Lake Charles
Memorial Health System

2019

Community Health Needs Assessment

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Introduction

Located in Lake Charles, Louisiana, Lake Charles Memorial Health System (LCMH) is one of the largest non-government employers in the area. As a true community health system, run by a board of local volunteers, Lake Charles Memorial is an elite group of health systems that belongs and serves the residents of Southwest Louisiana.

The Patient Protection and Affordable Care Act (PPACA), which went into effect on March 23, 2010, requires tax-exempt hospitals to conduct community health needs assessments (CHNA) and implementation strategies in order to improve the health and well-being of residents within the communities served by the hospitals. These strategies created by hospitals and institutions consist of programs, activities, and plans that are specifically targeted toward populations within the community. The execution of the implementation strategy plan is designed to increase and track the impact of each hospital's efforts.

Tripp Umbach was contracted by Lake Charles Memorial Health System to conduct a CHNA. There were multiple steps involved in the overall CHNA process. These steps are depicted in Chart 1. Additional information regarding each component of the project, and the results, can be found in the Appendices section of this report.

The community needs assessment process is a meaningful engagement, and input was collected from a broad cross-section of community-based organizations, establishments, and institutions. The CHNA was spread among five Louisiana parishes and 23 ZIP codes. The CHNA process undertaken by Lake Charles Memorial Health System, with project management and consultation by Tripp Umbach, included input from representatives of the broad interests of the community served by the hospital, including those with special knowledge of public health issues; data related to underserved, hard-to-reach, vulnerable populations; and representatives of vulnerable populations served by each hospital. Tripp Umbach collaborated with Working Group members to oversee and accomplish the assessment and its goals. This report fulfills the requirements of the Internal Revenue Code 501(r)(3), established within the Patient Protection and Affordable Care Act.

Data from government and social agencies provides a strong framework and a comprehensive piece to the overall CHNA. The information collected is a snapshot of the health of residents in Southwest Louisiana, which encompassed socioeconomic information, health statistics, demographics, and mental health issues. The CHNA report is a summary of primary and secondary data collected for Lake Charles Memorial Health System.

The requirements imposed by the IRS for tax-exempt hospitals and health systems must include the following:

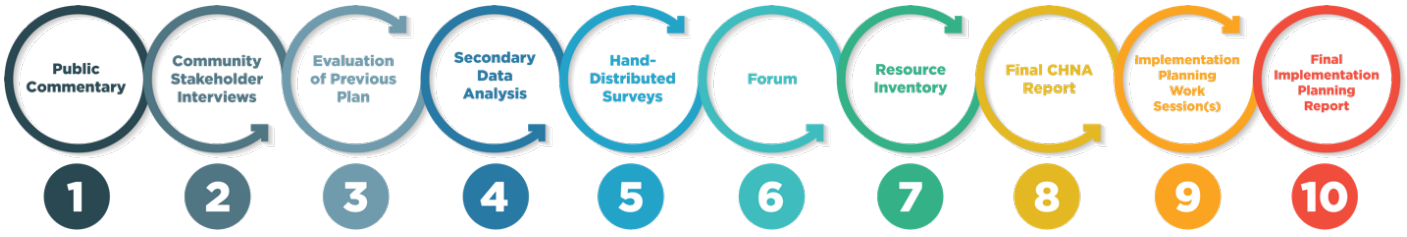
- Conduct a CHNA every three years.
- Adopt an implementation strategy to meet the community health needs identified through the assessment.

- Report how the strategy is addressing the needs identified in the CHNA and a description of needs that are not being addressed, with the reasons why.

The Department of the Treasury and the IRS require a CHNA to include:

1. A description of the community served by the hospital facilities and how the description was determined.
2. A description of the process and methods used to conduct the assessment.
    - A description of the sources and dates of the data and other information used in the assessment and the analytical methods applied to identify community health needs.
    - A description of information gaps that impact the hospital organization's ability to assess the health needs of the community served by the hospital facility.
    - Identification of organizations that collaborated with the hospital and an explanation of their qualifications.
3. A description of how the hospital organizations considered input from persons who represent the broad interests of the community served by the hospitals. In addition, the report must identify any individual providing input who has special knowledge of or expertise in public health. The report must also identify any individual providing input who is a "leader" or "representative" of populations.
4. A prioritized description of all of the community health needs identified through the CHNA, as well as a description of the process and criteria used in prioritizing such health needs.
5. A description of the existing health care facilities and other resources within the community available to meet the community health needs identified through the CHNA.
6. A description of the needs identified that the hospital intends to address, the reasons those needs were selected, and the means by which the hospital will address the selected needs.[1]

Graph 1: Community Health Needs Assessment and Implementation Planning Process



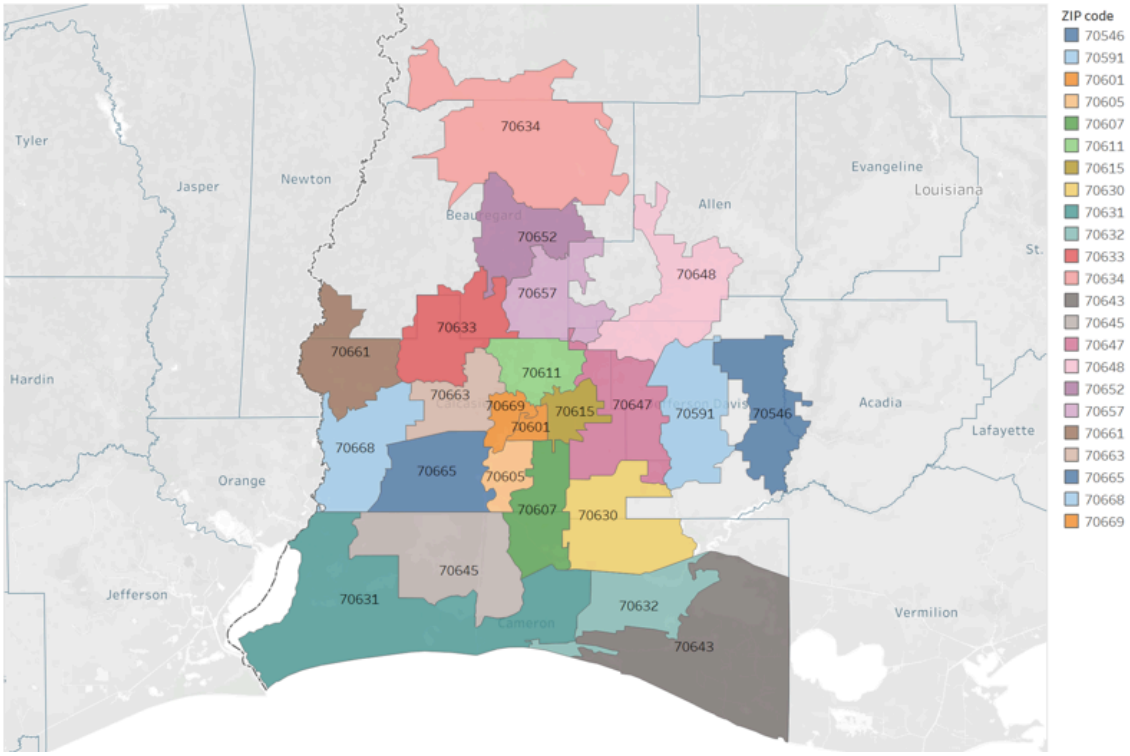
[1] The outcomes from the CHNA will be addressed through an implementation planning phase.

Lake Charles Memorial Health System – Primary Service Area

A comprehensive CHNA, beginning in early February 2019, was completed for Lake Charles Memorial Health System.

The primary service area for Lake Charles Memorial Health System was defined by ZIP codes that contain a majority of inpatient discharges (80 percent) from the health care facility. In 2019, 23 ZIP codes were identified as the service area for Lake Charles Memorial Health System. The service area also included a focus in five parishes in Louisiana: Allen, Beauregard, Calcasieu, Cameron, and Jefferson Davis. The information related to the hospital's primary service area is represented in the below map as well as on the proceeding table (See Map 1 and Table 1).

Map 1: Lake Charles Memorial Health System – Primary Service Area/Study Area



Tripp Umbach supplied LCMH with an array of secondary data from multiple resources including: Community Needs Index (CNI), Community Commons Data, County Health Rankings, and America's Health Rankings etc.

CNI data from Truven Health Analytics provides a deeper understanding of community health care needs.[2] The Community Needs Index (CNI), jointly developed by Dignity Health and Truven Health, assists in the process of gathering vital socioeconomic factors in the community. CNI is a strong indicator of a community's demand for various health care services. The CNI data will be used to quantify the implementation strategy efforts and plans for Lake Charles Memorial Health System.

