronary heart disease.

- Specific comments or observations about **Diabetes** as being among the most significant needs for the Hospital to work on to seek improvements?
  - Because there are many residents undiagnosed and with prediabetes, diabetes should continue to be a focus for programs and initiatives.
  - no
  - free screenings
  - Becoming a more serious problem among our citizens.
  - Johnston County has a significant number of patients with Diabetes which the Hospital has recruited doctors to assist these paitents.
  - Continue and expand patient education on diabetes before patient discharge.
- Specific comments or observations about **Cancer** as being among the most significant needs for the Hospital to work on to seek improvements?
  - As one of the leading causes of death for the county, it is important to provide education about the need for early screening but also be able to provide resources for treatment and support for those priority groups without resources.
  - no
  - information on treatment options
  - Cancer is the most significant issues facing our community.
  - Cancer Services is still among the most significant needs of Johnston County citizens. The Hospital has made improvements to serve the needs of our citizens.
  - N/A
- Specific comments or observations about **Physicians** as being among the most significant needs for the Hospital to work on to seek improvements?
  - There continues to be a shortage of primary care physicians and also a gap in care for those without insurance coverage.
  - I feel there is a need for more ENT physicians in the area. Many referrals and transfers made to other physicians due to lack of physician coverage.
  - better qualified staff and doctors with a broader knowledge base
  - No comments but as Clayton continue to grows the need for more physicians will be needed.

- Recruiting competent physicians to work in the county has improved.
- It appears that there is an additional need for primary care physicians in Johnston County who can assist lower income families with medical care.

- Specific comments or observations about **Mental Health/Suicide** as being among the most significant needs for the Hospital to work on to seek improvements?
  - The need for general mental health care and crisis services is evident by the increase in visits to the ER.
  - Need to make sure that Substance Abuse, treatment and prevention is included.
  - We continue to see growing needs among our youth for mental health. Families and individuals do not know where to seek help or resources.
  - Training, funding for services, outreach, knowledge of behavioral health services in the community and better integrated care.
  - A need that I don't think is being addressed.
  - Mental Health services is still a major problem in Johnston County. We work with homeless clients and 60% of them are dealing with mental health issues.
  - Crisis Intervention for Mental Health is available only Monday-Friday, 8 a.m. to 5 p.m., which results in EMS transports sending patients to the Emergency Department.
- Specific comments or observations about **Obesity/Overweight** as being among the most significant needs for the Hospital to work on to seek improvements?
  - no
  - reduced cost gym membership, training
  - I know that first hand this is a problem in our community.
  - N/A
- Specific comments or observations about **Maternal and Infant Measures** as being among the most significant needs for the Hospital to work on to seek improvements?
  - no
  - unknown
  - None
  - N/A

Conclusions from Public Input

Our group of 19 Local Expert Advisors participated in an online survey to offer opinions about their perceptions of community health needs and the potential needs of unique populations. Complete verbatim written comments appear in the Appendix to this report.

JH received the following responses to the question: *"Should the Hospital continue to consider each need identified as most important in the 2013 CHNA report as the most important set of health needs currently confronting residents in the county? Please add any additional information you would like us to understand."*

- Affordable healthcare remains a major barrier in our county and nation as a whole. The affordable healthcare act is not affordable to many citizens.
- Mental Health is a much needed area.
- Substance abuse treatment should be included
- I/DD

Summary of Observations: Comparison to Other Counties

Health Outcomes

In a health status classification "Health Outcomes", Johnston ranks number 32 among the 100 ranked North Carolina counties (best being #1). Premature death (deaths prior to age 75) presents worse values (shorter survivability) than on average for the US and North Carolina.

Health Factors

In another health status classification "Health Factors", Johnston County ranks number 40 among the 100 ranked North Carolina counties. The following indicators compared to NC average and to national top 10% performance present such poor values it warrants investigating how to improve:

- Adult Smoking – Johnston 25% of residents compared to NC 20% and US best of 14%
- Adult Obesity – Johnston 34% of residents compared to NC 29% and US best of 25%
- Physical Inactivity – Johnston 27% of residents compared to NC 25% and US best of 20%
- Access to Exercise Opportunities –Johnston 71% which is below the NC avg. of 76% and US best of 92%
- Excessive Drinking – Johnston 18% compared to NC 13% and US best of 10%
- Teen Births – Johnston 46/1,000 females age 15 to 19 compared to NC 42 and US best of 20 births

Clinical Care

In the "Clinical Care" classification, Johnston County ranks number 85 among the 100 ranked North Carolina counties. The following indicators compared to NC average and to national top 10% performance present such poor values it warrants investigating how to improve:

- Uninsured – Johnston 21% compared to NC 19% and US best of 11%
- Population to Primary Care Physician – Johnston 3,430:1 which is more than twice the NC 1,448:1 and over 3 times worse than the US best of 1,045:1
- Population to Dentist – Johnston 5,085:1 which is more than twice the NC 1,970:1 and over 3 times worse than the US best of 1,377:1
- Population to Mental Health Provider – Johnston 1,202:1 compared to NC 472:1 and US best of 386:1
- Preventable Hospital Stays (a measure of potential physician shortage)– Johnston 83 admissions per 1,000 compared to NC 57 and US best of 41

Social and Economic Factors

In the "Social and Economic Factors" classification, Johnston County ranks number 18 among the 100 ranked North Carolina counties. The following indicators compared to NC average and to national top 10% performance present such poor values it warrants investigating how to improve:

- Some College – Johnston 58.8% which is below the NC avg. of 63.8% and considerably below the US best of 71.0%
- Number of Social Associations – Johnston 8.9 per 10,000 residents compared to NC 11.7 and US best of 22.0
- Injury Deaths – Johnston 65 per 100,000 residents which is above the NC avg. of 64 and US best of 50

Summary of Observations: Peer Comparisons

The Federal Government administers a process to allocate all counties into "Peer" groups. County "Peer" groups have similar social, economic, and demographic characteristics. Health and wellness observations when Johnston County is compared to its national set of Peer Counties and compared to national rates result in the following:

Mortality

- *Better*
  - Alzheimer's Disease Deaths; Chronic Lower Respiratory Disease Deaths
- *Worse*
  - Coronary Heart Disease Deaths – 191.9 deaths per 100,000; worst among 34 peer counties; US avg. 126.7

Morbidity

- *Better*
  - Preterm Births; Syphilis
- *Worse*
  - Adult Diabetes – 10.0% of adults; 8th worst among 33 peer counties; US avg. 8.1%
  - Adult Obesity – 33.6% of adults; 5th worst among 33 peer counties; US avg. 30.4%
  - Adult Overall Health Status – 20.4% of adults reporting fair or poor health status, 6th worst among 31 peer counties; US avg. 16.5%
  - HIV – 221.0 rate per 100,000; 8th worst among 34 peer counties; US avg. 105.5

Healthcare Access and Quality

- *Better*
  - Nothing
- *Worse*
  - Cost Barrier to Care – 17.5% of adults not visiting doctor due to cost; 7th worst among 30 peer counties; US avg. 15.6%
  - Older Adult Preventable Hospitalizations – 90.2 hospitalizations per 1,000; the worst among 33 peer counties; US avg. 71.3
  - Uninsured – 18.7% of population without health insurance; 7th worst among 34 peer counties; US avg. 17.7%

Health Behaviors

- *Better*
  - Nothing

- *Worse*
  - Adult Physical Inactivity – 27.4% of adults; 8th worst among 33 peer counties; US avg. 25.9%
  - Adult Smoking – 24.4% of adults; 3rd worst among 33 peer counties; US avg. 21.7%

Social Factors

- *Better*
  - Nothing
- *Worse*
  - Poverty – 16.8% of individuals; 6th worst among 34 peer counties; US avg. 16.3

Physical Environment

- *Better*
  - Limited Access to Food
- *Worse*
  - Access to Parks – 2.0% of individuals; 7th worst among 34 peer counties; US avg. 14.0%

Conclusions from Demographic Analysis Compared to National Averages

We solicited opinions based on Quorum Truven database of population characteristics as we were unaware of North Carolina statistics indicating projected larger population growth rather than anticipating slow increase to a lower total projected population. The population commentary for which we obtained local opinions was as follows.

The 2016 population for Johnston County is estimated to be 151,917 and expected to increase at a rate of 6.3% through 2021. This is higher than the 3.7% national rate of growth, while North Carolina's population is expected to increase by 4.9%. In 2021, Johnston County anticipates a population of 161,453.

Population estimates indicate the 2016 median age for the county is 38.2 years, younger than the North Carolina median age (38.5 years) but slightly higher than the national median age of 38.0 years. The 2016 Median Household Income for the area is $53,382, higher than the North Carolina median income of $47,647 but below the national median income of $55,072. Median Household Wealth value is higher than both the national and the North Carolina value. However, Median Home Value for Johnston ($159,326) is lower than both the North Carolina median of $165,247 and the national median of $192,364. Johnston's unemployment rate as of December 2015 is 4.8%, which is lower than the 5.3% statewide and the 5.0% national civilian unemployment rate.

The portion of the population in the county over 65 is 13.6%, compared to North Carolina (15.3%) and the national average (15.1%). The portion of the population of women of childbearing age is 19.1%, slightly lower than the North Carolina average of 19.7% and the national rate of 19.6%. 67.4% of the population is White non-Hispanic. The largest minority is the Black non-Hispanic population which comprises 16.0% of the total.

