

*No Data prior to 2016, based on change of ownership to McLeod Health.

McLeod Health Clarendon



2016 Community Health Needs Assessment

Clarendon County, South Carolina
September 2016

Approved by the McLeod Health Clarendon Community Board August 18, 2016

McLeod Health Clarendon

To the Residents of Clarendon County:

One of the requirements of the Patient Protection and Affordable Care Act is for not-for-profit (501(c)(3) tax-exempt) hospitals to complete a Community Health Needs Assessment (CHNA) every three years. Over the last six months, we have worked on our second CHNA and, on behalf of the Board of Trustees of McLeod Health Clarendon, I am pleased to share it with you.

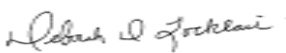
This report:

- Presents an analysis of the health issues facing the residents of Clarendon County
- Incorporates input from a broad base of community leaders, health care experts, and residents of our County
- Discusses the impact of the CHNA completed in 2013
- Assesses the resources available to address key health needs
- Prioritizes responses to the needs
- Outlines an implementation plan to address high priority health care needs to the best of our abilities

Founded in 1951, Clarendon Health System has proudly served the residents of this community for over 64 years. This summer we formally affiliated with McLeod Health and became McLeod Health Clarendon. Becoming a part of this dynamic and high quality organization will greatly strengthen our ability meet the health needs of this community.

The findings in this report will guide and direct our team in determining how to best meet current and future health needs in Clarendon County. On August 17, 2016, this report was approved by the McLeod Health Clarendon Advisory Board (as authorized by the McLeod Health Board of Trustees). Please take time to review and let us know if there are any questions, suggestions or ideas. You may submit your comments by mail to Administration, McLeod Health Clarendon, P. O. Box 550, Manning, SC 29102.

Sincerely,



Deborah D. Locklair
Chief Executive Officer of McLeod Health Clarendon

**McLeod Health Clarendon
2016 Community Health Needs Assessment
Table of Contents**

Introduction	1
Study Methodology	1
Clarendon Health System Service Area	2
Clarendon County Demographic Profile	2
Population Level	2
Age & Sex Distribution	3
Racial mix.	3
Population Density.	3
Population Stability	3
Education Level	4
Household Size and Income Level	4
Health Statistics for Clarendon County (Data Analysis)	4
Patient Use of Local Services	4
Top Reasons for Hospitalization.	5
Rate of Hospitalization	5
Leading Causes of Death	5
Morbidity and Mortality	6
Obesity.	6
Input from Health Experts and Community Leaders	7
1. Socio-demographic Needs	7
2. Health Literacy	8
3. Chronic Disease Information	8
4. Hospital Services and Care	8
Community Input	9
Impact of Actions Taken Based on the 2013 CHNA	10
High Priority Healthcare Issues (Prioritization)	13
Resources available to address the Issues (Inventory)	14
Health Improvement Action Plan	15
1. Cardiovascular Disease.	15
2. Respiratory Related Illnesses.	15
3. Diabetes	16
4. Obesity Awareness	16
5. Healthy Minds	16
6. Access to Care	16
Unaddressed Healthcare Issues.	17
Follow-up.	17
References	18
Appendices	19

Introduction

McLeod Health Clarendon appreciates the efforts of everyone involved in this study: the members of the Community Health Needs Assessment Steering Committee, consultants with Strategic Directions, Inc., Clarendon County Community leaders and residents, and McLeod Health Clarendon's Medical Staff who assisted in the development and preparation of this second Community Health Needs Assessment (CHNA).

The Steering Committee included:

- Pam Flagler, Quality and Case Management Director, Chair
- Deborah D. Locklair, Chief Executive Office
- Shawn Brennan, Rehab Services & Wellness Director
- Kathy Cheek, Health Outcomes Coordinator
- Betty Dukes, Cardiac Rehab Director
- Jeffery Hale, Dietitian
- Karen Hilton, Wellness Supervisor
- Debra Mixson, Accreditation, Lean Strategic Planning
- Denise J Melton, Home Health Director
- Catherine Rabon, MD, Chief Medical Officer
- Deborah Russ, Community Liaison, ED Discharge Planner
- Steven Scurry, RN, EMS Director
- Carrie Anna Strange, Cypress Foundation Director
- Amanda Taylor, Infection Control & Employee Health Nurse
- Sam Tolbert, Strategic Directions Inc. (Consultant)
- Peggy Johnson, PhD, Strategic Directions Inc. (Consultant)
- Daniel Clark, Strategic Directions Inc. (Analyst)

Study Methodology

The Patient Protection and Affordable Care Act requires every hospital holding IRS 501(c) (3) tax-exempt status to complete a CHNA every three years. Essentially, this covers all not-for-profit, non-governmental hospitals in the United States, which includes McLeod Health Clarendon. Guidelines published by the IRS were followed in completing this study. Our methodology included:

- Defining McLeod Health Clarendon's service area
- Compiling and analyzing data on the health needs and health services utilized by the residents of Clarendon County and the action taken based on the 2013 CHNA
- Gathering input from persons representing the broad interests of the community served by McLeod Health Clarendon, including those with special knowledge of, or expertise in public health; using focus groups, surveys, and guided interview questions
- Determining and prioritizing major health issues
- Taking inventory of the healthcare resources available to the residents of Clarendon County
- Creating an action plan to address those high priority health needs where outcomes can be impacted.

Clarendon Health System Service Area

McLeod Health Clarendon is an 81-bed hospital located in Manning, South Carolina, and the only hospital located within Clarendon County.