Table 1: Lake Charles Memorial Health System - ZIP Code Primary Service Area/Study Area

	City	ZIPS	Parish
1.	Bell City	70630	Calcasieu
2.	Dequincy	70633	Calcasieu
3.	Deridder	70634	Beauregard
4.	Iowa	70647	Calcasieu
5.	Jennings	70546	Jefferson Davis
6.	Kinder	70648	Allen
7.	Lake Charles	70601	Calcasieu
8.	Lake Charles	70605	Calcasieu
9.	Lake Charles	70607	Calcasieu
10.	Lake Charles	70615	Calcasieu
11.	Lake Charles	70611	Calcasieu
12.	Longville	70652	Beauregard
13.	Ragley	70657	Beauregard
14.	Starks	70661	Calcasieu
15.	Sulphur	70663	Calcasieu
16.	Sulphur	70665	Calcasieu
17.	Vinton	70668	Calcasieu

[2] Truven Health Analytics, formerly owned by Thomson Reuters, is a multinational health care company that delivers information, analytic tools, benchmarks, research and services to a variety of organizations and companies. Truven Health Analytics uses demographic data, poverty data (from The Nielsen Company), and insurance coverage estimates (from Truven Health Analytics) to provide Community Needs Index (CNI) scores at the ZIP code level.

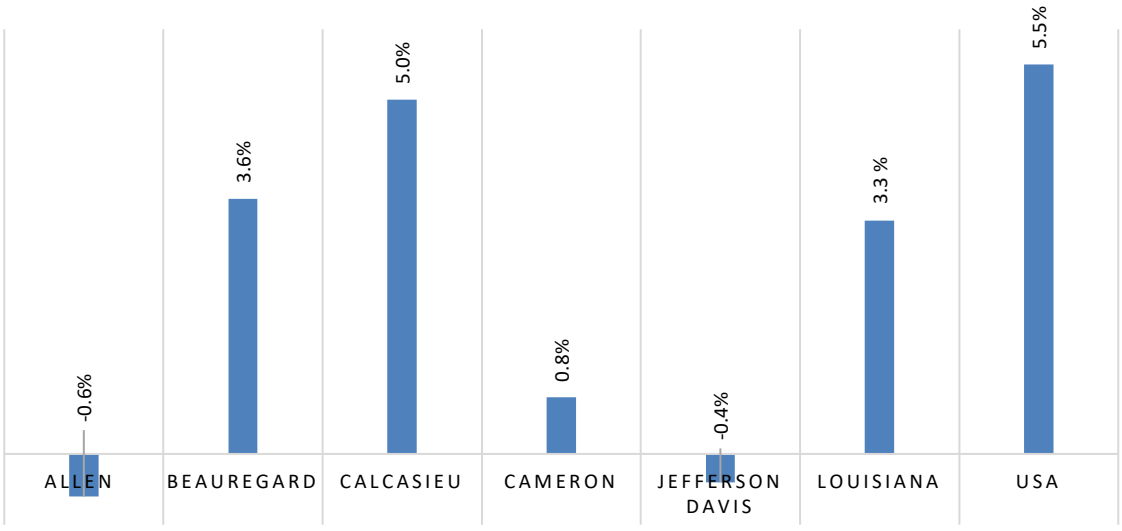
	City	ZIPS	Parish
18.	Welsh	70591	Jefferson Davis
19.	Westlake	70669	Calcasieu
20.	Cameron	70631	Cameron
21.	Creole	70632	Cameron
22.	Grand Chenier	70643	Cameron
23.	Hackberry	70645	Cameron

Demographic Profile

The study area shows that three parishes are projected to have a population growth from 2010 to 2017, while Allen and Jefferson Davis parishes are expected to show a decrease in population size.

Calcasieu Parish encompasses 202,445 residents and is the largest parish in the study area, next to Beauregard with 36,928. Jefferson Davis Parish holds 31,477, Allen 25,621, and Cameron holds 6,912 residents.

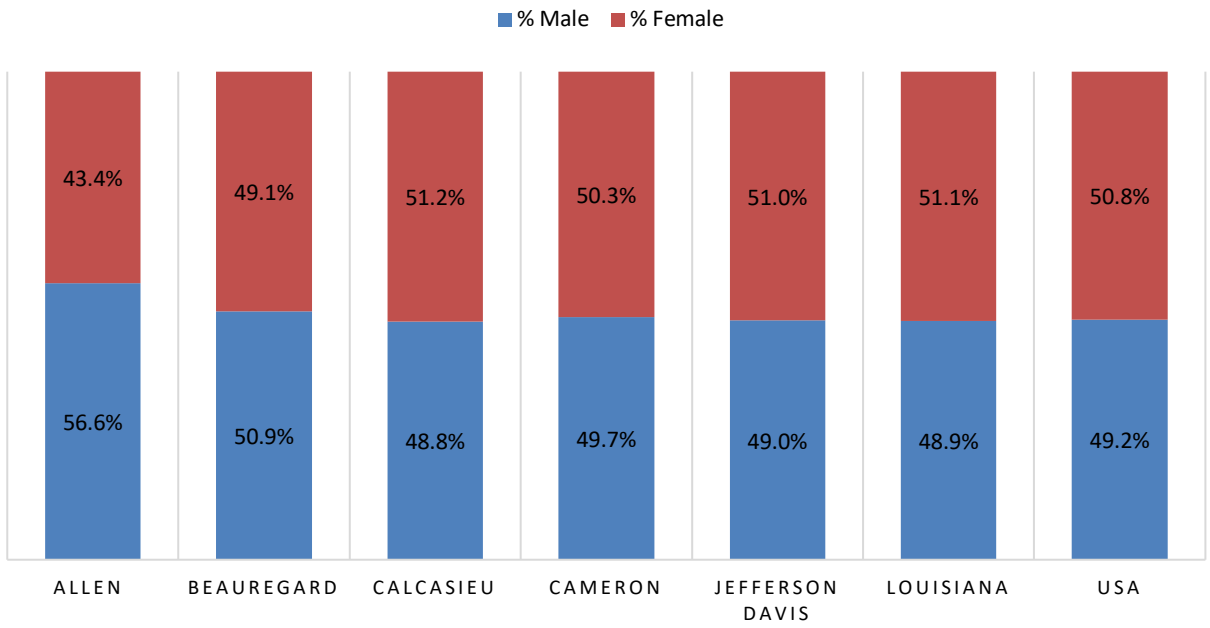
Graph 2: Population Changes 2010-2017



Source: U.S. Census Bureau

The gender breakdown for the study area is generally consistent across the study area parishes and similar to state and national norms.

Graph 3: Gender Distribution 2013-2017

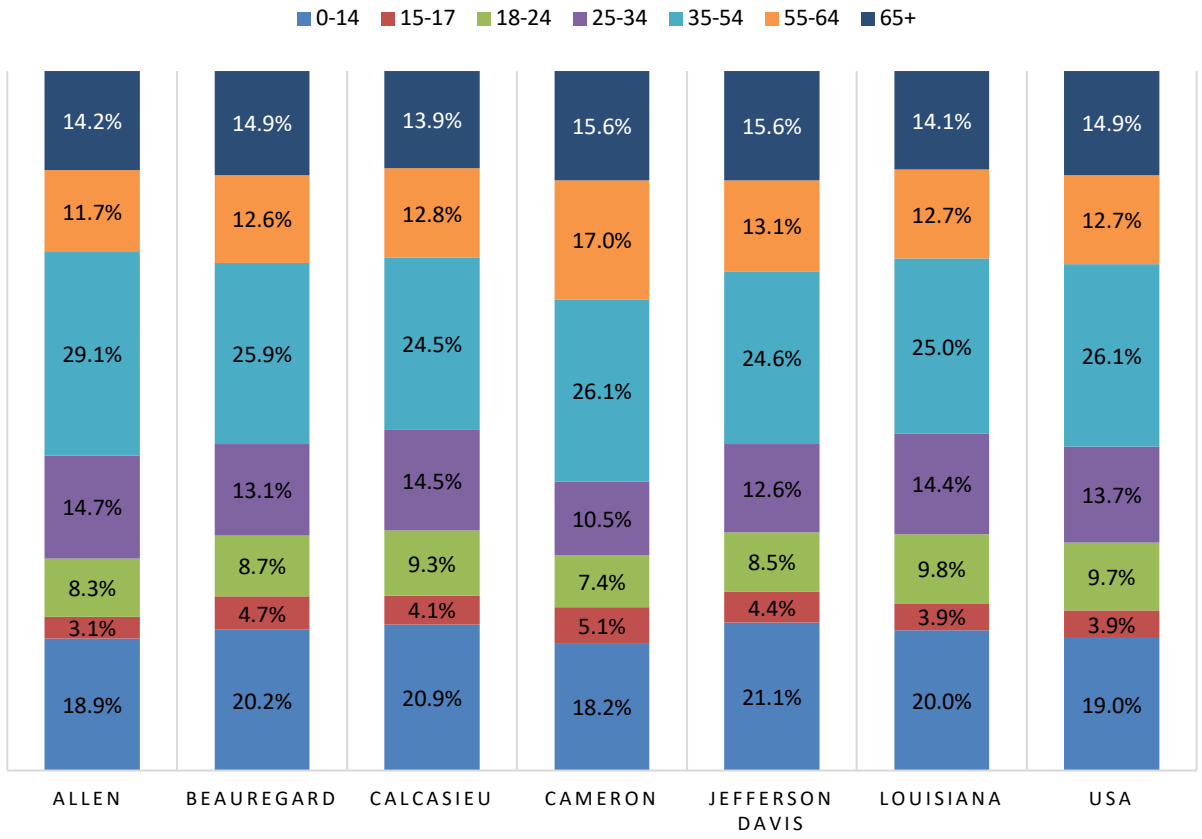


Source: U.S. Census Bureau

Graph 4 illustrates the age distribution among residents in the study area. Cameron and Jefferson Davis parishes both report a high rate (15.6 percent) of residents aged 65 and older, higher than the state and nation.