The following areas were identified from a comparison of the county to national averages. Metrics impacting more than 30% of the population and statistically significantly different from the national average include the following. All are considered adverse:

- BMI: Morbid/Obese is 9.5% above average impacting 33.2% of the population
- Routine Cholesterol Screening is 5.5% below average impacting 48.0% of the population
- Had a Mammogram is 7.7% below average impacting 42.1% of the population
- Cervical Screening in last two years is 8.4% below average impacting 54.9% of the population
- Had an OB/GYN Visit is 6.2% below average impacting 43.3% of the population

Metrics impacting more than 30% of the population and statistically significantly different from the national average include the following. All are considered beneficial:

- Alcohol Consumption in the past 30 days is 18.8% below average impacting 44.1% of the population
- Used a Midlevel in last 6 months is 5.8% above average impacting 43.8% of the population

Conclusions from Other Statistical Data

Among the Top 15 Causes of Death in the U.S., 12 of the 15 occurred at expected rates in Johnston County. However, **Heart Disease**, **Kidney Disease**, and **Blood Poisoning** occurred at higher rates than expected. The Top 10 Causes of Death in Johnston County are:

1. Heart Disease with Johnston ranking #8 among 100 NC Counties (where #1 is worst in state)
2. Cancer ranking #51 in NC
3. Stroke ranking #69 in NC
4. Accidents ranking #47 in NC
5. Lung Disease ranking #71 in NC
6. Diabetes ranking #62 in NC
7. Alzheimer's ranking #79 in NC
8. Kidney Disease ranking #36 in NC
9. Flu/Pneumonia ranking #64 in NC
10. Blood Poisoning ranking #40 in NC

The Institute for Health Metrics and Evaluation at the University of Washington analyzed all 3,143 US counties or equivalents applying small area estimation techniques to the most recent county information.

Unfavorable Johnston County measures which are *worse than* the US avg. *and* had an *unfavorable change*:

- **Male Obesity** - As of 2011, 39.8% of males are obese; value increased 8.3 percentage points since 2001
- **Female Obesity** - As of 2011, 43.5% of females are obese; value increased 9.4 percentage points since 2001

Unfavorable Johnston County measures which are *worse than* the US avg. *but* had a *favorable change*:

- **Male Life Expectancy** - As of 2013, male life expectancy is at 75.1 years; value increased 7.5 years since 1985
- **Female Life Expectancy** -As of 2013, female life expectancy is at 80.0 years; value increased 2.6 years since 1985
- **Male Smoking** - As of 2012, male smoking is at 24.6%; value decreased 7.8 percentage points since 1996
- **Female Smoking** - As of 2012, female smoking is at 21.7%; value decreased 1.1 percentage points since 1996
- **Male Physical Activity** - As of 2011, the prevalence of recommended physical activity for males is at 56.1%; value increased 6.9 percentage points since 2001
- **Female Physical Activity** – As of 2011, the prevalence of recommended physical activity for females is at 45.4%; value increased 10.7 percentage points since 2001

Desirable Johnston County measures *better than or the same as* the US avg. *but* had an *unfavorable change*:

- **Male Heavy Drinking** – As of 2012, 7.4% of males are heavy drinkers; value increased 1.2 percentage points since 2005
- **Female Heavy Drinking** – As of 2012, 3.2% of females are heavy drinkers; value increased 0.9 percentage points since 2005
- **Male Binge Drinking** – As of 2012, 19.3% of males engage in binge drinking; value increased 2.5 percentage points since 2002
- **Female Binge Drinking** – As of 2012, 7.7% of females engage in binge drinking; value increased 2.1 percentage points since 2002

Desirable Johnston County measures *better than or the same as* the US avg. *and* had a *favorable change*:

- **Nothing**

Conclusions from Prior CHNA Implementation Activities

Worksheet 4 of Form 990 h can be used to report the net cost of community health improvement services and community benefit operations.

> *"Community health improvement services" means activities or programs, subsidized by the health care organization, carried out or supported for the express purpose of improving community health. Such services do not generate inpatient or outpatient revenue, although there may be a nominal patient fee or sliding scale fee for these services.*
>
> *"Community benefit operations" means:*
>
> - *activities associated with community health needs assessments, administration, and*
> - *the organization's activities associated with fundraising or grant-writing for community benefit programs.*

Activities or programs cannot be reported if they are provided primarily for marketing purposes or if they are more beneficial to the organization than to the community. For example, the activity or program may not be reported if it is designed primarily to increase referrals of patients with third-party coverage, required for licensure or accreditation, or restricted to individuals affiliated with the organization (employees and physicians of the organization).

To be reported, community need for the activity or program must be established. Community need can be demonstrated through the following:

- A CHNA conducted or accessed by the organization.
- Documentation that demonstrated community need or a request from a public health agency or community group was the basis for initiating or continuing the activity or program.
- The involvement of unrelated, collaborative tax-exempt or government organizations as partners in the activity or program carried out for the express purpose of improving community health.

Community benefit activities or programs also seek to achieve a community benefit objective, including improving access to health services, enhancing public health, advancing increased general knowledge, and relief of a government burden to improve health. This includes activities or programs that do the following:

- Are available broadly to the public and serve low-income consumers.
- Reduce geographic, financial, or cultural barriers to accessing health services, and if they ceased would result in access problems (for example, longer wait times or increased travel distances).
- Address federal, state, or local public health priorities such as eliminating disparities in access to healthcare services or disparities in health status among different populations.
- Leverage or enhance public health department activities such as childhood immunization efforts.
- Otherwise would become the responsibility of government or another tax-exempt organization.
- Advance increased general knowledge through education or research that benefits the public.

Activities reported by the Hospital in its implementation efforts and/or its prior year tax reporting included:

- $39,934,811

EXISTING HEALTHCARE FACILITIES, RESOURCES, & IMPLEMENTATION STRATEGY

SIGNIFICANT HEALTH NEEDS

We used the priority ranking of area health needs by the Local Expert Advisors to organize the search for locally available resources as well as the response to the needs by JH. The following list:

- Identifies the rank order of each identified Significant Need
- Presents the factors considered in developing the ranking
- Establishes a Problem Statement to specify the problem indicated by use of the Significant Need term
- Identifies JH current efforts responding to the need including any written comments received regarding prior JH implementation actions
- Establishes the Implementation Strategy programs and resources JH will devote to attempt to achieve improvements
- Documents the Leading Indicators JH will use to measure progress
- Presents the Lagging Indicators JH believes the Leading Indicators will influence in a positive fashion, and
- Presents the locally available resources noted during the development of this report as believed to be currently available to respond to this need.

In general, JH is the major hospital in the service area. Johnston Health is a 199-bed, general medical and surgical facility located in Smithfield, North Carolina. The next closest facilities are outside the service area and include:

- Betsy Johnson Regional Hospital in Dunn, NC, 23 miles (26 minutes)
- Wayne Memorial Hospital in Goldsboro, NC, 27 miles (32 minutes)
- Wilson Medical Center in Wilson, NC, 30 miles (33 minutes)
- WakeMed – Raleigh Campus, Raleigh, NC, 30 miles (36 minutes)
- Duke Raleigh Hospital in Raleigh, NC, 33 miles (35 minutes)
- UNC Rex Healthcare in Raleigh, NC, 38 miles (44 minutes)

All data items analyzed to determine significant needs are “Lagging Indicators,” measures presenting results after a period of time, characterizing historical performance. Lagging Indicators tell you nothing about how the outcomes were achieved. In contrast, the JH Implementation Strategy uses “Leading Indicators.” Leading Indicators anticipate change in the Lagging Indicator. Leading Indicators focus on short-term performance, and if accurately selected, anticipate the broader achievement of desired change in the Lagging Indicator. In the Quorum application, Leading Indicators also must be within the ability of the hospital to influence and measure.

Significant Needs

1. **AFFORDABILITY/ACCESSIBILITY** – 2013 Significant Need; Local Expert concern; uninsured rate above NC average and US best rate; 7th worst among peer counties for cost barrier to care; 7th worst among peer counties for uninsured

Public comments received on previously adopted implementation strategy:

- The hospital can only do so much in terms of cost containment.
- Would like to see expansion of the EMT home follow-up services.
- medication allocations
- None.
- The Hospital has made strides in implementation of Affordability/Accessbility especially with the Clayton location.
- Johnston Health applied for a Duke Endowment grant which assists with the Community Paramedic Program. Johnston County EMS is currently working with 5 to 6 patients per day. This program is designed to assist with medical needs at home and when there is an issue helping the patient to be seen by their primary care physician.

JH services, programs, and resources available to respond to this need include:

- Financial Assistance Policies help provide care to patients who may struggle to afford it
- Emergency Department expansion at both campuses
- Participation in Carolina Value Project, a UNC initiative to drive cost and waste out of the system
- Recruited sub-specialists, including obstetrics, nephrology, and neurology
- Added 3D mammography and outpatient retail pharmacy
- 340B program for discharged inpatients and outpatient cancer center patients
- Created special treatment area for behavioral health patients, as well as an expansion of inpatient behavioral health services in conjunction with the state
- Funded local paramedic home visits for high-risk and behavioral patients to help reduce readmissions and monitor medication compliance
- Developed onsite critical care transportation services through partnership with UNC Rex
- Relocated 50 beds to the Clayton campus, helping reduce transportation needs for patients
- Added PCI (percutaneous coronary intervention) services
- Expanded hospitalist program to improve access for patients
- Affiliation with UNC helps provide access to tertiary providers and reduce costs through shared services
- Established Healthy Kids Initiative, a program to address childhood obesity and general health improvement
- Telemedicine for burn patients in the Emergency Department

- Free prostate screenings annually
- Medicaid Application Coordinators help patients qualify for Medicaid and navigate the enrollment process
- Local and regional health fairs and community outreach events, including free screenings and educational materials
- Participation in Project Access, a program for patients without resources or insurance to help get an appointment for physician offices; physicians do not collect a fee for these visits
- Provide resources to CommWell Health, a federally-qualified health clinic for indigent care; expanded hours to better serve patients

Additionally, JH plans to take the following steps to address this need:

- Recruitment of sub-specialists in several areas, including urology and additional neurology
- Growing GI program in the outpatient setting
- Adding a stand-alone urgent care clinic in the Clayton community, helping to reduce cost and speed up services for non-emergent needs
- Telepsychiatry services for all ages, helping provide faster access for mental health patients
- Conversion to EPIC EMR to help patients move more smoothly through the system

Anticipated results from JH Implementation Strategy

Community Benefit Attribute Element	Yes, Implementation Strategy Addresses	Implementation Strategy Does Not Address
1. Available to public and serves low income consumers	X	
2. Reduces barriers to access services (or, if ceased, would result in access problems)	X	
3. Addresses disparities in health status among different populations	X	
4. Enhances public health activities	X	
5. Improves ability to withstand public health emergency		X
6. Otherwise would become responsibility of government or another tax-exempt organization	X	
7. Increases knowledge; then benefits the public	X	

The strategy to evaluate JH intended actions is to monitor change in the following Leading Indicator:

- Amount of charity care in 2015: $39,934,811
- Amount of paramedic home visits: establishing baseline in 2016

The change in the Leading Indicator anticipates appropriate change in the following Lagging Indicator:

- Local uninsured population in 2015: 15.96% (chna.org)

JH anticipates collaborating with the following other facilities and organizations to address this Significant Need:

Organization	Contact Name	Contact Information
Johnston County EMS		919.989.5050
Johnston County Health Department		919.989.5200
CommWell Health		919.934.0850

Other local resources identified during the CHNA process that are believed available to respond to this need:

Organization	Contact Name	Contact Information
UNC Physician Network		984.215.4000

2. **CANCER** – 2013 Significant Need; #2 leading cause of death; mammogram screening 7.7% below average; cervical cancer screening 8.4% below average

Public comments received on previously adopted implementation strategy:

- no
- better qualified staff and doctors
- Early diagnosis.
- Several doctors have come aboard and the physicians at the medical mall have made improvements in serving those with cancer.
- N/A

JH services, programs, and resources available to respond to this need include:

- 3D mammography
- Radiology and oncology services at both clinics in partnership with UNC Rex and Duke
- Participation in medical trials for cancer treatments
- Community screenings and education programs, including Doctor Talks
- Obtained ACOS Commission on Cancer accreditation, a measure of quality and comprehensive care
- Recruited a cancer patient navigator to help patients through the system (diagnosis to treatment)
- Low-dose CT diagnostics for lung cancer
- Art therapy for cancer patients, as well as an education and wellness program

Additionally, JH plans to take the following steps to address this need:

- Continue services described above

Anticipated results from JH Implementation Strategy

Community Benefit Attribute Element	Yes, Implementation Strategy Addresses	Implementation Strategy Does Not Address
1. Available to public and serves low income consumers	X	
2. Reduces barriers to access services (or, if ceased, would result in access problems)	X	
3. Addresses disparities in health status among different populations	X	
4. Enhances public health activities	X	
5. Improves ability to withstand public health emergency		X

Community Benefit Attribute Element	Yes, Implementation Strategy Addresses	Implementation Strategy Does Not Address
6. Otherwise would become responsibility of government or another tax-exempt organization	X	
7. Increases knowledge; then benefits the public	X	

The strategy to evaluate JH intended actions is to monitor change in the following Leading Indicator:

- Number of mammography exams in 2015: 6,772
- Number of low-dose CT scans: To begin tracking in 2016

The change in the Leading Indicator anticipates appropriate change in the following Lagging Indicator:

- Cancer death rate in Johnston County: 191.6/100,000 deaths adjusted

JH anticipates collaborating with the following other facilities and organizations to address this Significant Need:

Organization	Contact Name	Contact Information
UNC Rex		(919) 784-3100, www.rexhealth.com
Duke University Health System		(855) 855-6484, www.dukemedicine.org

Other local resources identified during the CHNA process that are believed available to respond to this need:

Organization	Contact Name	Contact Information
Polley Clinic of Dermatology		(800) 243-0566, www.polleyderm.com
Cancer Centers of America		(800) 931-9299, www.cancercenter.com
Carolina Deramatology and Endocrinology Clinic		(919) 359-0291, www.dermendo.com
Johnston County Health Department		(919) 989-5200

3. **MENTAL HEALTH/SUICIDE** – 2013 Significant Need; Local Expert concern; population to mental health provider ratio worse than US and NC

Public comments received on previously adopted implementation strategy:

- Expansion of Behavior Health Holding area has helped with overcrowding in the ED. However, more attention needs to be given to how best to meet the needs of a younger population while looking for placement/treatment options.
- need better integrated care, funding and inform individuals of service options
- None.
- We still need to implement a better mental health system in the county.
- Additional resources are needed to prevent patients being transported to the Emergency Department.

JH services, programs, and resources available to respond to this need include:

- Mental Health Screeners provide suicide risk exams to all inpatient and ED patients
- Eight psychiatrists on medical staff
- Crisis Prevention and Intervention training
- Participate in county crisis collaborative intervention
- Participation in the county homeless initiative
- Doctor Talk education programs for mental health community awareness
- Participation in the National Lazarus Project, a drug disposal program

Additionally, JH plans to take the following steps to address this need:

- Expand suicide risk exams to outpatients
- Exploring opportunities to add additional services in the mental health arena

Anticipated results from JH Implementation Strategy

Community Benefit Attribute Element	Yes, Implementation Strategy Addresses	Implementation Strategy Does Not Address
1. Available to public and serves low income consumers	X	
2. Reduces barriers to access services (or, if ceased, would result in access problems)	X	
3. Addresses disparities in health status among different populations	X	
4. Enhances public health activities	X	
5. Improves ability to withstand public health emergency		X

Community Benefit Attribute Element	Yes, Implementation Strategy Addresses	Implementation Strategy Does Not Address
6. Otherwise would become responsibility of government or another tax-exempt organization	X	
7. Increases knowledge; then benefits the public	X	

The strategy to evaluate JH intended actions is to monitor change in the following Leading Indicator:

- Number of patients screened for suicide risk: 9,569

The change in the Leading Indicator anticipates appropriate change in the following Lagging Indicator:

- Suicide death rate: 11.9/100,000 deaths adjusted

JH anticipates collaborating with the following other facilities and organizations to address this Significant Need:

Organization	Contact Name	Contact Information
Johnston County Health Department		(919) 989-5200, www.johnstonnc.com/health
Alliance Behavioral Healthcare		(919) 651-8401, www.alliancebhc.org
Johnston County Mental Health Center		(919) 989-5500, www.johnstonnc.com/mentalhealth

4. **CORONARY HEART DISEASE** – 2013 Significant Need; #1 leading cause of death; worst among peer counties

Public comments received on previously adopted implementation strategy:

- no
- unknown
- None.
- The Hospital has implemented actions which is providing excellent services for patients with Coronary Heart Disease. Especially when a patient goes to the Emergency Room with chest pains.
- Johnston County residents would greatly benefit if Johnston Health could offer a PCI Center in the County which could handle emergent intervention treatment on a 24 hour basis. This would assist with keeping residents close by home and also keep valuable medical resources more readily available.

JH services, programs, and resources available to respond to this need include:

- Established a PCI program
- Cardiopulmonary rehab program
- Cardio/MIMS for assisting with congestive heart failure remote monitoring
- ED chest pain center certifications for both campuses
- Community education programs around heart health and healthy behaviors
- WellnessWorks offers services to employers
- HealthQuest wellness center; employees, families, and volunteers receive a discounted rate
- Silver Sneakers senior wellness program
- Medical Mall Walking Program
- Sponsorship of the Heart Chase annual event in partnership with the American Heart Association
- Added stress testing at the Clayton campus

Additionally, JH plans to take the following steps to address this need:

- Pursue stroke certification
- Pursue congestive heart failure certification
- Potential addition of a second cath lab in the community

Anticipated results from JH Implementation Strategy

Community Benefit Attribute Element	Yes, Implementation Strategy Addresses	Implementation Strategy Does Not Address
1. Available to public and serves low income consumers	X	
2. Reduces barriers to access services (or, if ceased, would result in access problems)	X	
3. Addresses disparities in health status among different populations	X	
4. Enhances public health activities	X	
5. Improves ability to withstand public health emergency		X
6. Otherwise would become responsibility of government or another tax-exempt organization	X	
7. Increases knowledge; then benefits the public	X	

The strategy to evaluate JH intended actions is to monitor change in the following Leading Indicator:

- Outpatients with chest pain or possible heart attack who got drugs to break up blood clots within 30 minutes of arrival: 3,738

The change in the Leading Indicator anticipates appropriate change in the following Lagging Indicator:

- Death rate from Coronary Heart Disease: 260.5

JH anticipates collaborating with the following other facilities and organizations to address this Significant Need:

Organization	Contact Name	Contact Information
UNC Rex		(919) 784-3100, www.rexhealth.com

5. DIABETES – 2013 Significant Need; #6 leading cause of death; 8th worst among peer counties

Public comments received on previously adopted implementation strategy:

- no
- free screenings
- More support groups.
- They have implemented measures which gives patients better services to assist with Diabetes.
- N/A

JH services, programs, and resources available to respond to this need include:

- Diabetes support groups
- Follow-up education for discharged patients
- Inpatient counseling
- Certified outpatient program
- Diabetes education for all inpatients
- Provide screenings and educational materials at health fairs and through Wellness Works program
- Healthy behaviors and cooking classes for community
- Dietitian and nutritional counsel for inpatient and outpatient care

Additionally, JH plans to take the following steps to address this need:

- Developing diabetes protocol through EPIC

Anticipated results from JH Implementation Strategy

Community Benefit Attribute Element	Yes, Implementation Strategy Addresses	Implementation Strategy Does Not Address
1. Available to public and serves low income consumers	X	
2. Reduces barriers to access services (or, if ceased, would result in access problems)	X	
3. Addresses disparities in health status among different populations	X	
4. Enhances public health activities	X	
5. Improves ability to withstand public health emergency		X
6. Otherwise would become responsibility of government or another tax-exempt organization	X	
7. Increases knowledge; then benefits the public	X	

The strategy to evaluate JH intended actions is to monitor change in the following Leading Indicator:

- Number of healthy behaviors events at which education is provided: 50 events in 2015

The change in the Leading Indicator anticipates appropriate change in the following Lagging Indicator:

- Percentage of diabetic Medicare enrollees age 65-75 that receive HbA1c screening: 89%

JH anticipates collaborating with the following other facilities and organizations to address this Significant Need:

Organization	Contact Name	Contact Information
UNC Physician Network		984.215.4000

Other local resources identified during the CHNA process that are believed available to respond to this need:

Organization	Contact Name	Contact Information
Carolina Dermatology and Endocrinology Clinic		(919) 359-0291, www.dermendo.com
Johnston County Health Department		(919) 989-5200

6. **PHYSICIANS** – 2013 Significant Need; population to primary care physician ratio worse than US and NC; preventable hospital stays above NC average and US best rate; worst among peer counties for older adult preventable hospitalizations

Public comments received on previously adopted implementation strategy:

- no
- more competent physicians
- None.
- Add additional primary care physicians and provide additional educational opportunities for lower income families. Work with local health department to bring in additional primary care physicians who can be utilized for walk-in (short notice) appointments.