From 2004 through 2012, an average of 70% of the hospital’s inpatients were residents of Clarendon County. Between 2012 and 2014, the percent increased to an average of 76%. In 2014, 76% of McLeod Health Clarendon inpatients were from Clarendon County, 13% were from Sumter County, and another 6% were from Williamsburg County. The final 5% were from other counties. Appendix 1 provides more detail year-by-year. (Data for 2015 was not available at the time of this study.)

Since over 75% of McLeod Health Clarendon patients are in Clarendon County, the County is considered its primary service area and this report focuses on the health needs of Clarendon County residents.

The following State map (Figure 1) locates Clarendon County within the State and Figure 2 provides a detail map of the County showing its major roads and towns.

*State of South Carolina
with Clarendon County highlighted:*

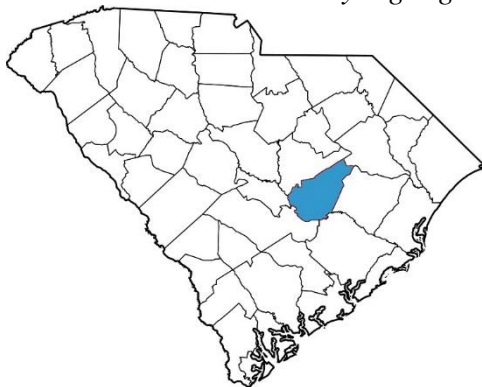


Figure 1

Clarendon County:

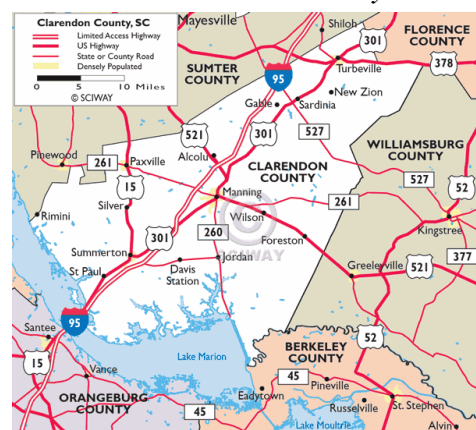


Figure 2

Clarendon County Demographic Profile

Appendix 2 presents a full summary of the sociodemographic statistics for Clarendon County, which is summarized below.

Population Level. The 2015 Bureau of Census projections show a decline in population at a rate of 3.4% since the 2010 Census.

Table 1

POPULATION	CLARENDON	SOUTH CAROLINA	USA
Population, 2015 estimate	33,775	4,896,146	321,418,820
Population, 2010	34,971	4,625,364	308,747,508
Population, percent change, 2010-2015	-3.4%	5.9%	4.1%

This decline in County population in the past 5 years does not correlate with population statistics for the State, which has seen a population increase of 5.9% over the same time period.

Age & Sex Distribution. The proportion of Clarendon County population over the age of 65 years has increased by 2.6% since the 2010 Census, while the percentage of persons under 18 years has decreased by 1.4%. These changes indicate that Clarendon County is following the national trend of an aging population.

Table 2

AGE & SEX DISTRIBUTION	CLARENDON	SOUTH CAROLINA	USA
Persons under 18 years, percent, 2014	20.4%	22.4%	23.1%
Persons 65 years and over, percent, 2014	19.8%	15.8%	14.5%
Female persons, percent, 2014	50.7%	51.4%	50.8%

McLeod Health Clarendon should note that an increasingly aging population usually means a population with more chronic healthcare issues and an increasing need for healthcare services. McLeod Health Clarendon should continue to focus on the needs of an aging population.

Racial mix. In Clarendon County, 48.7% of residents are African American. This percentage has decreased slightly since 2010. However, it is still notably higher than the State average of 27.8%. The higher percentage of African American residents may be indicative of a higher disease burden for hypertension, stroke, and diabetes.

Table 3

RACIAL MIX	CLARENDON	SOUTH CAROLINA	USA
White persons, percent, 2014 (a)	49.4%	68.3%	77.4%
Black persons, percent, 2014 (a)	48.7%	27.8%	13.2%
All Other (including two or more races)	1.9%	3.9%	9.4%
(a) Includes persons reporting only one race			

Population Density. Clarendon County is 607 square miles and is a rural area with a population density of 57.6 persons per square mile. The population density for the county is much lower than the State average of 153.9. This distinctive feature can present transportation challenges to residents needing healthcare services.

Population Stability. The population data shows 86.9% of Clarendon County residents have lived in the same house for at least one year. Clarendon County has a more stable population with long term commitment to the community and a deeply rooted family structure than is the average for the state of South Carolina. The continuing population stability provides McLeod Health Clarendon the opportunity for increased patient care continuity and an understanding of the health care needs of this population.

Table 4

POPULATION STABILITY	CLARENDON	SOUTH CAROLINA	USA
Living in same house 1 year & over, percent, 2010-2014	86.9%	84.5%	85.0%
Homeownership rate, percent, 2010-2014	71.8%	68.6%	64.4%
Foreign born persons, percent, 2010-2014	1.6%	4.8%	13.1%

Education Level. The percentage of persons 25 years of age or older with a high school or higher education level (78.8%) is significantly lower than the state average (85.0%) or national average of (86.3%). The percentage of persons having a bachelor or higher college degree is at 13.6% for Clarendon County compared to 25.3% statewide.