Across the parishes there is an equal distribution among residents ages 35 to 54 years old.

Graph 4: Age Distribution 2017

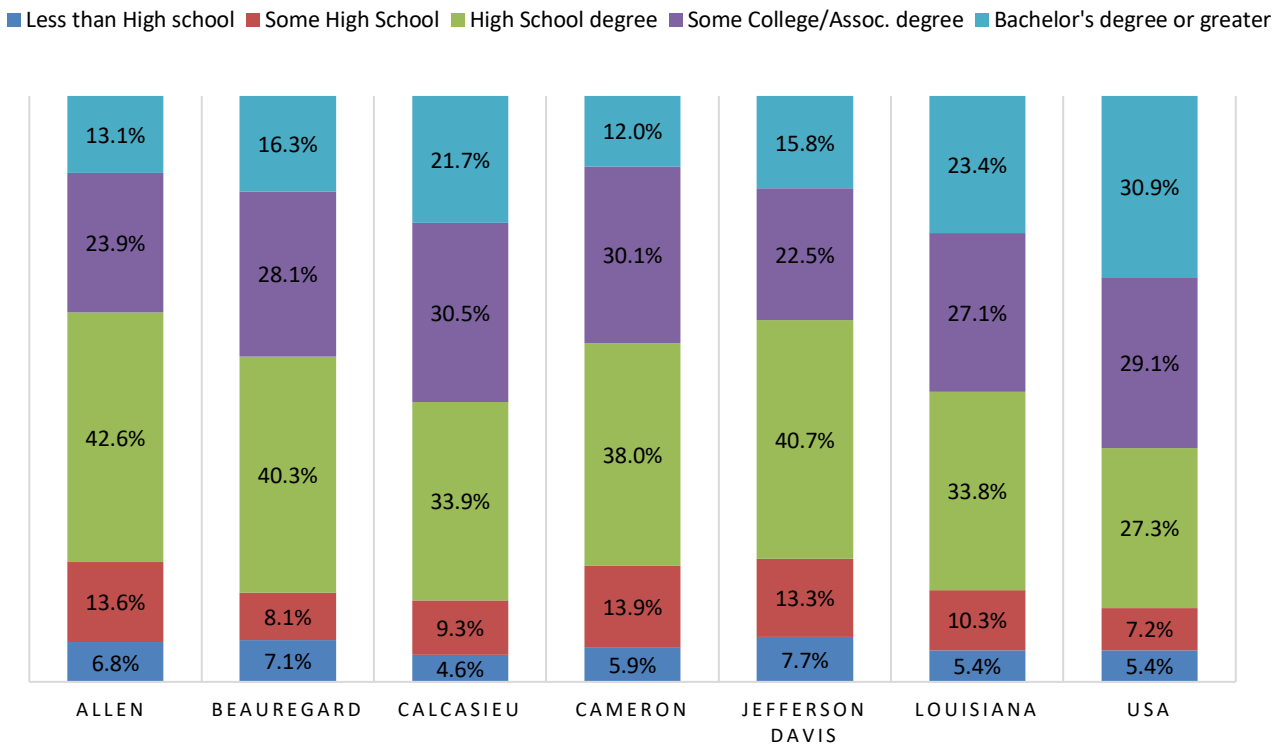


Source: U.S. Census Bureau

Graph 5 illustrates the educational breakout within the five-parish study area. Jefferson Davis Parish reports the highest rate of residents with less than a high school education at 7.7 percent.

Calcasieu Parish reports the highest rate of residents with a bachelor's degree or higher at 21.7 percent, while Cameron Parish reports the lowest rate of residents with a bachelor's degree or higher at 12.0 percent.

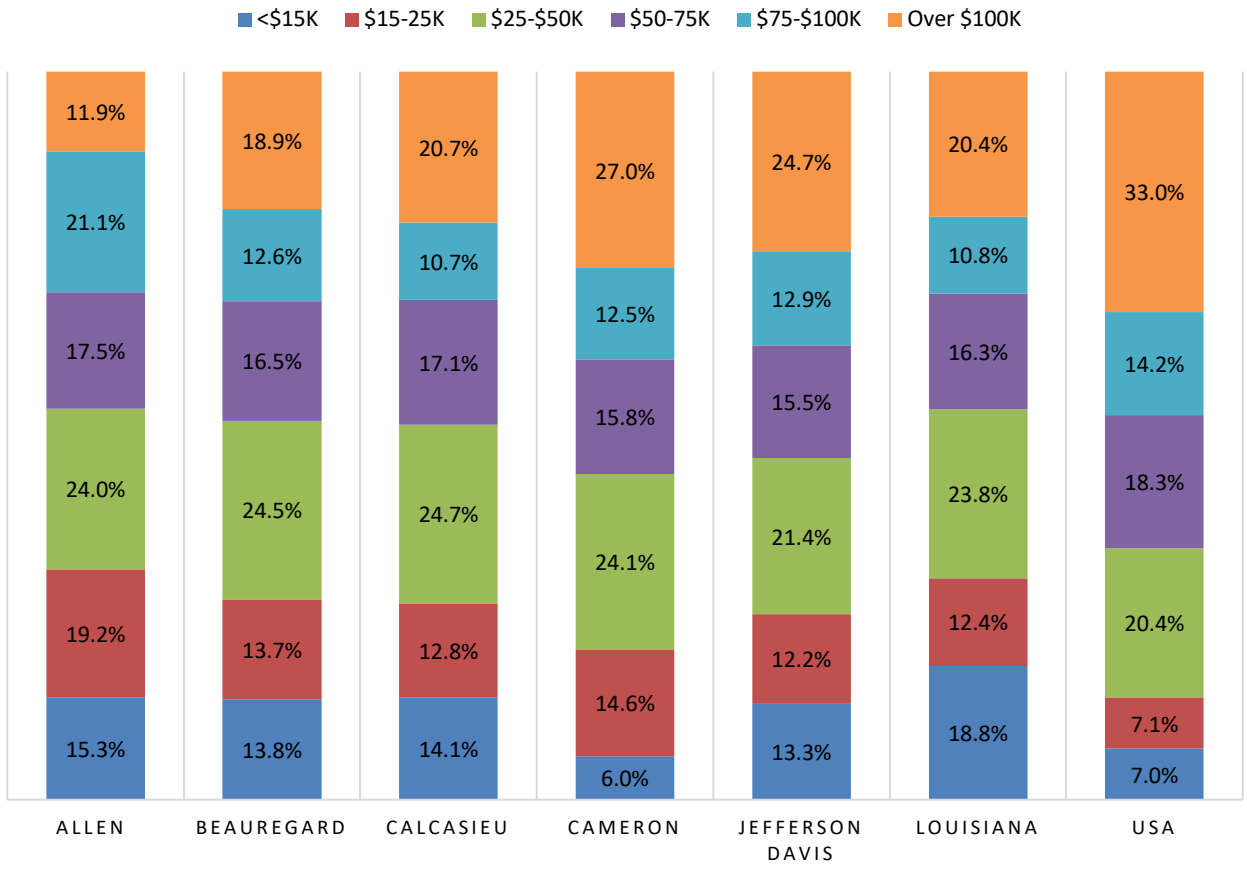
Graph 5: Education in 2017 – Population 25 and Older



Source: U.S. Census Bureau

Allen Parish reports the highest rate of households that earn less than $15,000 per year for the region (15.3 percent), while 27.0 percent of residents in Cameron Parish reported the highest rate, earning more than $100,000 a year.