JH services, programs, and resources available to respond to this need include:

- Recruitment of many new providers and specialists

Additionally, JH plans to take the following steps to address this need:

- Develop Clinically Integrated Network (UNC Health Alliance) to help coordinate care across the system
- Conducting medical staff development plan to better align physician growth and succession planning
- Recruiting Vice President of Medical Affairs to help improve quality and integration, helping the patient receive better, safer, and faster care

Anticipated results from JH Implementation Strategy

Community Benefit Attribute Element	Yes, Implementation Strategy Addresses	Implementation Strategy Does Not Address
1. Available to public and serves low income consumers	X	
2. Reduces barriers to access services (or, if ceased, would result in access problems)	X	
3. Addresses disparities in health status among different populations	X	
4. Enhances public health activities	X	
5. Improves ability to withstand public health emergency		X
6. Otherwise would become responsibility of government or another tax-exempt organization	X	
7. Increases knowledge; then benefits the public	X	

The strategy to evaluate JH intended actions is to monitor change in the following Leading Indicator:

- Number of providers on medical staff: 308

The change in the Leading Indicator anticipates appropriate change in the following Lagging Indicator:

- Percentage of adults aged 18 and older who self-report that they do not have at least one person who they think of as their personal doctor or health care provider: 25.51% (chna.org)

JH anticipates collaborating with the following other facilities and organizations to address this Significant Need:

Organization	Contact Name	Contact Information
UNC Physician Network		984.215.4000

Other local resources identified during the CHNA process that are believed available to respond to this need:

Organization	Contact Name	Contact Information
UNC Rex		(919) 784-3100, www.rexhealth.com
Duke University Health System		(855) 855-6484, www.dukemedicine.org

Other Needs Identified During CHNA Process

7. **SUBSTANCE ABUSE**
8. **OBESITY/OVERWEIGHT** – 2013 Significant Need
9. **ACCIDENTS**
10. **MATERNAL AND INFANT MEASURES** – 2013 Significant Need
11. **STROKE**
12. **ALZHEIMER'S**
13. **PRIORITY POPULATIONS**
14. **CHOLESTEROL**
15. **KIDNEY DISEASE**
16. **PHYSICAL INACTIVITY**
17. **SMOKING**
18. **BLOOD POISONING**
19. **DENTAL**
20. **FLU/PNEUMONIA**
21. **LUNG DISEASE**
22. **SEXUALLY TRANSMITTED INFECTION**
23. **SOCIAL VULNERABILITY**
24. **LIFE EXPECTANCY**

Overall Community Need Statement and Priority Ranking Score

Significant needs where hospital has implementation responsibility

1. Affordability/Accessibility
2. Cancer
3. Mental Health/Suicide
4. Coronary Heart Disease
5. Diabetes
6. Physicians

Significant needs where hospital did not develop implementation strategy

None

Other needs where hospital developed implementation strategy

None

Other needs where hospital did not develop implementation strategy

7. SUBSTANCE ABUSE
8. OBESITY/OVERWEIGHT – 2013 Significant Need
9. ACCIDENTS
10. MATERNAL AND INFANT MEASURES – 2013 Significant Need
11. STROKE
12. ALZHEIMER'S
13. PRIORITY POPULATIONS
14. CHOLESTEROL
15. KIDNEY DISEASE
16. PHYSICAL INACTIVITY
17. SMOKING
18. BLOOD POISONING
19. DENTAL
20. FLU/PNEUMONIA
21. LUNG DISEASE
22. SEXUALLY TRANSMITTED INFECTION
23. SOCIAL VULNERABILITY
24. LIFE EXPECTANCY

APPENDIX

Appendix A – Written Commentary on Prior CHNA

Hospital solicited written comments about its 2013 CHNA. 19 individuals responded to the request for comments. The following presents the information received in response to the solicitation efforts by the hospital. No unsolicited comments have been received.

1. **Please indicate which (if any) of the following characteristics apply to you. If none of the following choices apply to you, skip the indication and please continue to the next question.**

Local Experts Offering Solicited Written Comments on 2013 Priorities and Implementation Strategy	Yes (Applies to Me)	No (Does Not Apply to Me)	Response Count
1) Public Health Expertise	3	10	13
2) Departments and Agencies with relevant data/information regarding health needs of the community served by the hospital	5	10	15
3) Priority Populations	6	6	12
4) Representative/Member of Chronic Disease Group or Organization	3	9	12
5) Represents the Broad Interest of the Community	12	4	16
Other			
Answered Question			18
Skipped Question			1

- **Within the county, do you perceive the local Priority Populations to have any unique needs, as well as potential unique health issues needing attention? If you believe any situation as described exists, please also indicate who you think needs to do what.**
    - Yes, Older and low income both need help with wellness and weight control programs
    - Respite care Geriatric care
    - Elderly citizens who have limited family support available need someone to ensure their needs are met. There is often a disconnect between discharge and in-home support.
    - A continuing and growing need to serve an aging population.
    - All priority populations--Needs--transportation for medical and daily living needs (shopping, events, etc.); activities focused on health literacy Chronic disease populations (diabetes, mental health, chronic lung disease)--support groups, community focused activities to increase healthy behaviors Those with disabilities--options for volunteer and community activities and physical activity
    - Opiate dependent residents who do not have Medicaid or any health coverage do not have access to affordable treatment or transportation is a barrier.
    - Opiate dependent populations who do not have Medicaid or any other healthcare coverage do not have access to treatment or have transportation barriers.
    - No change since last survey
    - Transportation needs in rural areas need to be addressed. This affects mediation obtainment and compliance, and medical, dental behavioral health treatments. Substance and mental/behavioral health-needs more treatment and prevention services in all areas including rural.
    - Access to care for elderly with chronic illnesses. Many rely on Emergency Dept. as opposed to Primary Care Provider. Transportation is also a problem with many residents who abuse the EMS system for

routine transport.

- Those with Mental Health needs/diagnosis do not have good collaboration with primary care doctors and psychiatrist. There are not enough psychiatrist who specialize in the care of those with I/DD.
- I am not aware that any unique health issues exist.
- The low-income community's biggest need to transportation for access to health facilities.
- There seems to be an increase in the homeless population which many require medical and mental attention. This unique group of individuals does require additional resources outside of our daily demands.
- Individuals that fall between the cracks with no insurance continue to need access to health care.

2. **In the last process, several data sets were examined and a group of local people were involved in advising the Hospital. While multiple needs emerged, the Hospital had to determine what issues were of high priority and where it would be a valuable resource to assist in obtaining improvements.**

   Priorities from the last assessment where the Hospital intended to seek improvement were:

- Affordability/Accessibility
- Coronary Heart Disease
- Diabetes
- Cancer
- Physicians
- Mental Health/Suicide
- Obesity/Overweight
- Maternal and Infant Measures

Comments or observations about this set of needs being the most appropriate for the Hospital to take on in seeking improvements?

- Should the Hospital continue to consider each need identified as most important in the 2013 CHNA report as the most important set of health needs currently confronting residents in the county?

	Yes	No	No Opinion
Affordability/Accessibility	14	0	0
Coronary Heart Disease	12	1	1
Diabetes	13	0	1
Cancer	13	0	1
Physicians	12	1	1
Mental Health/Suicide	12	1	1
Obesity/Overweight	11	2	1
Maternal and Infant Measures	11	2	1

- Specific comments or observations about **Affordability/Accessibility** as being among the most significant needs for the Hospital to work on to seek improvements?
    - Everything is too expensive for low income citizens.
    - Affordable Care Act has made many doctors less accessible.
    - The public health community assessment from 2014 that includes input from resident surveys, priority groups, and county leadership, determined that access to care, to include medical and behavioral health needs, was a top priority. This shows that this is a continued concern for our citizenry.
    - Agree with the statement under #1 above.
    - Still many uninsured or underinsured in the county. We continue to see abuse of the EMS system for routine transportation to the Emergency Dept.
    - allocations for medications-specifically psychiatric medications
    - Cancer.
    - Affordability/Accessibility should definitely be a priority for the hospital. Anytime just going to the emergency has a cost of $1400 to walk in the door this is not affordable to the average Johnston County citizens.
    - Johnston County EMS is working collaboratively with Johnston Health on a new program called "Community Paramedic Program". This program is designed to address medical needs that can be treated at home. This program reduces unnecessary EMS transports and emergency department visits. The program also assists patients with accessing medical resources for in-home care.
    - More training and classes on diabetes and obesity, health and wellness.
- Specific comments or observations about **Coronary Heart Disease** as being among the most significant needs for the Hospital to work on to seek improvements?
    - Doctors missed obvious signs of heart disease. Resulting in the death of a family member.
    - The data (one of the leading causes of mortality for Johnston County) continues to show the need for programs focused on heart disease and healthy behaviors to prevent heart disease.
    - no
    - unknown
    - None.
    - Excellent Coronary Hearst Disease specialist to meet the many needs of heart patients in the county.
    - Coronary Heart Disease is an issue for Johnston County and Johnston County EMS is working closely with their medical director to provide the best possible care for emergent patients. Currently if a STEMI is identified by a paramedic in our EMS System, the patient is immediately transported to a PCI Center. The Community Paramedic program works with congestive heart failure which can be a result of coronary heart disease.
- Specific comments or observations about **Diabetes** as being among the most significant needs for the Hospital to

work on to seek improvements?

- Because there are many residents undiagnosed and with prediabetes, diabetes should continue to be a focus for programs and initiatives.
- no
- free screenings
- Becoming a more serious problem among our citizens.
- Johnston County has a significant number of patients with Diabetes which the Hospital has recruited doctors to assist these patients.
- Continue and expand patient education on diabetes before patient discharge.