Table 5

EDUCATION LEVEL	CLARENDON	SOUTH CAROLINA	USA
High school graduate or higher, percent of persons age 25+, 2010-2014	78.8%	85.0%	86.3%
Bachelor's degree or higher, percent of persons age 25+, 2010-2014	13.6%	25.3%	29.3%

The healthcare system of 2016 has an expectation that patients and their families are knowledgeable consumers of health care services. The lower level of education in Clarendon County presents challenges for the healthcare delivery system.

Household Size and Income Level. Household size has decreased from 2.73 to 2.57 for Clarendon County since the 2010 Census and is close to the South Carolina average. As far as income level, the county has significantly lower per capita income and median household income compared to the state averages. The county poverty level is also 9% above the poverty level of South Carolina as a whole.

Table 6

HOUSEHOLD SIZE & INCOME LEVEL	CLARENDON	SOUTH CAROLINA	USA
Households, 2010-2014	12,768	1,795,715	116,211,092
Persons per household, 2010-2014	2.57	2.56	2.63
Per capita income in the past 12 months (2014 dollars), 2010-2014	\$17,517.00	\$24,222.00	\$28,555.00
Median household income, 2010-2014	\$32,243.00	\$45,033.00	\$53,482.00
Poverty level, percent, 2010-2014	27.0%	18.0%	14.8%

The high poverty level and economic status of the residents of Clarendon County clearly creates challenges for many residents who are uninsured or under insured and face financial barriers in accessing healthcare services.

Health Statistics for Clarendon County (Data Analysis)

Patient Use of Local Services. McLeod Health Clarendon analyses of inpatient (acute) hospital discharges, Emergency Department visits, and outpatient surgeries indicate that many patients leave the County for services. In 2014, 61% of residents discharged from hospitals received care outside of Clarendon County. The percent of patients leaving the County for outpatient surgery in 2014 was 75%. For ED visits, many fewer residents leave the County, averaging 24% from 2012 to 2014. (See Appendix 3 for more detail).

McLeod Health Clarendon is a smaller primary care hospital, and therefore many patients seek specialty care in larger hospitals outside the county. Since there are only 2 general surgeons in Clarendon County, patients are often referred to specialists and specialty surgeons outside of the county.

Top Reasons for Hospitalization. The top 10 reasons for inpatient hospitalization for Clarendon County residents relative to all of South Carolina are shown in the table below.

Table 7

2014 Top Reasons for Inpatient Hospitalizations						
	Primary Diagnosis	Clarendon County		Primary Diagnosis	South Carolina	
		Discharges	% of Total		Discharges	% of Total
1	Septicemia	233	5.3%	Septicemia	22083	4.7%
2	Heart Failure	192	4.4%	Osteoarthritis	15326	3.3%
3	Diabetes Mellitus	126	2.9%	Heart Failure	15234	3.3%
4	Pneumonia	118	2.7%	Cardiac Dysrhythmias	11155	2.4%
5	Osteoarthritis	117	2.7%	Pneumonia	10698	2.3%
6	Acute Renal Failure	116	2.6%	Diabetes Mellitus	10414	2.2%
7	Acute Myocardial Infarction	112	2.6%	Acute Renal Failure	9937	2.1%
8	Cardiac Dysrhythmias	88	2.0%	Acute Myocardial Infarction	9671	2.1%
9	Other Pregnancy Issues	85	1.9%	Chronic Bronchitis	9350	2.0%
10	Chronic Bronchitis	80	1.8%	Other Pregnancy Issues	8813	1.9%

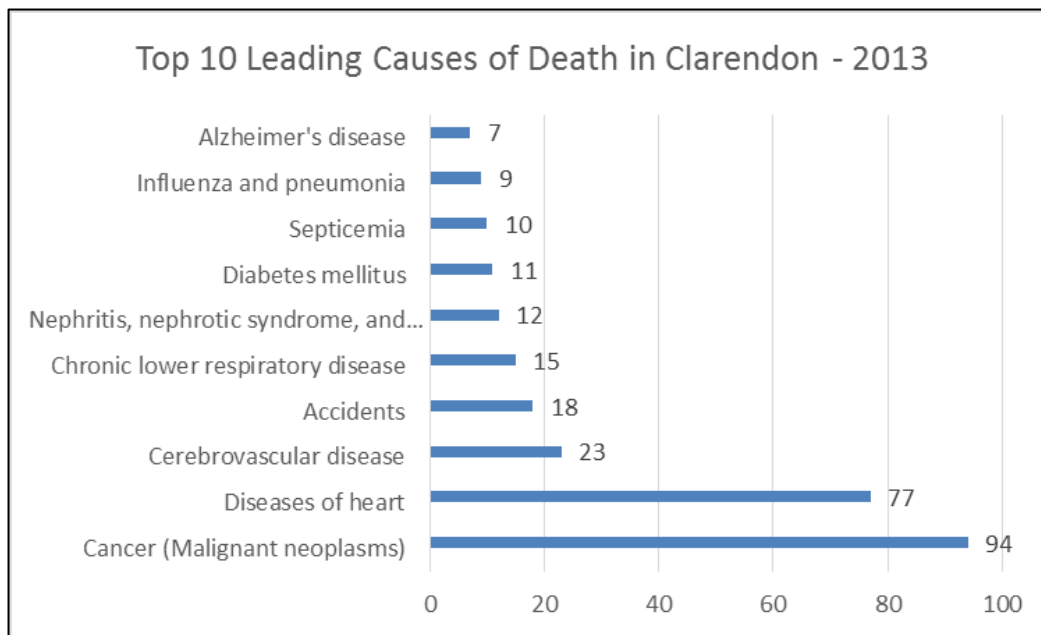
Rate of Hospitalization. The most recent crude rate of hospitalization identifies heart disease, stroke, and chronic lower respiratory disease as the highest contributors to hospitalization by County residents, followed by cancer and diabetes. This data is supported with the State total of deaths.