Graph 6: Household Income 2017



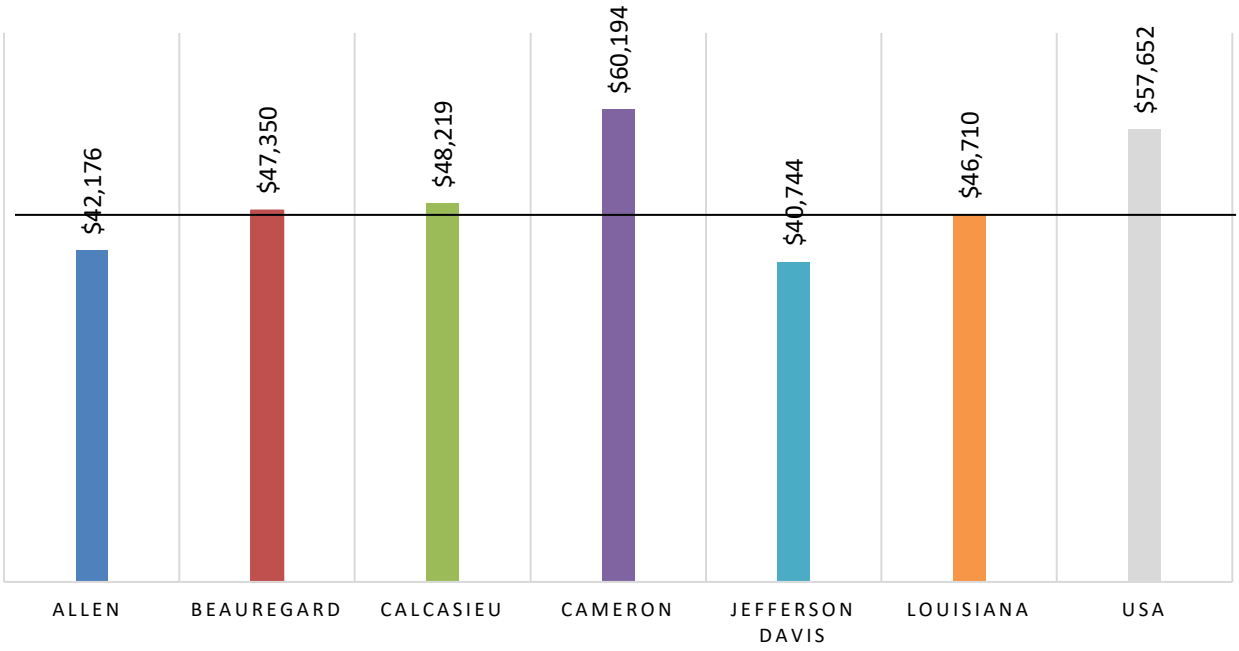
Source: U.S. Census Bureau

Graph 7 reveals the average household income within the five-parish study area. Jefferson Davis Parish reports the lowest average annual household income for the study area at $40,744.

Cameron Parish reports the highest average household income ($60,194), exceeding the state of Louisiana ($46,710) and the nation ($57,652).

Note: The black line indicates the state income average.

Graph 7: Average Household Income 2013-2017



Source: U.S. Census Bureau

Community Needs Index Data of Primary Service Area

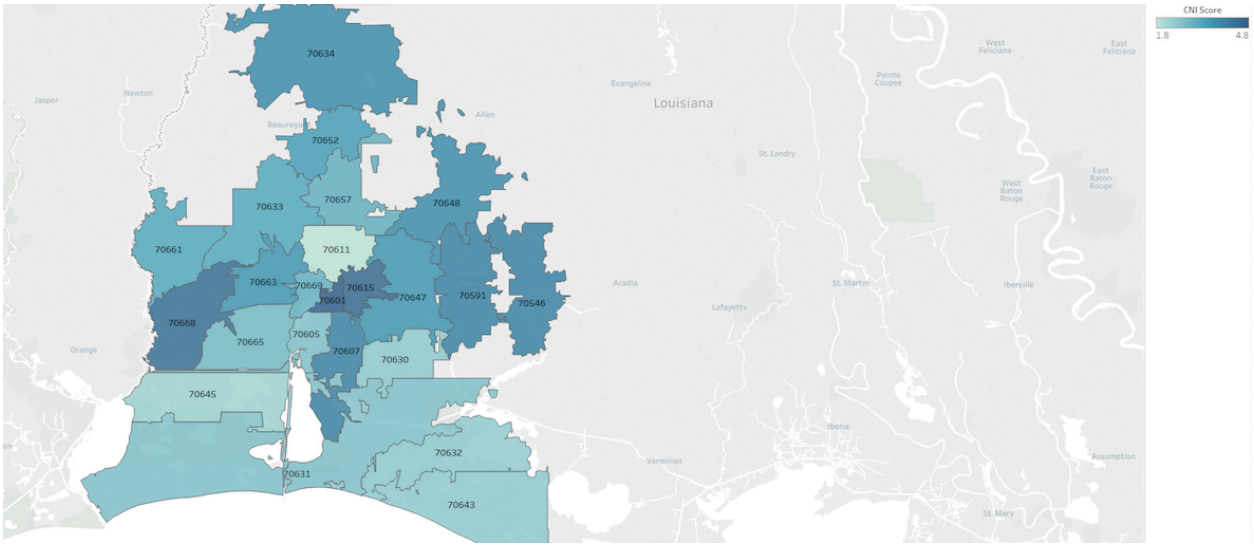
The CNI score is an average of five barrier scores that measure various socioeconomic indicators of each community using the source data. The five barriers are income, culture, education, insurance, and housing. A score of 1.0 indicates a ZIP code with the least need, while a score of 5.0 represents a ZIP code with the most need.

Reviewing CNI information, the map below provides a geographic representation of the CNI scores for each ZIP code representing Lake Charles Memorial Health System. ZIP codes that have higher socioeconomic barriers (5.0) are represented in dark green. As the socioeconomic scores decrease, the coding color lightens. There are concentrated areas within Lake Charles that signify high socioeconomic barriers to care. (See Map 2).

Reviewing information related to LCMH's primary service area, ZIP code 70601 (Lake Charles) had the highest CNI score at 4.8, while 70615 had a score of 4.6 (Lake Charles) followed closely by 70668 (Vinton) at 4.4 (more socioeconomic needs).

On the polar end, ZIP codes 70611 (Lake Charles), 70645 (Hackberry), and 70630 (Bell City) had CNI scores of 1.8, 2.2, and 2.4, respectively (fewer socioeconomic needs).

Map 2: CNI Data – Primary Service Area/Study Area Map



2019 CNI Score

5.00 to 4.00 (High socioeconomic barriers)

3.99 to 3.00

1.99 to 1.00 (Low socioeconomic barriers)

Table 2: CNI Data – Primary Service Area/Study Area Map

ZIPS	CNI Score	Population	City	Parish
70611	1.8	21,002	Lake Charles	Calcasieu
70645	2.2	1,271	Hackberry	Cameron
70630	2.4	1,949	Bell City	Calcasieu
70632	2.4	366	Creole	Cameron
70643	2.4	407	Grand Chenier	Cameron
70605	2.6	35,831	Lake Charles	Calcasieu
70631	2.6	970	Cameron	Cameron
70665	2.8	11,466	Sulphur	Calcasieu
70657	3.0	5,164	Ragley	Beauregard
70669	3.0	10,415	Westlake	Calcasieu
70633	3.2	8,784	Dequincy	Calcasieu
70661	3.2	2,220	Starks	Calcasieu
70652	3.4	2,476	Longville	Beauregard
70647	3.6	10,400	Iowa	Calcasieu
70663	3.6	29,008	Sulphur	Calcasieu
70648	3.8	8,574	Kinder	Allen
70634	3.8	26,543	Deridder	Beauregard
70607	4.0	27,396	Lake Charles	Calcasieu
70546	4.0	16,026	Jennings	Jefferson Davis
70591	4.0	5,368	Welsh	Jefferson Davis
70668	4.4	6,617	Vinton	Calcasieu
70615	4.6	14,482	Lake Charles	Calcasieu
70601	4.8	32,024	Lake Charles	Calcasieu

Methodology

Lake Charles Memorial Health System conducted a comprehensive community health needs assessment that included the collection of primary and secondary data. Community organizations and leaders within the five-parish region were engaged to distinguish the needs of the region. Civic and social organizations, government agencies, educational systems, and health and human services entities were engaged throughout the CHNA. The comprehensive primary data collection phase resulted in the contribution of multiple community stakeholders/leaders, organizations, and community groups.

The primary data collection consisted of several project component pieces. Community stakeholder interviews were conducted with individuals who represented:

a. broad interests of the community;

b. populations of need; or

c. persons with specialized knowledge in public health.

A robust data profile was analyzed. The data profile contained local, state, and federal data/statistics providing invaluable information on a wide array of health and social topics.[3] Different socioeconomic characteristics, health outcomes, and health factors that affect residents' behaviors, specifically the influential factors that impact the health of residents, were reviewed and discussed with members of the Working Group and Tripp Umbach.

Tripp Umbach employed a hand-distribution methodology to disseminate surveys to individuals within the community. A hand-survey was utilized to collect input, in particular, from underserved populations. The hand-survey was designed to capture and identify the health risk factors and health needs of those within the study area. An internal forum facilitated by Tripp Umbach was conducted to prioritize the region's health needs. The final health needs will be addressed in the implementation and planning phase. A resource inventory was generated to highlight available programs and services within the service area. The resource inventory identifies available organizations and agencies that serve the region within each of the priority needs.

The health care environment is characterized by change and uncertainty. As change and uncertainty deepen, hospitals and health systems must continually enhance their ability to ensure value to their members and to assist diverse members with strategies and tools for improving the health of the population. Tripp Umbach facilitated the development of a comprehensive community health needs assessment approach to advance community health, promote wellness and prevention, and mobilize community partners to participate in addressing the health and well-being of the population. Tripp

[3] For the data profiles, Tripp Umbach cited the data years reflective of the year the CHNA was conducted. The data years from Community Commons vary for each data point. Some data points may be reflective of years prior to the assessment period. Tripp Umbach compiled and collected data that was currently available on the data sources' sites. Tripp Umbach provided data on specific outcome factors and measures that had "fresh" information.

Umbach has found that community and regional CHNAs often bring about a greater understanding of the shared health issues across a community as well as opportunities for health systems and community organizations to share data and work collaboratively to address the health needs of the community.