- Specific comments or observations about **Cancer** as being among the most significant needs for the Hospital to work on to seek improvements?
  - As one of the leading causes of death for the county, it is important to provide education about the need for early screening but also be able to provide resources for treatment and support for those priority groups without resources.
  - no
  - information on treatment options
  - Cancer is the most significant issues facing our community.
  - Cancer Services is still among the most significant needs of Johnston County citizens. The Hospital has made improvements to serve the needs of our citizens.
  - N/A
- Specific comments or observations about **Physicians** as being among the most significant needs for the Hospital to work on to seek improvements?
  - There continues to be a shortage of primary care physicians and also a gap in care for those without insurance coverage.
  - I feel there is a need for more ENT physicians in the area. Many referrals and transfers made to other physicians due to lack of physician coverage.
  - better qualified staff and doctors with a broader knowledge base
  - No comments but as Clayton continue to grows the need for more physicians will be needed.
  - Recruiting competent physicians to work in the county has improved.
  - It appears that there is an additional need for primary care physicians in Johnston County who can assist lower income families with medical care.
- Specific comments or observations about **Mental Health/Suicide** as being among the most significant needs for the Hospital to work on to seek improvements?
  - The need for general mental health care and crisis services is evident by the increase in visits to the ER.

- Need to make sure that Substance Abuse, treatment and prevention is included.
- We continue to see growing needs among our youth for mental health. Families and individuals do not know where to seek help or resources.
- Training, funding for services, outreach, knowledge of behavioral health services in the community and better integrated care.
- A need that I don't think is being addressed.
- Mental Health services is still a major problem in Johnston County. We work with homeless clients and 60% of them are dealing with mental health issues.
- Crisis Intervention for Mental Health is available only Monday-Friday, 8 a.m. to 5 p.m., which results in EMS transports sending patients to the Emergency Department.

- Specific comments or observations about **Obesity/Overweight** as being among the most significant needs for the Hospital to work on to seek improvements?
  - no
  - reduced cost gym membership, training
  - I know that first hand this is a problem in our community.
  - N/A
- Specific comments or observations about **Maternal and Infant Measures** as being among the most significant needs for the Hospital to work on to seek improvements?
  - no
  - unknown
  - None
  - N/A

3. Comments and observations about the implementation actions of the Hospital to seek health status improvement?

- Should the Hospital continue to allocate resources to assist improving the needs?

	Yes	No	No Opinion
Affordability/Accessibility	13	1	0
Coronary Heart Disease	12	1	1
Diabetes	11	1	2
Cancer	12	0	2
Physicians	12	1	1
Mental Health/Suicide	12	1	1
Obesity/Overweight	9	3	2
Maternal and Infant Measures	12	1	1

- Specific comments and observations about the implementation actions of the Hospital seeking improvement in **Affordability/Accessibility**?
    - The hospital can only do so much in terms of cost containment.
    - Would like to see expansion of the EMT home follow-up services.
    - medication allocations
    - None.
    - The Hospital has made strides in implementation of Affordability/Accessibility especially with the Clayton location.
    - Johnston Health applied for a Duke Endowment grant which assists with the Community Paramedic Program. Johnston County EMS is currently working with 5 to 6 patients per day. This program is designed to assist with medical needs at home and when there is an issue helping the patient to be seen by their primary care physician.
- Specific comments and observations about the implementation actions of the Hospital seeking improvement in **Coronary Heart Disease**?
    - no
    - unknown
    - None.
    - The Hospital has implemented actions which is providing excellent services for patients with Coronary Heart Disease. Especially when a patient goes to the Emergency Room with chest pains.
    - Johnston County residents would greatly benefit if Johnston Health could offer a PCI Center in the County which could handle emergent intervention treatment on a 24 hour basis. This would assist with keeping residents close by home and also keep valuable medical resources more readily available.
- Specific comments and observations about the implementation actions of the Hospital seeking improvement in **Diabetes**?
    - no
    - free screenings
    - More support groups.
    - They have implemented measures which gives patients better services to assist with Diabetes.
    - N/A
- Specific comments and observations about the implementation actions of the Hospital seeking improvement in **Cancer**?
    - no
    - better qualified staff and doctors

- Early diagnosis.
- Several doctors have come aboard and the physicians at the medical mall have made improvements in serving those with cancer.
- N/A

- Specific comments and observations about the implementation actions of the Hospital seeking improvement in **Physicians**?
  - no
  - more competent physicians
  - None.
  - Add additional primary care physicians and provide additional educational opportunities for lower income families. Work with local health department to bring in additional primary care physicians who can be utilized for walk-in (short notice) appointments.
- Specific comments and observations about the implementation actions of the Hospital seeking improvement in **Mental Health/Suicide**?
  - Expansion of Behavior Health Holding area has helped with overcrowding in the ED. However, more attention needs to be given to how best to meet the needs of a younger population while looking for placement/treatment options.
  - need better integrated care, funding and inform individuals of service options
  - None.
  - We still need to implement a better mental health system in the county.
  - Additional resources are needed to prevent patients being transported to the Emergency Department.

- Specific comments and observations about the implementation actions of the Hospital seeking improvement in **Obesity/Overweight**?
  - Unless you are extremely overweight - doctors don't seem to take your concerns seriously.
  - no
  - reduced cost gym memberships
  - None.
  - N/A
- Specific comments and observations about the implementation actions of the Hospital seeking improvement in **Maternal and Infant Measures**?
  - no
  - unknown

- None
- N/A

- Do you have opinions about new or additional implementation efforts or community needs the Hospital should pursue?
  - Ongoing follow-up to monitor health care after discharge.
  - No
  - Mental Health
  - Substance abuse treatment
  - no
  - No.
  - I do have one area of concern which needs to be addressed and that is the growing need for transportation for individuals seeking medical attention. It appears that many patients who have no transportation to a primary physician will call 911 which results in the patient being transferred to a local hospital. This is an area of concern for the Johnston County EMS because it ties up emergency resources to patients who could be seen by a local primary physician. If Johnston County EMS transports a patient to the Emergency Department, and that patient could have been seen by a primary physician, it also eliminates resources that could be available to respond to high acuity patients.
- Finally, after thinking about our questions and the information we seek, is there any anything else you think important as we review and revise our thinking about significant health needs within the county?
  - Keep Pounding!
  - More education and awareness needs to be public about HIV/AIDS in NC and nation.
  - Communication of services and resources to the general population would be beneficial. I believe many do not realize what Johnston Co. and Johnston Health have to offer.
  - integrated healthcare in a effective manner with competent physicians is a challenge in this county and the population of those with mental health and I/DD needs is very high
  - Not at this time because of my lack of knowledge in this area.
  - The same issues in 2013 at still issues in 2016. Drug abuse is a major issue with very few facilities and services to address the situation.

Appendix B – Identification & Prioritization of Community Needs

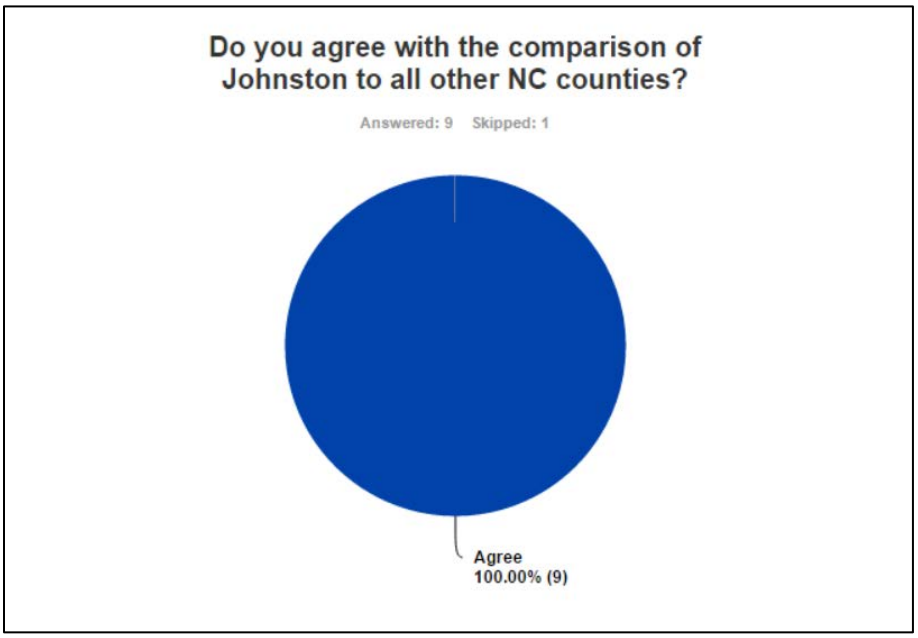
Need Topic	Total Votes	Number of Local Experts Voting for Needs	Percent of Votes	Cumulative Votes	Need Determination
Affordability/Accessibility - 2013 Significant Need	108	8	13.58%	13.58%	Significant Needs
Cancer - 2013 Significant Need	96	8	12.08%	25.66%	
Mental Health/Suicide - 2013 Significant Need	81	7	10.19%	35.85%	
Coronary Heart Disease - 2013 Significant Need	76	8	9.56%	45.41%	
Diabetes - 2013 Significant Need	67	7	8.43%	53.84%	
Physicians - 2013 Significant Need	60	7	7.55%	61.38%	
Substance Abuse	54	5	6.79%	68.18%	Other Identified Needs
Obesity/Overweight - 2013 Significant Need	49	6	6.16%	74.34%	
Accidents	28	5	3.52%	77.86%	
Maternal and Infant Measures - 2013 Significant Need	22	4	2.77%	80.63%	
Stroke	19	4	2.39%	83.02%	
Alzheimer's	16	4	2.01%	85.03%	
Priority Populations	16	4	2.01%	87.04%	
Cholesterol	12	3	1.51%	88.55%	
Kidney Disease	12	3	1.51%	90.06%	
Physical Inactivity	12	4	1.51%	91.57%	
Smoking	11	3	1.38%	92.96%	
Blood Poisoning	9	3	1.13%	94.09%	
Dental	9	3	1.13%	95.22%	
Flu/Pneumonia	9	3	1.13%	96.35%	
Lung Disease	9	3	1.13%	97.48%	
Sexually Transmitted Infection	7	3	0.88%	98.36%	
Social Vulnerability	7	3	0.88%	99.25%	
Life Expectancy	6	3	0.75%	100.00%	
Total	795		100.00%		