Table 8

2013 Crude rate of hospitalizations (per 100,000)	Clarendon County					State Total	County Deaths
	Total	Blacks	Whites	Males	Females		
Heart Disease	1656	1574	1700	2001	1323	1064	77
Stroke	498	478	528	527	470	313	23
Chronic Lower Respiratory	489	525	457	539	441	328	15
All Cancers	457	371	539	444	470	296	94
Diabetes	399	584	182	385	412	204	11
Hypertension	172	307	35	136	206	112	8

Leading Causes of Death. The leading causes of death identified for the County are consistent with data previously discussed. Cancer and diseases of the heart continue to lead the top ten causes by a large margin in comparison to other noted illnesses.

Table 9



Morbidity and Mortality. 2015 county health rankings from the Robert Woods Johnson Foundation provide numerous significant statistics, some of which provide insight into the morbidity and mortality rates within the County relative to the State.

Table 10

Health Outcomes	Clarendon	SC
Length of Life		
Premature death	8,821	8,281
Quality of Life		
Poor or fair health	21%	16%
Poor physical health days	3.7	3.6
Poor mental health days	3.8	3.7
Low birthweight	11%	9.90%

Premature deaths are reported in years of potential life lost before age 75 per 100,000 population (age-adjusted). Clarendon County's premature death rate has decreased tremendously in the past 3 years, from 11,113 in 2012 to 8,821 in 2015. Residents of Clarendon County reported poor physical health 3.7 days per month and 3.8 poor mental health days per month. These numbers have increased slightly in recent years. Clarendon County's physical and mental health days are very much in line with those of the state. Compared to the state data Clarendon County has a higher rate of low birthweight babies.

Obesity. Another major health issue is obesity, which is also a significant problem at the state and national level. Obesity has recently been classified as a disease state. Obesity contributes to a number of diseases and complications for adults and children.

Table 11

Nutrition, Physical Activity, and Obesity - Clarendon County 2013			
Children (Age 2-17)	Clarendon	SC	US
Overweight (BMI 85th-95th percentile)	18.3%	14.9%	-
Obese (BMI > 95th percentile)	21.2%	16.7%	-
60 mins or more of physical activity daily	24.9%	28.2%	-
Adults (Age +18)			
Overweight (BMI 85th-95th percentile)	30.9%	34.0%	35.4%
Obese (BMI > 95th percentile)	36.0%	31.8%	29.4%
60 mins or more of physical activity daily	40.6%	41.1%	49.9%

The information provided in table 11 supports the conclusion that obesity is a significant problem in Clarendon County. The obesity rate of children in Clarendon County is at 21.2%, compared to a significantly lower 16.7% at the state level. The obesity rate of adults in Clarendon County is also higher than the South Carolina average at 36.0% compared to the state average of 31.8%.

Appendix 4 presents additional data regarding health outcomes and factors.

Input from Health Experts and Community Leaders

Interviews and focus groups were conducted with a number of local health experts, community leaders, and members. All participants completed a survey and the focus groups were conducted using an interview guide (Appendix 5), so each would cover in a structured way the following topics:

- Socio-demographic needs
- Health literacy
- Chronic disease information
- Hospital services and care

The key points and areas of consensus from the interviews are summarized as follows:

1. Socio-demographic Needs

The people of Clarendon County face many of the same challenges of other rural communities within the state. The high rate of unemployment, an aging population, and a poverty rate at 27% creates both economic and social problems for the county. Often these financial hardships inhibit the patient's capacity to seek healthcare in a timely manner, and can contribute to a higher than average disease burden in the country for cancer, heart disease, stroke, diabetes and obesity.

In regard to the distinct populations and large numbers of minority residents, there are no specific health needs identified as unmet. The elderly and low income residents often have trouble with transportation to and from medical appointments, both inside and outside the

county. Transportation resources are extremely limited, but do exist for specific populations such as Medicaid and Medicare recipients.

The income and education levels of residents in the county are significantly lower than the state average and hinder opportunities for growth of the community and employment for residents.

Two of the significant findings of the CHNA were that 61.5% of the births in the county in 2014 (latest statistics) were to single mothers and 51.1% of children live in single parent households. There is also a growing prevalence of substance abuse in the county, which may account for the fact that violent crime in Clarendon greatly exceeds the rate of violent crime for the state.

2. Health Literacy

The lack of awareness of basic health information is a primary concern for the elderly, minority, and low income population. Health problems are exacerbated due to re-occurring issues attributed to communication barriers, lack of information comprehension, and limited follow up for disease management. Historically, health initiatives have been poorly attended resulting in lost opportunities to improve health outcomes for the county. Health education was identified by all CHNA participants as an unmet need.

Prevention and education programs in schools and community groups continue to be offered by McLeod Health Clarendon and other groups in the hope of bringing additional awareness to key issues like substance/alcohol abuse, pregnancy prevention, prenatal care and chronic disease management. Several interview participants and focus groups acknowledged the high percentage of cancer in the area.