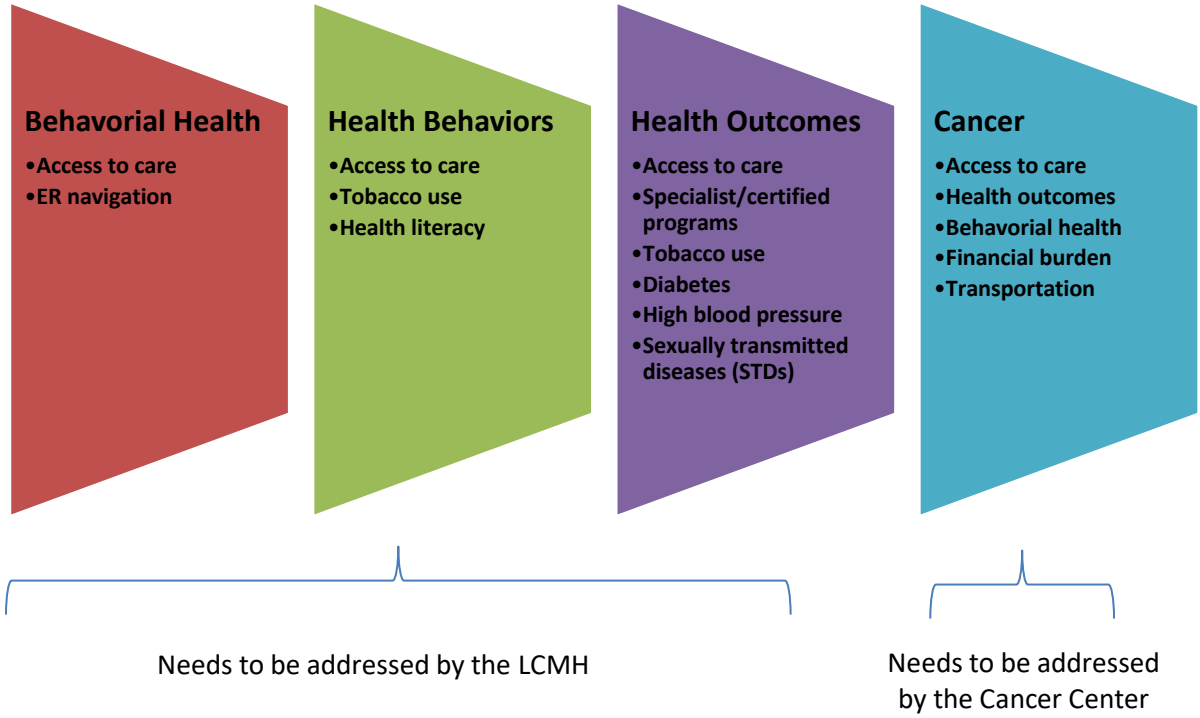
Tripp Umbach provided benchmarking or trending data to track and observe movements in the primary and secondary data (where applicable).

CHNA 2019 Final Identified Needs

As a result of feedback and input from the internal working group and active participants of the CHNA process, along with extensive primary and secondary data research, key priority areas were identified.

Tripp Umbach categorized the key community needs into broader areas taking into account the previous 2016 CHNA results as well. The key need areas from the 2019 CHNA are depicted in the graph below. Within the identified needs, the assessment revealed sub-needs. LCMH will address the needs identified from the assessment period.

Graph 8: 2019 CHNA Key Community Needs



The cancer needs identified in the 2019 assessment will be addressed by the Lake Charles Memorial Health System Cancer Center. A separate CHNA report produced for the cancer center will be submitted as part of IRS requirements. The identification of the cancer needs is important to specify in LCMH's CHNA report.

The implementation strategy planning phase will outline a plan of action for how Lake Charles Memorial Health System will address the top community health priorities over the next three years. Through measurable strategies and goals, efforts to ensure a positive impact on the health of the community will be tracked and reported.

Key Community Health Needs

A healthy community encompasses many factors and is dependent not only upon the genetics of an individual but also includes the overall environment within which those individuals live. The environment in which a person lives plays a significant role in the health of the individual. A healthy community typically features residents who have good physical, mental, and emotional health. A strong healthy community allows and promotes well-being and provides high-quality services and accessibility to those services. It also creates an environment that allows residents and people to thrive on many levels, addressing unhealthy behaviors, and reduces illnesses. Communities plagued with unhealthy environmental factors tend to lead to higher rates of chronic disease, such as cancers, diabetes, and heart disease. A healthy community is only successful if involvement is obtained from the region with adequate resources and living structures as well as active participation from residents to maintain and engage in a healthy lifestyle.

Access to Care

Access to comprehensive, quality health care services is important for promoting and maintaining health, preventing and managing disease, reducing unnecessary disability and premature death, and achieving health equity for all Americans, according to the Office of Disease Prevention and Health Promotion.[4] Access to care was an identified area of focus in the 2019 CHNA assessment. Access to care was a sub-category under each of the overall identified needs as it is an important issue that was acknowledged in 2016 and 2019. As such, this community need will continue to be addressed in the implementation planning phase by LCMH.

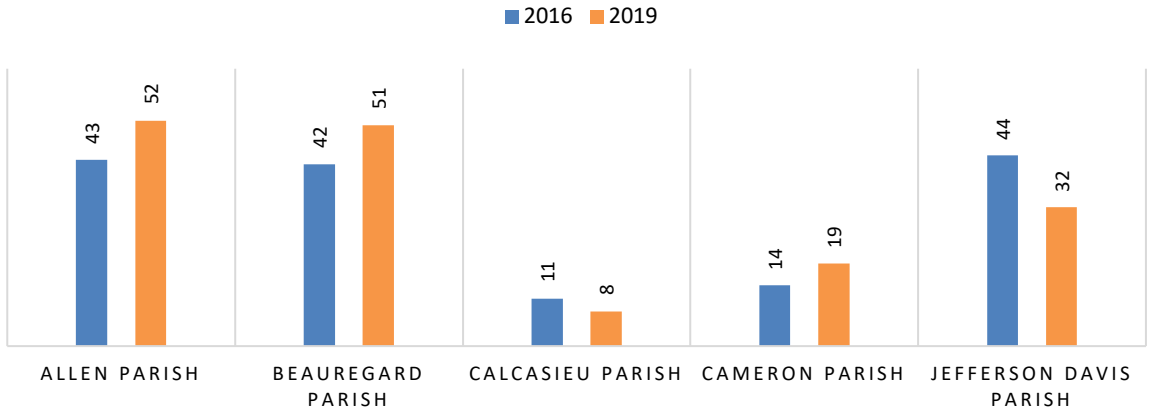
[4] Office of Disease Prevention and Health Promotion: www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services

Access to primary care is important to residents in order to manage their health, receive treatments, and take preventive care measures. Access to care tends to include insurance coverage, health services, and timeliness of care. High cost of services, transportation issues, and availability of providers are also additional barriers or problems to accessing health care services.

Across the United States, a predicted shortage of 46,900 to 121,900 physicians by 2032 includes both primary care (21,100 to 55,200) and specialty care (24,800 to 65,800). Among specialists, the data project a shortage of between 1,900 to 12,100 medical specialists; 14,300 to 23,400 surgical specialists; and 20,600 to 39,100 other specialists, such as pathologists, neurologists, radiologists, and psychiatrists, by 2032.[5] The Robert Graham Center reports that to maintain current rates of utilization, Louisiana will need an additional 392 primary care physicians by 2030, an overall 15 percent increase compared to the state's current (as of 2010) 2,556 PCP workforce.[6]

Secondary data from County Health Rankings & Roadmaps reported that Allen (52), Beauregard (51), and Jefferson Davis (32) parishes did not rank in the top one-third within the clinical arena among Louisiana's 64 parishes; however, Calcasieu (8) and Cameron (19) parishes ranked well. Examining data between 2016 and 2019, Calcasieu and Jefferson Davis parishes improved in their ranking scores, while Allen, Beauregard, and Cameron rankings declined. The clinical care category takes into consideration the ease of accessing care and the quality of care once accessed. Clinical care ranking considers the availability of health services and the quality of those services, it also considers the preventive care measures that patients take to manage their health, including immunization rates, cancer screening rates, and percentage of the population that receives a yearly dental examination. The clinical care ranking is vital to understanding the ebb and flow of where clinical services are lacking in the state. (See Graph 9).

Graph 9: Clinical Care Rankings



Source: County Health Rankings & Roadmaps

[5] Association of American Medical Colleges: https://news.aamc.org/press-releases/article/2019-workforce-projections-update/

[6] Robert Graham Center: www.graham-center.org/content/dam/rgc/documents/maps-data-tools/state-collections/workforce-projections/Louisiana.pdf

Closing the gaps of disparities, Louisiana's safety net providers play a vital role in delivering health care to the state's underserved and disenfranchised populations. Louisiana's community health centers provide access to primary and preventive services for low-income and underserved residents. Louisiana is home to 30 federally qualified health centers (FQHCs), which operate 162 sites throughout the state. Louisiana's FQHCs saw more than 303,000 patients and provided nearly 1.1 million patient visits in 2014. More than one-third (37.0 percent) of their patients were uninsured, and two-fifths (40.0 percent) had Medicaid coverage. Nearly all (93.0 percent) had incomes below 200 percent of the federal poverty line, including over three-quarters (77.0 percent) who had income below 100 percent of the federal poverty line.[7]

Maintaining health, preventing and managing disease, and reducing unnecessary disability and premature death are important factors and outcomes of accessing comprehensive, high-quality health care services. The Patient Protection and Affordable Care Act (PPACA) of 2010 improved access to health care by providing health insurance for 20 million adults. Despite this increase, significant disparities still exist with all levels of access to care by sex, age, race, ethnicity, education, and family income.[8]

Routine/regular primary care is essential to good health; providers are able to detect and treat health issues early, preventing complications, chronic conditions, and hospitalizations. Individuals without insurance or the financial means to pay out-of-pocket are less likely to take advantage of routine preventive and primary care.