Individuals Participating as Local Expert Advisors

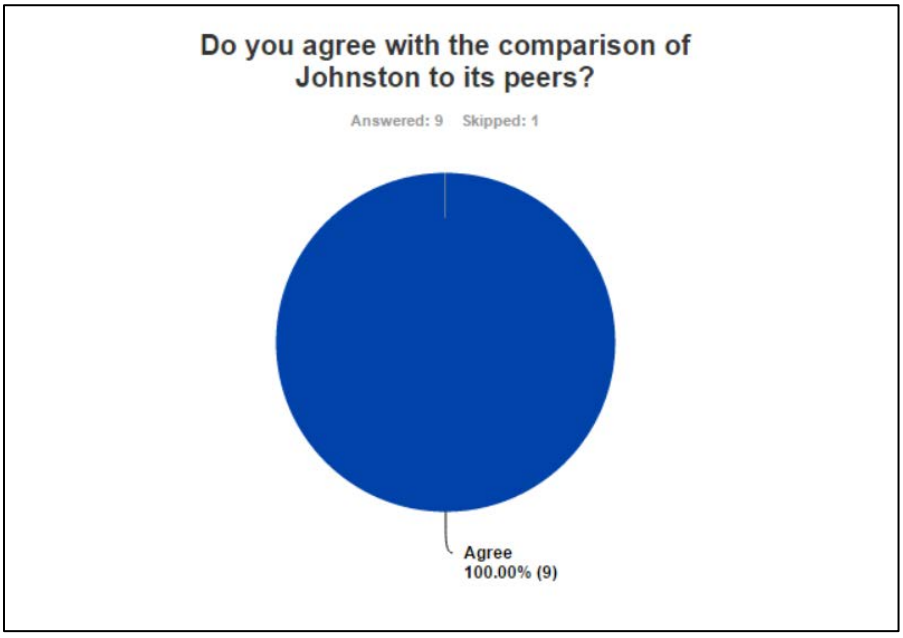
Local Experts Offering Solicited Written Comments on 2013 Priorities and Implementation Strategy	Yes (Applies to Me)	No (Does Not Apply to Me)	Response Count
1) Public Health Expertise	3	5	8
2) Departments and Agencies with relevant data/information regarding health needs of the community served by the hospital	2	7	9
3) Priority Populations	3	5	8
4) Representative/Member of Chronic Disease Group or Organization	2	6	8
5) Represents the Broad Interest of the Community	6	3	9
Other			
Answered Question			10
Skipped Question			0

Advice Received from Local Expert Advisors

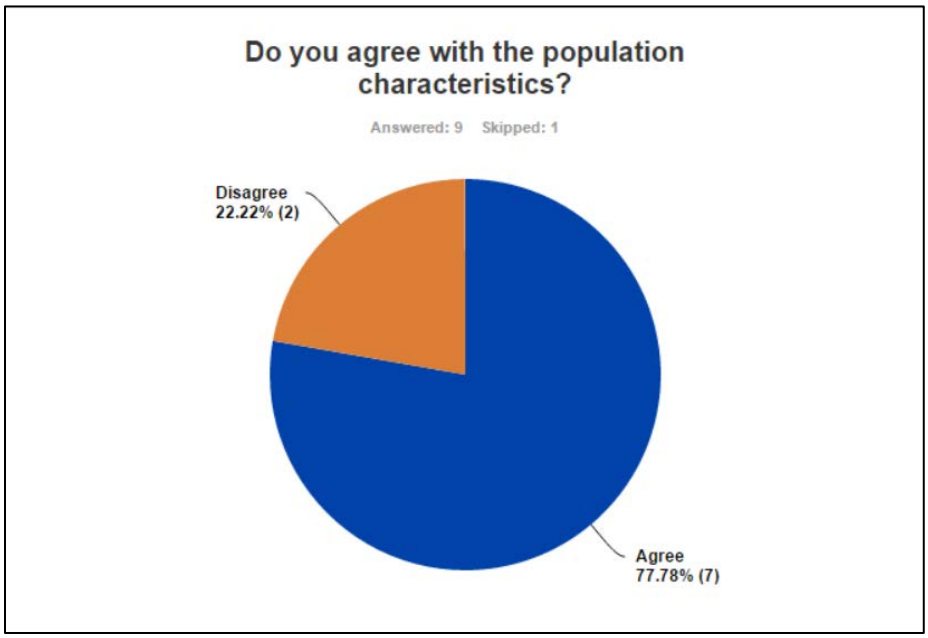
Question: *Do you agree with the observations formed about the comparison of Johnston County to all other North Carolina counties?*



Question: *Do you agree with the observations formed about the comparison of Johnston County to its peer counties?*



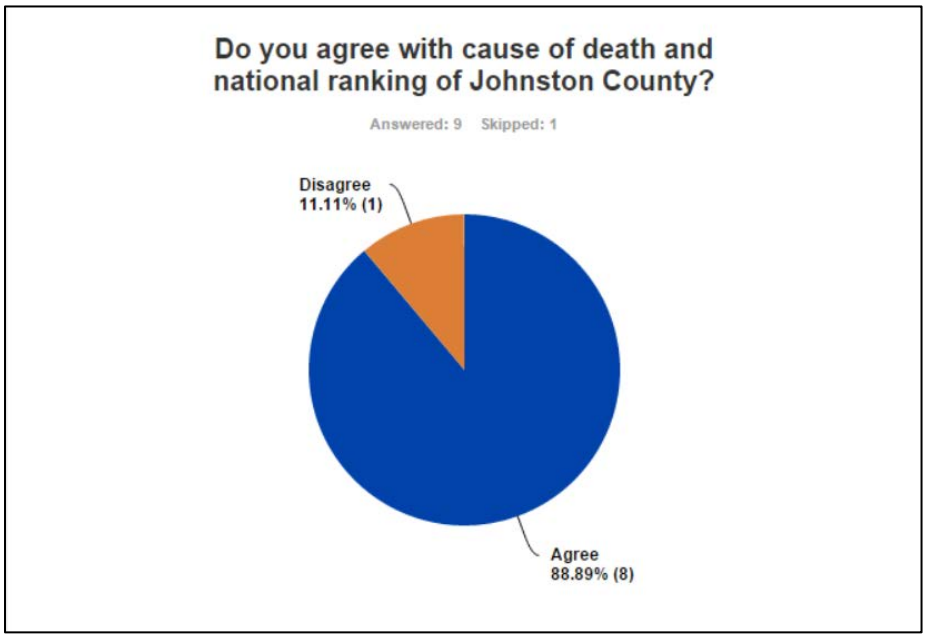
Question: *Do you agree with the observations formed about the population characteristics of Johnston County?*



Comments:

- According to census bureau, July 1, 2015 population estimate for Johnston County is 185,660.
- Johnston County's 2016 population is estimated at 182,000.
- Other adverse health characteristics: physical inactivity and unhealthy food choices contributing to the BMI rate; challenges with access to care due to lack of insurance coverage and availability of providers.

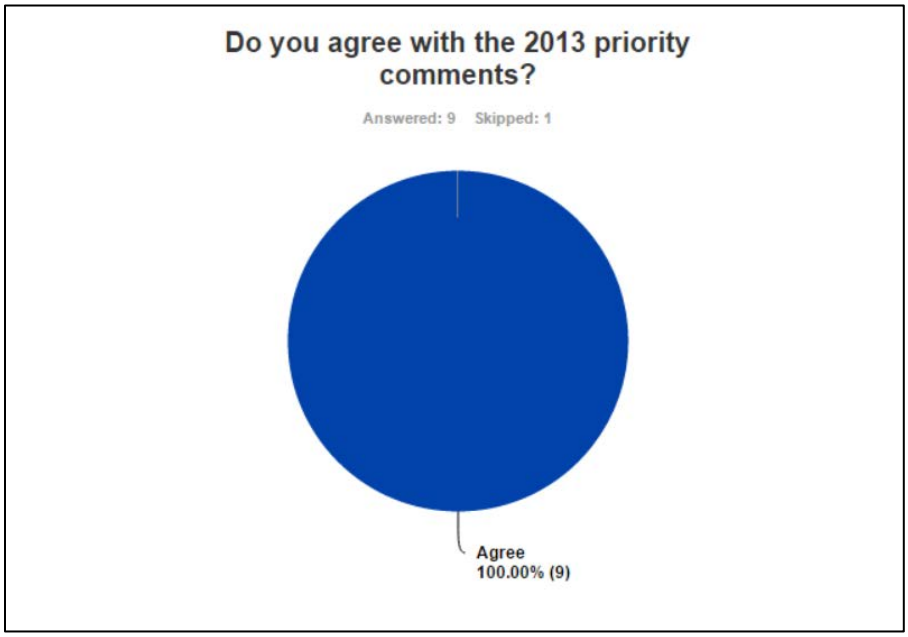
Question: *Do you agree with the observations formed from the national ranking and leading causes of death?*



Comments:

- I would suggest that cancer has become the number one cause of death in our county. I recently hear a statistic that Jo Co has more deaths due to cancer than any other county in Eastern NC. This is attributed due to our agricultural roots and the chemical exposure.

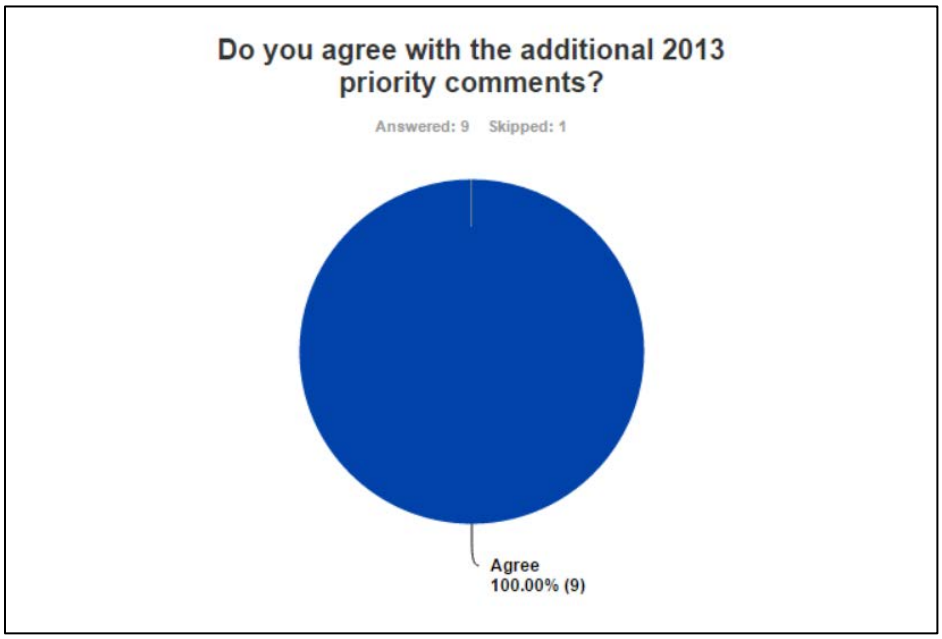
Question: *Do you agree with the written comments received on the 2013 CHNA?*



Comments:

- There is a need for homeless sheltering and transitional sheltering in the County.