3. Chronic Disease Information

Community leaders and community members who were interviewed and the five focus groups identified specific health issues that need to be addressed as: heart disease, cancer, diabetes, obesity, and alcohol and substance abuse. Additionally, residents who do not consistently seek treatment for their health problems often frequent the Emergency Department for non-emergent care. The ED serves as a safety net for many county residents who are uninsured or underinsured, and this issue is exacerbated by the shortage of primary care physicians. Expanded disease management programs, as well as, specialty services such as psychiatry, dermatology and nephrology would prove beneficial. The county meets federal guidelines for status as an underserved population due to the physician shortage. Clarendon County has a large number of tobacco users and programs to aid cessation of use are also needed.

4. Hospital Services and Care

According to the estimates of the those interviewed and the focus groups, a significant number of patients leave the county for both primary and specialty care; which is substantiated by the statistics on market share. The primary concern of residents regarding hospital care, according to those interviewed, involves streamlining the Emergency Department services to reduce patient wait times. Additionally, focus groups #1 and #2 noted

that physicians in the county were not part of the community and that physician turnover makes continuity of care difficult for many residents. Contributors to the lack of efficiency in the Emergency Department could be due to a lack of physicians available to service in coming patients and patients who utilize the Emergency Department for non-emergent healthcare needs in lieu of seeing a primary care physician. The more recent addition of an outpatient emergent care clinic has alleviated some strain on the Emergency Department. Some interview participants would like stronger efforts in bringing more doctors (specialist) to the County and expressed the hope that the transition to McLeod's healthcare organization would address these issues and decrease the outmigration to other counties for surgical procedures and specialty care needs.

Community Input

Focus groups and individual interviews with community leaders and representatives of minority groups and underserved populations were an important part of this study. All focus group members and individuals completed a survey that is included in Appendix 6. Highlights of the survey results and the group discussion are:

1. Five focus groups were conducted. The five groups provided a diverse sample of respondents from the community. A list of all focus group participants and individuals surveyed is provided in Appendix 7.
2. Some residents use a local primary care physician for non-emergency and preventative treatment; however, those who prefer to seek primary care outside the county must travel between 30 minutes to one hour for care. The major reason for utilizing out of county primary care services is due to the location of specialty physicians and the perceived higher quality of care. All five focus groups indicated that access to health care for low income and elderly residents of Clarendon County is impacted by the very limited access to public transportation. Additionally, Urgent Care is available, but not utilized by poor residents due to the fact they must pay prior to services being delivered. Focus groups #1 and #4 mentioned telehealth as a possible solution to physician shortages and as an outlet for health education.
3. The groups also noted that there is a dental program for children through the school system, but no dental care access for low-income and special needs adults. However, the CHNA Committee determined dental care is available to both low-income and special needs adults through services provided by Hope Health and by Dr. Grover Rabon in Sumter, SC.
4. The mental health clinic is overwhelmed and wait times are long and there is also a lack of providers for medical, dental, and mental health services. The waiting list for drug and alcohol treatment is long and services are not adequate for the growing substance abuse problem in Clarendon County according to focus group #4.
5. Focus groups and individuals were asked to assess the county's ability to support healthy lifestyles. There is a general consensus from all focus groups and individuals interviewed of the need for health education to address issues of unhealthy lifestyle choices, such as the 22% smoking rate in the county, the 36% obesity rate in adults, and the 21% obesity rate for children in Clarendon County.

6. In assessing the ability of the county to support healthy food choices, focus groups #1-4 noted that healthy food supplies are limited outside Manning due to the absence of grocery stores in other communities in the county. Food banks were available in several communities on a limited basis. Focus group #5 noted that healthy food options are often too expensive compared to fast food. Focus group #3 indicated that the EBT program should include education on healthy food choices.
7. Considering the ability of the community to support recreation and physical activity as aspect of healthy lifestyles, all focus groups reported inadequacy in this area. Focus group #1 stated there are parks in Manning, but not throughout the county. There are no gyms, but some county recreation leagues are available. Focus group #5 noted that there are no parks throughout the county. The opportunities that exist are not fully utilized by low-income residents due to lack of transportation. In the report review by the Advisory Board, one member noted the County does have three major recreational parks – one each in Manning, Summerton, and New Zion. (See Appendix 8.)
8. All focus groups agreed that disaster planning and emergency management is adequate in Clarendon County. Focus group #2 stated they were impressed with last year's disaster response.
9. In regards to the biggest health needs facing residents in the county, participants overwhelming rated the need for health education and the lack of physicians and specialty services as the primary health needs. When asked about how to improve the existing health care services, the addition of several specialty services were referenced including primary care, cardiology, urology, psychiatry, and dermatology. Additionally, focus group #5 suggested that access and transportation are huge issues in the county, with access impacted by the problems of residents being uninsured and underinsured.
10. A large percentage of survey respondents seek medical or health related services at the local hospital due to the convenience and close proximity. However, many respondents acknowledge utilizing health services in neighboring counties due to their relationship with an existing specialist.
11. Overall, the respondents believe the health care needs of the county could be addressed more effectively with suggested changes. Participants from the focus groups acknowledged that the new structure of the hospital and the initiatives being implemented will improve the quality of care within the county.

Impact of Actions Taken Based on the 2013 CHNA

The 2013 CHNA was prepared by Clarendon Health System prior to its affiliation with McLeod Health, which occurred this summer. The health issues and action planned refer to Clarendon Health System and the current status uses McLeod Health Clarendon as the organization.

- 1. Cancer.** This is the leading cause of death in Clarendon County. Currently, infusion therapy and radiation treatment require travel outside the County. Clarendon Health System recognizes this creates a significant burden and inconvenience for patients and families undergoing cancer treatment.

Action Planned: Clarendon Health System is currently in the process of recruiting an Oncology Practice with 2 physicians. This group will provide chemotherapy and infusion services to the residents one day per week.