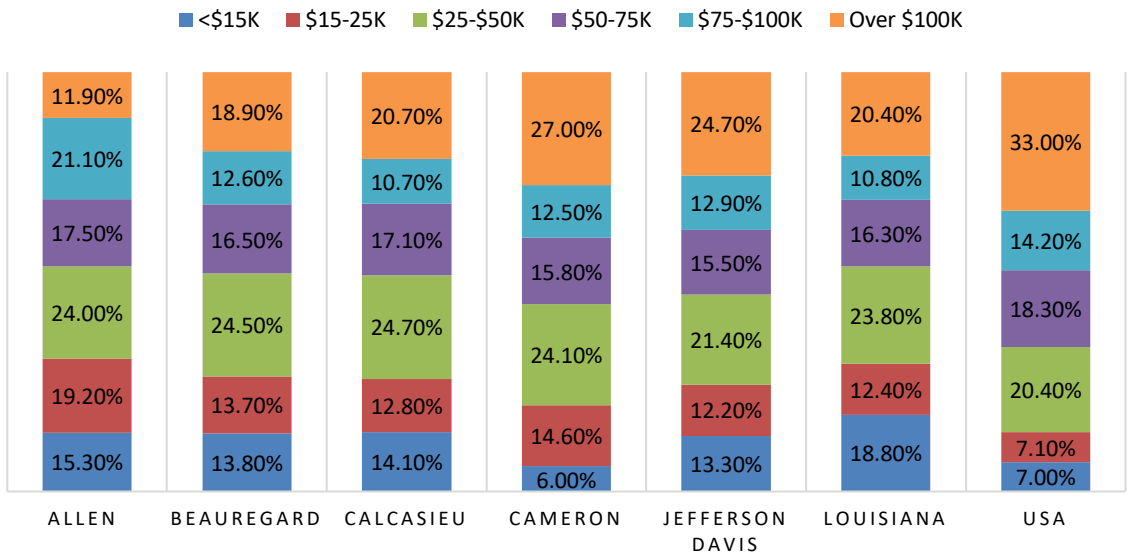
Health access in the community plays a tremendous role on an individuals' overall health. Several factors including, geography, economics, and culture contribute to how residents obtain care. Transportation options can also be problematic for residents, impacting the opportunity to obtain services. Lack of employment prospects can reduce access to affordable health insurance. As such, geographic and economic factors are impacting residents of the LCMH hospital area.

According to demographic data obtained, Allen Parish reports the highest rate of households that earn less than $15,000 per year for the region (15.3 percent), thereby adding challenges for residents who seek health services. Cameron and Jefferson Davis parishes report the largest percent of residents who earn more than $100,000 a year when compared to the remaining parishes and the state. (See Graph 10).

The average household income for residents in Jefferson Davis Parish is $40,744. This is lower than the state ($46,710) as well as the nation ($57,652). Cameron Parish reports the highest average household income at $60,194. This is higher than the remaining parishes in the study area, the nation, and the state.

[7] Henry J. Kaiser Family Foundation: www.kff.org/health-reform/fact-sheet/the-louisiana-health-care-landscape/
[8] Healthy People 2020: www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services

Graph 10: Household Income

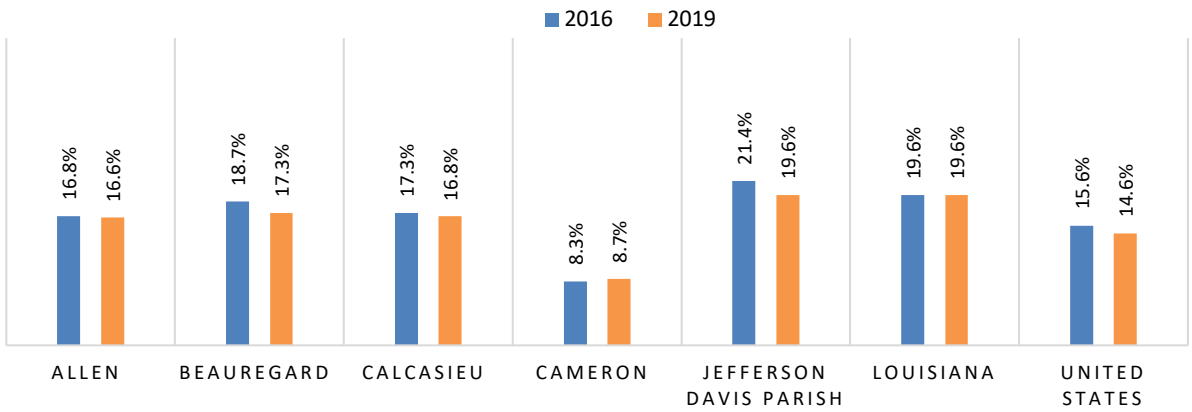


Source: U.S. Census Bureau

Where a family lives and how and when they access health care services is determined by a family's household income. Illustrated by data from the U.S. Census Bureau, residents in the Jefferson Davis Parish area (19.6 percent) have a higher population of people living 100 percent below the federal poverty line, when compared to the remaining parishes and the state. Allen (16.36 percent), Beauregard (17.3 percent), Calcasieu (16.8 percent), and Jefferson Davis (19.6 percent) parishes have higher percentages of residents living 100 percent below the federal poverty line compared to the state (14.6 percent).

A family's household income is greatly intertwined with how they are able to live; eat; and obtain safe, clean, and affordable housing. (See Graph 11).

Graph 11 : Population Below 100 Percent Federal Poverty Level

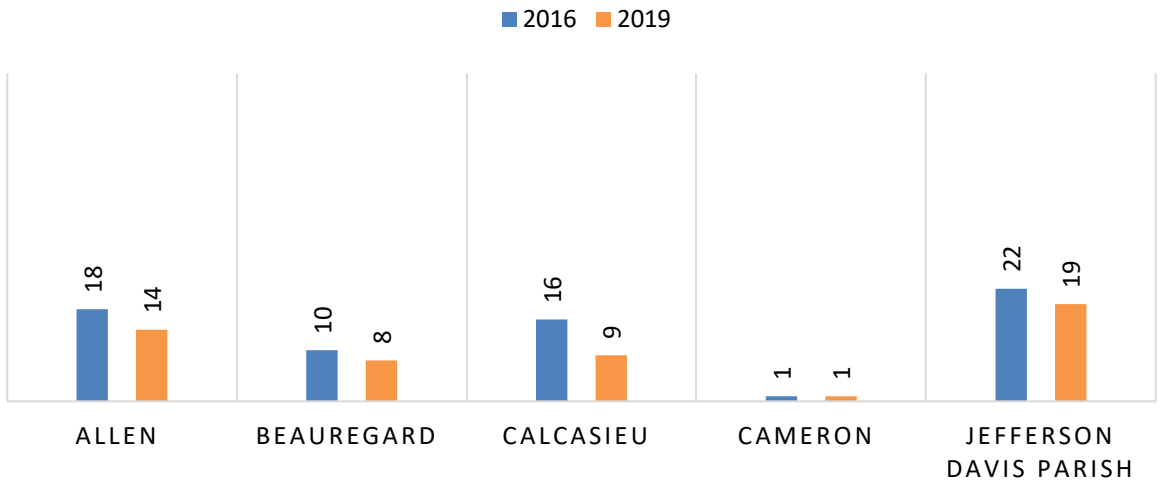


Source: U.S. Census Bureau, American Community Survey

County Health Rankings & Roadmaps report that Allen (18 to 14), Beauregard (10 to 8), Calcasieu (16 to 9), and Jefferson Davis (22 to 19) parishes improved their social and economic factors ranking from 2016 to 2019. Cameron Parish remained the same, first, between the years. (See Graph 12).

Social and economic factors from County Health Rankings & Roadmaps include education, employment, income, and family and social support. These influences are significant and are linked to how residents are able to live a healthy and wholesome lifestyle.