Question: *Do you agree with the additional written comments received on the 2013 CHNA?*



Appendix C – National Healthcare Quality and Disparities Report

The National Healthcare Quality and Disparities Reports (QDR) are annual reports to Congress mandated in the Healthcare Research and Quality Act of 1999 (P.L. 106-129). These reports provide a comprehensive overview of the quality of healthcare received by the general U.S. population and disparities in care experienced by different racial, ethnic, and socioeconomic groups. The purpose of the reports is to assess the performance of our health system and to identify areas of strengths and weaknesses in the healthcare system along three main axes: access to healthcare, quality of healthcare, and priorities of the National Quality Strategy (NQS).

The reports are based on more than 250 measures of quality and disparities covering a broad array of healthcare services and settings. Data are generally available through 2012, although rates of un-insurance have been tracked through the first half of 2014. The reports are produced with the help of an Interagency Work Group led by the Agency for Healthcare Research and Quality (AHRQ) and submitted on behalf of the Secretary of Health and Human Services (HHS).

Beginning with this 2014 report, findings on healthcare quality and healthcare disparities are integrated into a single document. This new National Healthcare Quality and Disparities Report (QDR) highlights the importance of examining quality and disparities together to gain a complete picture of healthcare. This document is also shorter and focuses on summarizing information over the many measures that are tracked; information on individual measures will still be available through chartbooks posted on the Web (www.ahrq.gov/research/findings/nhqrdr/2014chartbooks/).

The key findings of the 2014 QDR are organized around three axes: access to healthcare, quality of healthcare, and NQS priorities.

To obtain high-quality care, Americans must first gain entry into the healthcare system. Measures of access to care tracked in the QDR include having health insurance, having a usual source of care, encountering difficulties when seeking care, and receiving care as soon as wanted. Historically, Americans have experienced variable access to care based on race, ethnicity, socioeconomic status, age, sex, disability status, sexual orientation, and residence location.

ACCESS: After years without improvement, the rate of un-insurance among adults ages 18-64 decreased substantially during the first half of 2014.

The Affordable Care Act is the most far-reaching effort to improve access to care since the enactment of Medicare and Medicaid in 1965. Provisions to increase health insurance options for young adults, early retirees, and Americans with pre-existing conditions were implemented in 2010. Open enrollment in health insurance marketplaces began in October 2013 and coverage began in January 2014. Expanded access to Medicaid in many states began in January 2014, although a few had opted to expand Medicaid earlier.

Trends

- From 2000 to 2010, the percentage of adults ages 18-64 who reported they were without health insurance coverage at the time of interview increased from 18.7% to 22.3%.
- From 2010 to 2013, the percentage without health insurance decreased from 22.3% to 20.4%.
- During the first half of 2014, the percentage without health insurance decreased to 15.6%.

- Data from the Gallup-Healthways Well-Being Index indicate that the percentage of adults without health insurance continued to decrease through the end of 2014,[8] consistent with these trends.

ACCESS: Between 2002 and 2012, access to health care improved for children but was unchanged or significantly worse for adults.

Trends

- From 2002 to 2012, the percentage of people who were able to get care and appointments as soon as wanted improved for children but did not improve for adults ages 18-64.

Disparities

- Children with only Medicaid or CHIP coverage were less likely to get care as soon as wanted compared with children with any private insurance in almost all years.
- Adults ages 18-64 who were uninsured or had only Medicaid coverage were less likely to get care as soon as wanted compared with adults with any private insurance in all years.

Trends

- Through 2012, most access measures improved for children. The median change was 5% per year.
    - Few access measures improved substantially among adults. The median change was zero.

ACCESS DISPARITIES: During the first half of 2014, declines in rates of un-insurance were larger among Black and Hispanic adults ages 18-64 than among Whites, but racial differences in rates remained.

Trends

- Historically, Blacks and Hispanics have had higher rates of un-insurance than Whites.[9]

Disparities

- During the first half of 2014, the percentage of adults ages 18-64 without health insurance decreased more quickly among Blacks and Hispanics than Whites, but differences in un-insurance rates between groups remained.
- Data from the Urban Institute's Health Reform Monitoring System indicate that between September 2013 and September 2014, the percentage of Hispanic and non-White non-Hispanic adults ages 18-64 without health insurance decreased to a larger degree in states that expanded Medicaid under the Affordable Care Act than in states that did not expand Medicaid.[10]

ACCESS DISPARITIES: In 2012, disparities were observed across a broad spectrum of access measures. People in poor households experienced the largest number of disparities, followed by Hispanics and Blacks.

Disparities

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[8] Levy J. In U.S., Uninsured Rate Sinks to 12.9%. http://www.gallup.com/poll/180425/uninsured-rate-sinks.aspx.
[9] In this report, racial groups such as Blacks and Whites are non-Hispanic, and Hispanics include all races.
[10] Long SK, Karpman M, Shartzer A, et al. Taking Stock: Health Insurance Coverage under the ACA as of September 2014. http://hrms.urban.org/briefs/Health-Insurance-Coverage-under-the-ACA-as-of-September-2014.html

- In 2012, people in poor households had worse access to care than people in high-income households on all access measures (green).
- Blacks had worse access to care than Whites for about half of access measures.
- Hispanics had worse access to care than Whites for two-thirds of access measures.
- Asians and American Indians and Alaska Natives had worse access to care than Whites for about one-third of access measures.

ACCESS DISPARITIES: Through 2012, across a broad spectrum of access measures, some disparities were reduced but most did not improve.

Disparity Trends

- Through 2012, most disparities in access to care related to race, ethnicity, or income showed no significant change (blue), neither getting smaller nor larger.
- I n four of the five comparisons shown above, the number of disparities that were improving (black) exceeded the number of disparities that were getting worse (green).

QUALITY: Quality of health care improved generally through 2012, but the pace of improvement varied by measure.

Trends

- Through 2012, across a broad spectrum of measures of health care quality, 60% showed improvement (black).
- Almost all measures of Person-Centered Care improved.
- About half of measures of Effective Treatment, Healthy Living, and Patient Safety improved.
- There are insufficient numbers of reliable measures of Care Coordination and Care Affordability to summarize in this way.

QUALITY: Through 2012, the pace of improvement varied across NQS priorities.

Trends

- Through 2012, quality of health care improved steadily but the median pace of change varied across NQS priorities:
  - Median change in quality was 3.6% per year among measures of Patient Safety.
  - Median improvement in quality was 2.9% per year among measures of Person-Centered Care.
  - Median improvement in quality was 1.7% per year among measures of Effective Treatment.
  - Median improvement in quality was 1.1% per year among measures of Healthy Living.
  - There were insufficient data to assess Care Coordination and Care Affordability.

QUALITY: Publicly reported CMS measures were much more likely than measures reported by other sources to achieve high levels of performance.

Achieved Success

Eleven quality measures achieved an overall performance level of 95% or better this year. At this level, additional improvement is limited, so these measures are no longer reported in the QDR. Of measures that achieved an overall performance level of 95% or better this year, seven were publicly reported by CMS on the Hospital Compare website (italic).

- *Hospital patients with heart attack given percutaneous coronary intervention within 90 minutes*
- Adults with HIV and CD4 cell count of 350 or less who received highly active antiretroviral therapy during the year
- *Hospital patients with pneumonia who had blood cultures before antibiotics were administered*
- *Hospital patients age 65+ with pneumonia who received pneumococcal screening or vaccination*
- *Hospital patients age 50+ with pneumonia who received influenza screening or vaccination*
- *Hospital patients with heart failure and left ventricular systolic dysfunction who were prescribed angiotensin-converting enzyme or angiotensin receptor blocker at discharge*
- *Hospital patients with pneumonia who received the initial antibiotic dose consistent with current recommendations*
- *Hospital patients with pneumonia who received the initial antibiotic dose within 6 hours of arrival*
- Adults with HIV and CD4 cell counts of 200 or less who received Pneumocystis pneumonia prophylaxis during the year
- People with a usual source of care for whom health care providers explained and provided all treatment options
- Hospice patients who received the right amount of medicine for pain management

Last year, 14 of 16 quality measures that achieved an overall performance level of 95% or better were publicly reported by CMS. Measures that reach 95% and are no longer reported in the QDR continue to be monitored when data are available to ensure that they do not fall below 95%.

Improving Quickly

Through 2012, a number of measures showed rapid improvement, defined as an average annual rate of change greater than 10% per year. Of these measures that improved quickly, four are adolescent vaccination measures (italic).

- *Adolescents ages 16-17 years who received 1 or more doses of tetanus-diphtheria-acellular pertussis vaccine*
- *Adolescents ages 13-15 years who received 1 or more doses of tetanus-diphtheria-acellular pertussis vaccine*
- Hospital patients with heart failure who were given complete written discharge instructions
- *Adolescents ages 16-17 years who received 1 or more doses of meningococcal conjugate vaccine*
- *Adolescents ages 13-15 years who received 1 or more doses of meningococcal conjugate vaccine*
- Patients with colon cancer who received surgical resection that included 12+ lymph nodes pathologically

examined

- Central line-associated bloodstream infection per 1,000 medical and surgical discharges, age 18+ or obstetric admissions
- Women with Stage I-IIb breast cancer who received axillary node dissection or sentinel lymph node biopsy at time of surgery

Worsening

Through 2012, a number of measures showed worsening quality. Of these measures that showed declines in quality, three track chronic diseases (italic). Note that these declines occurred prior to implementation of most of the health insurance expansions included in the Affordable Care Act.