Status: As far as the action plan to address the high disease burden of cancer in Clarendon County, during 2014 all Infusion Center nursing staff and pharmacists have obtained Chemotherapy Certification. The addition of equipment in the pharmacy for the use of chemotherapy agents makes the preparation complete. Recruiting of providers to manage onsite chemotherapy is still in progress. These improvements make it possible for McLeod Health Clarendon patients receiving chemotherapy to have access to this treatment locally. Recruitment of oncologists was not successful, unfortunately.

2. Cardiovascular Disease. This is the second leading cause of death and, thus, a major health issue.

Action Planned: As part of Clarendon Health System's expanded physician recruitment plan, one additional cardiologist will be added as an affiliated agreement with one of the state's premier cardiac programs. Additionally,

- Participation in the CHF outpatient program will be expanded to all include all patients regardless of ability to pay.
- A newly revamped marketing campaign will include additional community education classes facilitated by the hospital dietician.
- A new software program will be implemented into the home health program to evaluate cardiovascular risk factors.
- Improved community education by incorporating Access Health televisions into primary care and emergency room settings.

Status: The McLeod Health Clarendon Cardiac Rehab Program is now offering outpatient services to all hospitalized patients with a cardiovascular diagnosis. The impact has been to help patients understand their disease process better and the goal is to help cardiac patients comply with their treatment plans and become partners in maintaining their health. Heart Healthy classes are offered to these patients, as well as the community, free of charge on a quarterly basis. Cardiovascular Risk assessments have been implemented for all patients served by McLeod Health Clarendon Home Health nurses and the majority of McLeod Health Clarendon Community Clinic offices have Access Health televisions to provide education on chronic disease management. These improvements in the Cardiac Rehab Program will eventually decrease re-hospitalization rates and the need for further surgeries. The outcome measures that provide evidence of improvement in the heart health of the patients in this program will be available in time.

3. Respiratory Related Illnesses. Clarendon Health System acknowledges the need to reduce lung related incidences in the county. Part of the efforts will be focused on strengthening smoking cessation education efforts within Clarendon County.

Action Planned: The Clarendon Health System campus is a "smoke-free" campus.

- More stringent efforts will be implemented to enforce the no-smoking policy, to include removing all smoking stations on the campus.

- Additional smoking cessation classes will be offered to hospital employees and community residents.
- The existing wellness program will be expanded with consideration given to discounting rates for employees joining.

Status: Smoking cessation education continued to be provided through 2015, but stopped then due to the loss of a certified instructor. In October 2015, smoking cessation medications were added to the formulary for the McLeod Health Clarendon employee insurance plan. The Employee Wellness Program promotes smoking cessation within the McLeod Health Clarendon employee population. Membership drives for “The Zone” fitness center continue to occur each Fall & Spring. Reduction in employee and community smoking rates will continue to be monitored to assess the effectiveness of this program.

4. Obesity Awareness. Clearly, this is a national issue that affects the health of individuals in many negative ways and is a major health problem in Clarendon County.

Action Planned: Clarendon Health System realizes there are many efforts geared towards increasing awareness and knowledge for patients and county residents.

- Role of the hospital dietitian will be expanded to include more community education sessions.
- Hospital staff will conduct a membership drive with The Zone to encourage more exercise.
- Implement Healthy Meal Plan options for Home Health patients and Cardiac Rehab patients.
- Revamp the hospital’s cafeteria plan to adopt a health options daily menu choice and portion control alternative.

Status: Although the obesity rate for Clarendon County residents continues to escalate, in response, the McLeod Health Clarendon dietitian continues to offer education to inpatients, outpatients and community residents on the following topics: weight loss, portion control, hypertension & diet, cholesterol & diet, and diabetes & diet. Community classes are held 6 times per year with ongoing inpatient and outpatient education as patients present. McLeod Health Clarendon cafeteria has implemented a “recipe rehab” and has revised all current recipes to promote the lowest sugar, fat and salt content possible. The initiative not only encourages healthy eating within the McLeod Health Clarendon organization, but promotes the same wellness habits within the community, as numerous residents utilize the cafeteria daily. The cafeteria also offers “ready to go meals” as pre-packaged, portion controlled healthy options for those on the go.

5. Diabetes. Healthcare providers indicate many diabetic patients are non-compliant with directives from primary care physicians, fail to keep scheduled appointments, and/or do not take medications as prescribed. This greatly impacts the health of patients and by decreasing the effectiveness and efficiency of the health delivery system.

Action Planned: Clarendon Health System will recruit a diabetic educator to conduct community classes on medication compliance. Also, Clarendon Health System will institute an outpatient follow-up process through the primary care practices and the hospital will assign a clinician to conduct patient follow-up calls upon discharge.

Status: McLeod Health Clarendon has also implemented an employee health wellness program with various opportunities for staff members to exercise, participate in education and incentive programs that promote wellness among the healthcare team. Participation in these programs continues to grow, both with employees and community members. These efforts also help address the Diabetes problem in Clarendon County. McLeod Health Clarendon dieticians continue to provide education to inpatients and the community. These classes occur 6 times per year and as needed for inpatients. McLeod Health Clarendon has not been able to secure a Diabetic Nurse Educator for our community, but do continue to look for a provider in this role. These combined efforts will hopefully decrease the number of complications from diabetes in the future and that outcome will be tracked on an annual basis.

6. Ability to Pay for Medical Treatment. While Clarendon Health System cannot address the individual healthcare burdens of residents of the County; the hospital provides a significant amount of unfunded care to patients at the hospital. No one has ever been denied care for emergency medical care.