Graph 12: Social and Economic Factors

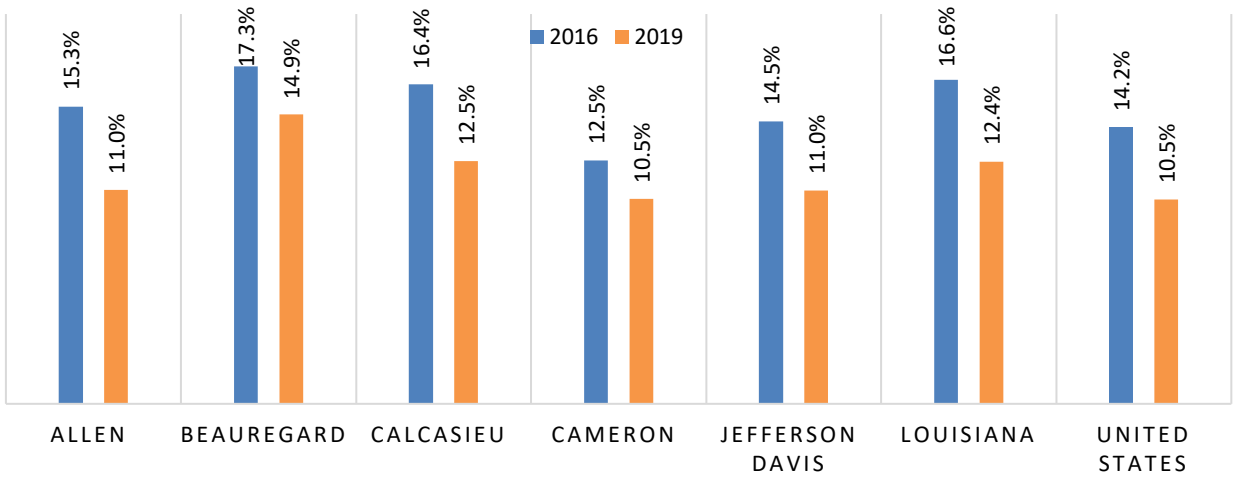


Source: County Health Ranking & Roadmaps

Secondary data reveal the overall percentage of uninsured residents has improved since 2016. Beauregard Parish continues to have the most uninsured residents at 14.9 percent; this rate is higher than the state (12.4 percent) and the nation (10.5 percent). On the opposite spectrum, Cameron Parish (10.5 percent) reports the lowest percent of uninsured residents compared to the remaining parishes. It is important to note that the Affordable Care Act (ACA) became law on March 23, 2010. These percentages may be a reflection on the number of residents who now have health insurance since its inception.

This indicator reports the percentage of the total civilian, non-institutionalized population without health insurance coverage. This indicator is relevant since the lack of insurance is a primary barrier to health care access including primary care, specialty care, and other health services that contribute to poor health status.

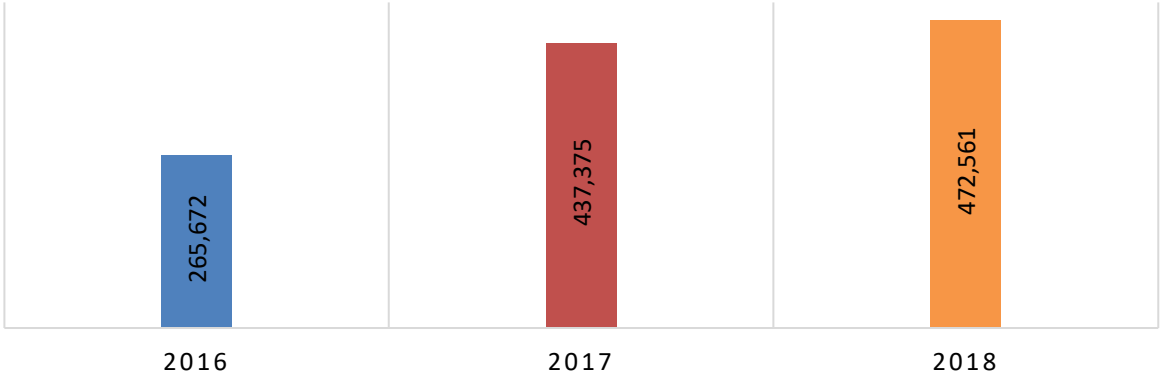
Graph 13: Health Insurance – Uninsured (Total Population)



Source: County Health Ranking & Roadmaps

Additional data from the Louisiana Department of Health shows that the number of adults enrolled due to Medicaid expansion has grown steadily throughout the years. In 2018, the total number of enrolled residents was 472,561. The data below is a good indication that adults who may not have had any health insurance now have health care coverage to its availability. (See Graph 14).

Graph 14: Health Insurance (Louisiana) Adults enrolled in Medicaid Expansion as of June 2018



Source: Louisiana Department of Health

Results from the hand-survey indicated that more than half of survey respondents (63.2 percent) have a household income under $24,999 a year. This is an increase from 2016, when 52.3 percent had a household income under $24,999 a year.

The hand-survey results also showed in 2019 that more than three-fourths of survey respondents (78.1 percent) reported that they have health insurance compared to 65.4 percent in 2016. Affordability was the top reason why survey respondents did not have health insurance coverage (64.5 percent) in 2019.

Access to a primary care physician increased from 2016 to 2019 (75.4 percent vs. 88.6 percent). Affordability was the top reason why survey respondents did not have a primary care physician (54.1 percent) in 2019. Overall, there is a strong connection between income and accessibility. Reducing accessibility factors can greatly improve residents' overall general health.

Community stakeholders agreed the organizations and community-based organizations must continue their efforts to remain involved and diligent in their outreach efforts to the disenfranchised and low-income populations in order to increase access to health care services. While funding has been cut at the state and federal levels, information on available community resources is vital for residents to benefit from the high-quality health care resources regionally. Community stakeholders reinforced that all members of the community must have access to high-quality health care resources.

Behavioral Health

Not immune in the Southwest region, behavioral health, which includes mental health and substance abuse, affects families and individuals throughout the United States. The disease and the number of residents diagnosed with the disease continue to grow exponentially. Along with the growth, the need for mental health services and substance abuse programs have not diminished. Genetics and socioeconomic factors play key roles in individuals who are diagnosed with a mental health problem and oftentimes societal factors increase the likelihood for one to engage in unhealthy life choices such as alcohol and drug use. According to the American Hospital Association, behavioral health disorders affect nearly one in five Americans and have community-wide impacts. Hospitals and health systems provide essential behavioral health care services to millions of Americans every day.[9]

Accessibility issues compacted with limited mental health providers and inadequate insurance coverage are challenges and roadblocks to those seeking and needing behavioral health services. With a growing population, specifically in Beauregard, Cameron, and Calcasieu parishes, the demand for behavioral services will continue to grow. The 2016 and the 2019 CHNA top key prioritized needs highlight the need for additional mental health and substance abuse services and programs locally.

[9] American Hospital Association: www.aha.org/advocacy/access-and-health-coverage/access-behavioral-health

Mental Health

Behavioral health includes not only ways of promoting well-being by preventing or intervening in mental illness such as depression or anxiety, but also has as an aim of preventing or intervening in substance abuse or other addictions.[10] Identified throughout the 2019 CHNA are many factors connected to mental health. When present in the family, mental health is oftentimes passed down generationally; therefore, future family members are more likely to also have the disease. Fortunately, due to the genetic composition of the individual, respondents can and will react to the disease differently due to the environment in which they live and, in some cases, may not develop the disease. Environmental exposure from stress and trauma can illicit or trigger a mental health illness due to the individual's susceptibility.

Socioeconomic factors are linked to mental health illnesses. Living in poverty due to having a low-income, poor education, and lack of employment opportunities are factors that can elevate one's stress level, producing a mental health issue. Data collected from the assessment reveal and suggest that accessibility to mental health services, mental health provider shortages, and the overall engagement in poor health behaviors (alcohol and drug use) highlight the limited resources available in Southwest Louisiana. Providing and having access to mental health providers, residents have a direct pathway to care and treatment, ensuring a conduit to a healthier life and also a healthier community overall. The Substance Abuse and Mental Health Services Administration (SAMHSA) cited that good behavioral health is essential to wholesome/positive overall health. Treatment and preventative measures allow individuals to recover from a mental health crisis.

According to the Centers for Disease Control and Prevention, problems with mental health are very common, with an estimated 50 percent of all Americans diagnosed with a mental illness or disorder at some point in their lifetime. Mental illnesses, such as depression, are the third-most common cause of hospitalization in the United States for those aged 18-44 years old, and adults living with serious mental illness die on average 25 years earlier than others.[11,12] Mental health illnesses are among the top conditions that cause disability and carry a high burden of disease nationally, resulting in significant costs to families, employers, and publicly funded health systems. By 2020, mental and substance use disorders will surpass all physical diseases as a major cause of disability worldwide.[13]

According to the National Alliance on Mental Health Illness (NAMI), approximately 1 in 5 adults in the United States (46.6 million) experiences mental illness in a given year. In addition, approximately 1 in 25 adults (11.2 million) experiences a serious mental illness in a given year that substantially interferes with or limits one or more major life activities. Also, important to note, of the 20.2 million adults in the

[10] Psychology Today: www.psychologytoday.com/us/blog/promoting-hope-preventing-suicide/200910/behavioral-health-versus-mental-health

[11] Centers for Disease Control and Prevention: www.cdc.gov/mentalhealth/data_publications/index.htm

[12] Mental illnesses include many different conditions that vary in degree of severity, ranging from mild to moderate to severe. Two broad categories can be used to describe these conditions: Any Mental Illness (AMI) and Serious Mental Illness (SMI).