- Maternal deaths per 100,000 live births
- Children ages 19-35 months who received 3 or more doses of Haemophilus influenzae type b vaccine
- People who indicate a financial or insurance reason for not having a usual source of care
- Suicide deaths per 100,000 population
- Women ages 21-65 who received a Pap smear in the last 3 years
- *Admissions with diabetes with short-term complications per 100,000 population, age 18+*
- *Adults age 40+ with diagnosed diabetes who had their feet checked for sores or irritation in the calendar year*
- Women ages 50-74 who received a mammogram in the last 2 years
- Postoperative physiologic and metabolic derangements per 1,000 elective-surgery admissions, age 18+
- *People with current asthma who are now taking preventive medicine daily or almost daily*
- People unable to get or delayed in getting needed medical care, dental care, or prescription medicines due to financial or insurance reasons

QUALITY DISPARITIES: Disparities remained prevalent across a broad spectrum of quality measures. People in poor households experienced the largest number of disparities, followed by Blacks and Hispanics.

Disparities

- People in poor households received worse care than people in high-income households on more than half of quality measures (green).
- Blacks received worse care than Whites for about one-third of quality measures.
- Hispanics, American Indians and Alaska Natives, and Asians received worse care than Whites for some quality measures and better care for some measures.
- For each group, disparities in quality of care are similar to disparities in access to care, although access problems are more common than quality problems.

QUALITY DISPARITIES: Through 2012, some disparities were getting smaller but most were not improving across a broad spectrum of quality measures.

Disparity Trends

- Through 2012, most disparities in quality of care related to race, ethnicity, or income showed no significant change (blue), neither getting smaller nor larger.
- When changes in disparities occurred, measures of disparities were more likely to show improvement (black) than decline (green). However, for people in poor households, more measures showed worsening disparities than improvement.

QUALITY DISPARITIES: Through 2012, few disparities in quality of care were eliminated while a small number became larger.

Disparities Trends

- Through 2012, several disparities were eliminated.
  - One disparity in vaccination rates was eliminated for Blacks (measles-mumps-rubella), Asians (influenza), American Indians and Alaska Natives (hepatitis B), and people in poor households (human papillomavirus).
  - Four disparities related to hospital adverse events were eliminated for Blacks.
  - Three disparities related to chronic diseases and two disparities related to communication with providers were eliminated for Asians.
  - On the other hand, a few disparities grew larger because improvements in quality for Whites did not extend uniformly to other groups.
  - At least one disparity related to hospice care grew larger for Blacks, American Indians and Alaska Natives, and Hispanics.
  - People in poor households experienced worsening disparities related to chronic diseases.

QUALITY DISPARITIES: Overall quality and racial/ethnic disparities varied widely across states and often not in the same direction.

Geographic Disparities

- There was significant variation in quality among states. There was also significant variation in disparities.
- States in the New England, Middle Atlantic, West North Central, and Mountain census divisions tended to have higher overall quality while states in the South census region tended to have lower quality.
- States in the South Atlantic, West South Central, and Mountain census divisions tended to have fewer racial/ethnic disparities while states in the Middle Atlantic, West North Central, and Pacific census divisions tended to have more disparities.
- The variation in state performance on quality and disparities may point to differential strategies for improvement.

National Quality Strategy: Measures of Patient Safety improved, led by a 17% reduction in hospital-acquired conditions.

Hospital-acquired conditions have been targeted for improvement by the CMS Partnership for Patients initiative, a major public-private partnership working to improve the quality, safety, and affordability of health care for all Americans. As a result of this and other federal efforts, such as Medicare's Quality Improvement Organizations and the HHS National Action Plan to Prevent Health Care-Associated Infections, as well as the dedication of practitioners, the general trend in patient safety is one of improvement.

Trends

- From 2010 to 2013, the overall rate of hospital-acquired conditions declined from 145 to 121 per 1,000 hospital discharges.
- This decline is estimated to correspond to 1.3 million fewer hospital-acquired conditions, 50,000 fewer inpatient deaths, and $12 billion savings in health care costs.[11]
- Large declines were observed in rates of adverse drug events, healthcare-associated infections, and pressure ulcers.
- About half of all Patient Safety measures tracked in the QDR improved.
- One measure, admissions with central line-associated bloodstream infections, improved quickly, at an average annual rate of change above 10% per year.
- One measure, postoperative physiologic and metabolic derangements during elective-surgery admissions, got worse over time.

Disparities Trends

- Black-White differences in four Patient Safety measures were eliminated.
- Asian-White differences in admissions with iatrogenic pneumothorax grew larger.

National Quality Strategy: Measures of Person-Centered Care improved steadily, especially for children.

Trends

- From 2002 to 2012, the percentage of children whose parents reported poor communication significantly decreased overall and among all racial/ethnic and income groups.
- Almost all Person-Centered Care measures tracked in the QDR improved; no measure got worse.

Disparities

In almost all years, the percentage of children whose parents reported poor communication with their health providers was:

- Higher for Hispanics and Blacks compared with Whites.
- Higher for poor, low-income, and middle-income families compared with high-income families.

Disparities Trends

[11] Agency for Healthcare Research and Quality. Interim Update on 2013 Annual Hospital-Acquired Condition Rate and Estimates of Cost Savings and Deaths Averted From 2010 to 2013. http://www.ahrq.gov/professionals/quality-patient-safety/pfp/interimhacrate2013.html

- Asian-White differences in two measures related to communication were eliminated.
- Four Person-Centered Care disparities related to hospice care grew larger.

National Quality Strategy: Measures of Care Coordination improved as providers enhanced discharge processes and adopted health information technologies.

Trends

- From 2005 to 2012, the percentage of hospital patients with heart failure who were given complete written discharge instructions increased overall, for both sexes, and for all racial/ethnic groups.
- There are few measures to assess trends in Care Coordination.

Disparities

- In all years, the percentage of hospital patients with heart failure who were given complete written discharge instructions was lower among American Indians and Alaska Natives compared with Whites.

National Quality Strategy: Many measures of Effective Treatment achieved high levels of performance, led by measures publicly reported by CMS on Hospital Compare.

Trends

- From 2005 to 2012, the percentage of hospital patients with heart attack given percutaneous coronary intervention within 90 minutes of arrival increased overall, for both sexes, and for all racial/ethnic groups.
- In 2012, the overall rate exceeded 95%; the measure will no longer be reported in the QDR.
- Eight other Effective Treatment measures achieved overall performance levels of 95% or better this year, including five measures of pneumonia care and two measures of HIV care.
- About half of all Effective Treatment measures tracked in the QDR improved.
- Two measures, both related to cancer treatment, improved quickly, at an average annual rate of change above 10% per year.
- Three measures related to management of chronic diseases got worse over time.

Disparities

- As rates topped out, absolute differences between groups became smaller. Hence, disparities often disappeared as measures achieved high levels of performance.

Disparities Trends

- Asian-White differences in three chronic disease management measures were eliminated but income-related disparities in two measures related to diabetes and joint symptoms grew larger.

National Quality Strategy: Healthy Living improved in about half of the measures followed, led by selected adolescent vaccines from 2008 to 2012.

Trends

- From 2008 to 2012, the percentage of adolescents ages 16-17 years who received 1 or more doses of meningococcal conjugate vaccine increased overall, for residents of both metropolitan and nonmetropolitan areas, and for all income groups.
- About half of all Healthy Living measures tracked in the QDR improved.
- Four measures, all related to adolescent immunizations, improved quickly, at an average annual rate of change above 10% per year (meningococcal vaccine ages 13-15 and ages 16-17; tetanusdiphteria-acellular pertussis vaccine ages 13-15 and ages 16-17).
- Two measures related to cancer screening got worse over time.

Disparities

- Adolescents ages 16-17 in nonmetropolitan areas were less likely to receive meningococcal conjugate vaccine than adolescents in metropolitan areas in all years.
- Adolescents in poor, low-income, and middle-income households were less likely to receive meningococcal conjugate vaccine than adolescents in high-income households in almost all years.

Disparities Trends

- Four disparities related to child and adult immunizations were eliminated.
- Black-White differences in two Healthy Living measures grew larger.

National Quality Strategy: Measures of Care Affordability worsened from 2002 to 2010 and then leveled off.

From 2002 to 2010, prior to the Affordable Care Act, care affordability was worsening. Since 2010, the Affordable Care Act has made health insurance accessible to many Americans with limited financial resources.

Trends

- From 2002 to 2010, the overall percentage of people unable to get or delayed in getting needed medical care, dental care, or prescription medicines and who indicated a financial or insurance reason rose from 61.2% to 71.4%.
- From 2002 to 2010, the rate worsened among people with any private insurance and among people from high- and middle-income families; changes were not statistically significant among other groups.
- After 2010, the rate leveled off, overall and for most insurance and income groups.
- Data from the Commonwealth Fund Biennial Health Insurance Survey indicate that cost-related problems getting needed care fell from 2012 to 2014 among adults.[12]
- Another Care Affordability measure, people without a usual source of care who indicate a financial or insurance reason for not having a source of care, also worsened from 2002 to 2010 and then leveled off.

[12] Collins SR, Rasmussen PW, Doty MM, et al. The Rise in Health Care Coverage and Affordability Since Health Reform Took Effect: Findings from the Commonwealth Fund Biennial Health Insurance Survey, 2014. http://www.commonwealthfund.org/~/media/files/publications/issue-brief/2015/jan/1800_collins_biennial_survey_brief.pdf?la=en

- There are few measures to assess trends in Care Affordability.

Disparities

- In all years, the percentage of people unable to get or delayed in getting needed medical care, dental care, or prescription medicines who indicated a financial or insurance reason for the problem was:
  - Higher among uninsured people and people with public insurance compared with people with any private insurance.
  - Higher among poor, low-income, and middle-income families compared with high-income families.

CONCLUSION

The 2014 Quality and Disparities Reports demonstrate that access to care improved. After years of stagnation, rates of un-insurance among adults decreased in the first half of 2014 as a result of Affordable Care Act insurance expansion. However, disparities in access to care, while diminishing, remained.

Quality of healthcare continued to improve, although wide variation across populations and parts of the country remained. Among the NQS priorities, measures of Person-Centered Care improved broadly. Most measures of Patient Safety, Effective Treatment, and Healthy Living also improved, but some measures of chronic disease management and cancer screening lagged behind and may benefit from additional attention. Data to assess Care Coordination and Affordable Care were limited and measurement of these priorities should be expanded.