Action Planned: Clarendon Health System is working with a third party group to qualify non payers and uninsured patients for additional patient assistance. The hospital will work with the rural health clinic to evaluate resources to ensure health needs are being met. Also, as part of a required Proviso; Clarendon Health System will evaluate the uninsured seen through the Emergency Department for program eligibility. This will be an ongoing monitoring process.

Status: Concerning the action plan to address the uninsured and under insured in Clarendon County, all patients that are not currently covered by insurance plans are screened by a financial counselor who has training in the Affordable Care Act Marketplace options. Persons identified as eligible for any plans are assisted with the application process or referred to those within that system that can assist with the application process. If patients are not eligible for coverage or refuse coverage, they are offered a payment plan to allow for gradual payment of the expenses associated with their medical care. Hospital and home health patients are screened for charity eligibility and provided with financial counseling as appropriate.

High Priority Healthcare Issues (Prioritization)

The Steering Committee has identified the following healthcare issues as a high priority for Clarendon County:

- Coronary heart disease
- Respiratory related illnesses
- Diabetes
- Obesity
- Mental health
- Access to care
- Transportation
- Cancer treatment services

The prioritized health issues were determined by the Committee through review of the data, comments from healthcare experts, and input from the focus groups. The Committee was especially sensitive to input relating to underserved groups.

Resources available to address the Issues (Inventory)

McLeod Health Clarendon. McLeod Health Clarendon seeks to be the choice for medical excellence for residents of Clarendon County utilizing a dedicated medical staff, highly trained nurses and caregivers, advanced technology and equipment in a modern facility. In 1951 Clarendon Memorial Hospital opened as an acute care hospital with a medical staff of general practitioners and one general surgeon. Today, it has grown to be more than just a community hospital with choices ranging from primary to specialty care including mid-level providers, as well as, dozens of services to meet the community’s health and wellness needs. This summer Clarendon Health System affiliated with McLeod Health System based in Florence and became McLeod Health Clarendon.

McLeod Health has been serving the residents of both South and North Carolina for more than a century. Affiliation with McLeod Health will allow the residents of Clarendon and surrounding counties access to a network of hospital systems, specialty providers, and other health services that will provide disease prevention and management, as well as, health & wellness.

Commitment to care that is physician-led and evidence-based makes McLeod Health one of the nation’s leading healthcare providers, thus allowing residents of this area to benefit from the expertise as a part of their hometown healthcare system at McLeod Health Clarendon.

McLeod Health Clarendon provides the following list of services to residents of Clarendon County and surrounding areas: cardiology, general surgery, orthopedics, urology, obstetrics and gynecology, skilled nursing facilities, geriatrics, primary care, laboratory, outpatient rehabilitation, infusion therapy, radiology & digital imaging, respite care, cardiac rehabilitation, home health, durable medical equipment, EMS, Cypress Transport, pharmacy, podiatry, and wellness.

Physicians and Other Healthcare Professionals. As of 2014, Clarendon County reported the following number of medical practitioners, servicing residents in the county:

Table 12

Physicians in 2014 (based on Primary Practice Location)	Clarendon	SC
Total Physicians	37	11,373
Family Medicine	11	1,807
Internal Medicine	3	1,345
Obstetrics/Gynecology	4	565
Pediatrics	5	835
General Surgery	2	438
All Other Physicians (Specialist)	10	6,108
Physicians Per 10,000 Population	10.5	24.1
Primary Care Physicians per 10,000 pop	6.7	9.6
Federal Physicians	0	275

Other Health Care Resources. There are limited number of other health care resources due the smaller population in Clarendon County. Other resources provided to County residents include services offered by the SC Department of Health and Environmental Control, SC Department of Mental Health, the Council on Aging, and the Hope Health Clinic.

Health Improvement Action Plan

McLeod Health Clarendon proposes the following implementation and action plan based on the identified healthcare issues. The implementation of these initiatives will greatly enhance the overall health and well-being of Clarendon County residents. The implementation goals do not cover all health needs, but do cover the areas of direct impact identified and supported by the research presented.

McLeod Health Clarendon proposes the following implementation and action plan based on the prioritized healthcare issues identified by this needs assessment. The implementation of these initiatives will greatly enhance the overall health and well-being of Clarendon County residents. The implementation goals do not cover all health needs but does cover the areas of direct impact identified and supported by the research presented.

1. Cardiovascular Disease. This is the second leading cause of death in Clarendon County and, thus, a major health issue.

Action Planned and Resources Needed:

- Implement a more robust referral process for patients seen in the inpatient and outpatient setting by utilizing Cardiovascular Care Providers within the health system as well as utilizing the local Cardiac Rehab and Home Health programs in the area.
- Provide more health education through various mediums to promote healthy life styles through disease management, diet and nutrition, physical activity, smoking cessation and disease prevention.
- Improve continuum of care for patients through collaborative provision of care in the outpatient clinic, primary care settings, and hospital inpatient care in an effort to reduce readmissions or ED visits for cardiac disease exacerbations.

Implementation Timeline: 12-18 months

2. Respiratory Related Illnesses. As the 5th leading cause of death in Clarendon County the need to reduce lung related incidences efforts will be focused on:

Action Planned and Resources Needed: The campus is a “smoke-free” campus.

- Promote more intense health education through various mediums to promote healthy life styles through disease management, diet and nutrition, physical activity, smoking cessation and disease prevention.
- Resume smoking cessation program offered to community residents.
- Improve the continuum of care for patients through collaborative outpatient clinic, primary care provider and hospital inpatient setting in an effort to reduce readmissions or ED visits for respiratory disease exacerbations.

Implementation Timeline: 12-18 months

- 3. Diabetes.** Healthcare providers indicate many diabetic patients are non-compliant with directives from primary care physicians, fail to keep scheduled appointments, and/or do not take medications as prescribed. This greatly impacts the health of patients and decreases the effectiveness and efficiency of the health delivery system.

Action Planned and Resources Needed:

- Explore opportunities to add certified diabetic educator to hospital staff.
- Promote health education through various mediums to promote healthy life styles through disease management, diet and nutrition, physical activity, smoking cessation and disease prevention.
- Provide improved alignment of uninsured, financially burdened patients with medication and diabetic supply assistance programs.
- Improve continuum of care for patients through collaborative outpatient clinic, primary care, and hospital inpatient care in an effort to reduce readmissions or ED visits for diabetes related disease exacerbations.

Implementation Timeline: 12-18 months

- 4. Obesity Awareness.** Clearly, this is a national issue that affects the health of individuals in many negative ways and is a major health problem in Clarendon County.

Action Planned and Resources Needed:

- Expand community education sessions to be provided in multiple locations throughout the county so that all residents have the opportunity to participate.
- Promote existing exercise / fitness opportunities in the county. Appendix 8 presents public recreational resources provided by Clarendon County.
- Provide dietitian education sessions for inpatients related to weight control through healthy eating habits.
- Explore options for Healthy Eating education within the local schools throughout the county and coordination with existing DHEC programs.

Implementation Timeline: 12-18 months

- 5. Healthy Minds.** Clarendon County residents reported that 3.8 days out of the month they feel poorly due to sad thoughts, feelings or mental stress/fatigue. Other data reflect significant problems with mental health issues and substance abuse.

Action Planned and Resources Needed:

- Explore offering community education programs related to mental health and substance abuse.
- Provide support to faith-based, 12-step, and other community support groups.

Implementation Timeline: 12-18 months

- 6. Access to Care.** Clarendon County has no mass public transportation system and many patients face difficulties in traveling to obtain health care services. In an attempt to provide care to those in remote areas or to those unable to travel out of the county for specialty care we propose:

Action Planned and Resources Needed:

- Investigate the feasibility of creating a system to make home visits using para medicine unit(s) that visit chronic disease populations at risk for non-compliance due to transportation challenges. The initial visit will be within 72 hours of inpatient discharge, then at least weekly for 30-days post hospital discharge, then bi-weekly for 30 days, and then monthly for 30 days.
- Expand local specialty availability by utilizing space on the McLeod Health Clarendon campus for part-time clinics. Examples may include: endocrinology, pulmonology, urology, dermatology, and ENT.

Timeline:

- Para medicine program will require funding and planning -- 18-24 months
- Visiting Specialists -- 6-12 months

Unaddressed Healthcare Issues. Unfortunately, McLeod Health Clarendon is not able to address all of the healthcare issues identified in this study.

- **Transportation.** Clarendon County has no mass public transportation system and many patients face difficulties in traveling to obtain health care services. McLeod Health Clarendon recognizes there are medical transportation choices available to residents and a program provided through the Santee Lynches services, but obstacles still exists for many residents who need transportation for healthcare appointments inside and outside of the County. Numerous groups, state and federal grants, have attempted to address the transportation issue with little to no impact.
- **Cancer.** Cancer is a major health issue, but is not addressed with a specific action plan. However, McLeod Health Clarendon will include cancer prevention and awareness in its health education offerings. The lack of success in recruiting oncologists severely limits what the organization can do in terms of enhanced services. Hopefully, the resources available from McLeod Health will allow new avenues to be pursued especially in the area of chemotherapy.

Follow-up. McLeod Health Clarendon will annually provide an update regarding its progress to address health needs as noted in this document by publishing a report on its website (<http://www.mcleodhealth.org/mcleod-health-clarendon.html>).

References

County Health Rankings & Roadmaps <http://www.countyhealthrankings.org/app/south-carolina/2016/rankings/clarendon/county/outcomes/overall/snapshot>

Centers for Disease Control and Prevention, National Center for Healthcare Statistics
<http://www.cdc.gov/nchs>

SC Budget and Control Board, SC Kids Count <http://www.sckidscount.org>

SC Department of Health and Environmental Control, Epidemiological Data
<http://www.scdhec.gov/Health/docs/Epi/chronic/clarendon.pdf>

SC Department of Health and Environmental Control, Public Health Data
<http://www.scangis.dhec.sc.gov/scan/>

SC Department of Health and Environmental Control, Vital Statistics
<http://www.scdhec.gov/data-statistics.htm>

SC Office of Research and Statistics <http://www.ors.gov>

SC Office of Healthcare Workforce Analysis and Planning, SC Health Professions Data Book
<http://officeforhealthcareworkforce.org/>

SC Rural Health Research Center <http://rhr.sph.sc.edu/> US Census Bureau
<http://www.census.gov/>

USDA Economic Research Service <http://www.ers.usda.gov/Data/>

Appendices

1. McLeod Health Clarendon Service Area
2. Summary of the Socio-demographics of Clarendon County
3. Analysis of Hospital Discharges by County of Service
4. SC County Health Rankings and Roadmaps 2012
5. Guided Interview Questions
6. Community Key Informant Survey
7. Data Sources for the McLeod Health Clarendon CHNA 2016
8. Public Recreational Resources in Clarendon County