[13] The National Center for Biotechnology Information: www.ncbi.nlm.nih.gov/pubmed/26121401

United States who experienced a substance use disorder, 50.5 percent—10.2 million adults—had a co-occurring mental illness.[14]

The number of Americans afflicted with the disease is staggering, and these numbers are a reflection of the lack of mental health providers in the United States. The Department of Health and Human Services report that there are more designated Health Professional Shortage Areas (HPSA) facilities in Calcasieu Parish (5) and Allen Parish (5) when compared to the remaining parishes in the study area. However, reviewing data in Beauregard and Cameron parishes, there are a lack of mental health care facilities. (See Table 3). Residents living in areas where shortages of mental health professionals are located make obtaining treatment difficult, exasperating their conditions.

Note: This indicator reports the number and location of health care facilities designated as Health Professional Shortage Areas (HPSAs). This indicator is relevant because a shortage of health professionals contributes to access and health status issues.

Table 3: Facilities Designated as Health Professional Shortage Area (HPSA)

Report Area 2019	Mental Health Care Facilities	Total HPSA Facility Designations
Allen Parish, LA	1	5
Beauregard Parish, LA	0	0
Calcasieu Parish, LA	1	5
Cameron Parish, LA	0	0
Jefferson Davis Parish, LA	1	4
Louisiana	56	174
United States	3,171	9,836

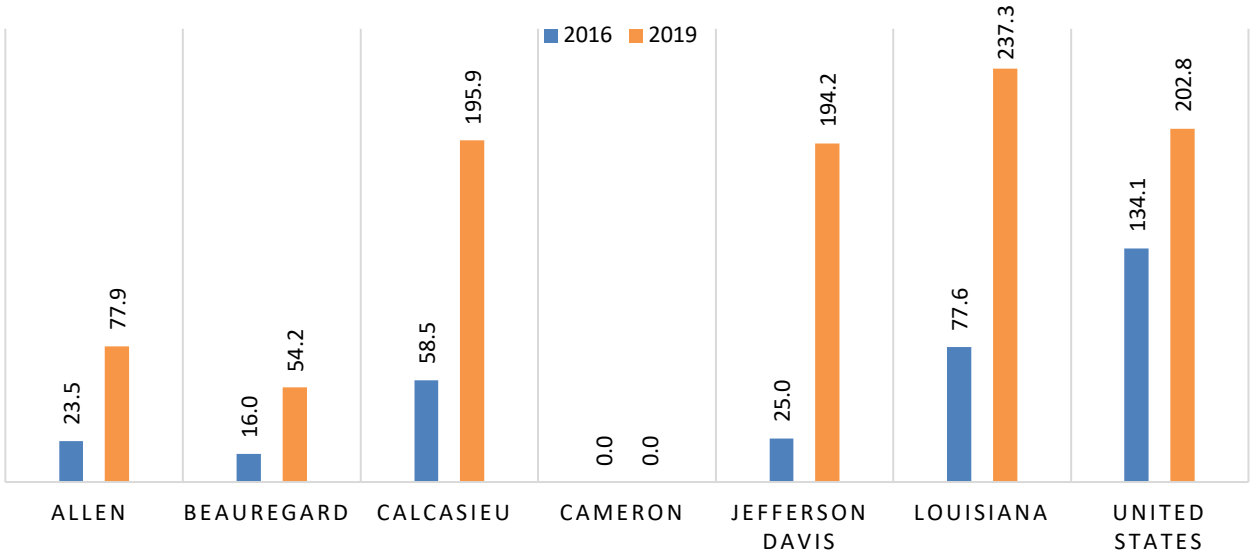
Source: U.S. Department of Health and Human Services' Health Resources and Services Administration

Looking at a regional perspective, County Health Rankings reported the rate of mental health providers is highest in Calcasieu Parish at 195.9 per 100,000 population when compared to the remaining parishes; Jefferson Davis follows closely at 194.2. Beauregard Parish reported a rate of 54.2 per 100,000 population, more than four times lower than the state (237.3) and more than three times lower than the nation (202.8). It is important to note that access to mental health providers has increased markedly between the study years across the study area, the state, and the nation. (See Graph 15).

[14] National Alliance on Mental Illness: www.nami.org/Learn-More/Mental-Health-By-the-Numbers

Note: This indicator reports the rate of the county population to the number of mental health providers including psychiatrists, psychologists, clinical social workers, and counselors who specialize in mental health care.

Graph 15: Access to Mental Health Providers (Rate per 100,000 Population)

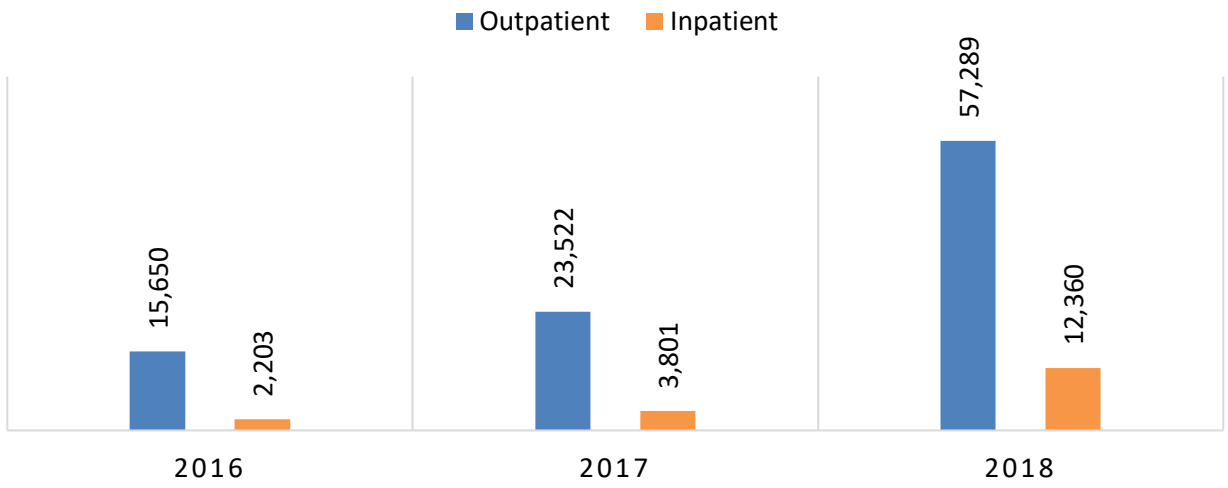


Source: County Health Ranking & Roadmaps

The Louisiana Department of Health showed in May 2018, 57,289 adults obtained outpatient mental health services in the state. The number of adults obtaining care has increased significantly over the years. From 2016 to 2017, there was a roughly 50 percent increase in the number of adults obtaining outpatient mental health services (from 15,650 to 23,522), while in 2017 there was a 140 percent increase in the number of adults seen for outpatient services (from 23,522 to 57,289). (See Graph 16).

Reviewing additional data, the number of adults receiving inpatient mental health services at a psychiatric facility as of May 2018 also rose steadily through the years. From 2017, the number of adults obtaining mental health care services tripled in 2018 (12,360). (See Graph 16.) The increase in adults receiving mental health services is a positive indicator that residents are obtaining the care they need.

Graph 16: Mental Health: Adults receiving Mental Health Services as of May 2018

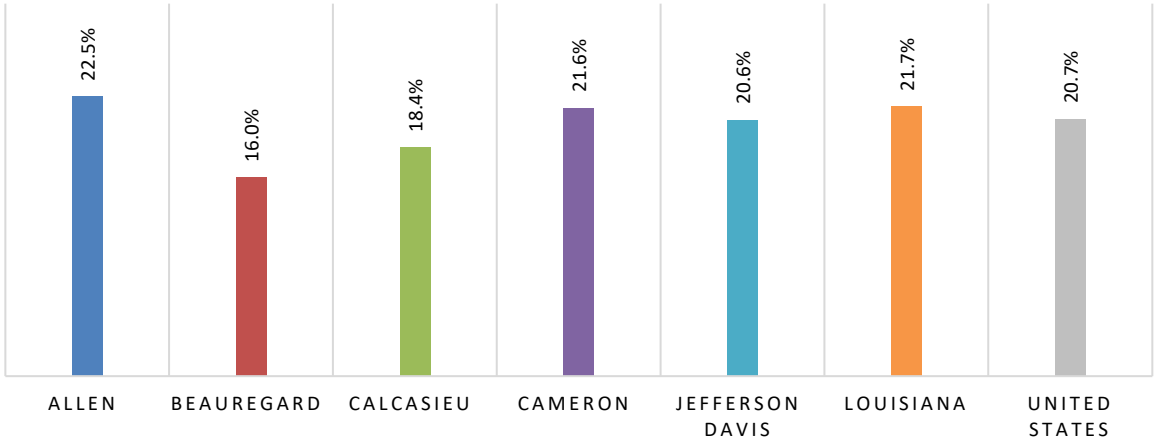


Source: Louisiana Department of Health

Additional regional data reveals that Allen Parish (22.5 percent) has a higher percentage of residents who lack social or emotional support when compared to the state (21.7 percent) and the nation (20.7 percent). This is followed by Cameron (21.6 percent) and Jefferson Davis (20.6 percent) parishes. (See Graph 17).

This indicator is significant because social and emotional support is critical for navigating the challenges of daily life, as well as for good mental health. Social and emotional support is also linked to educational achievement and economic stability.

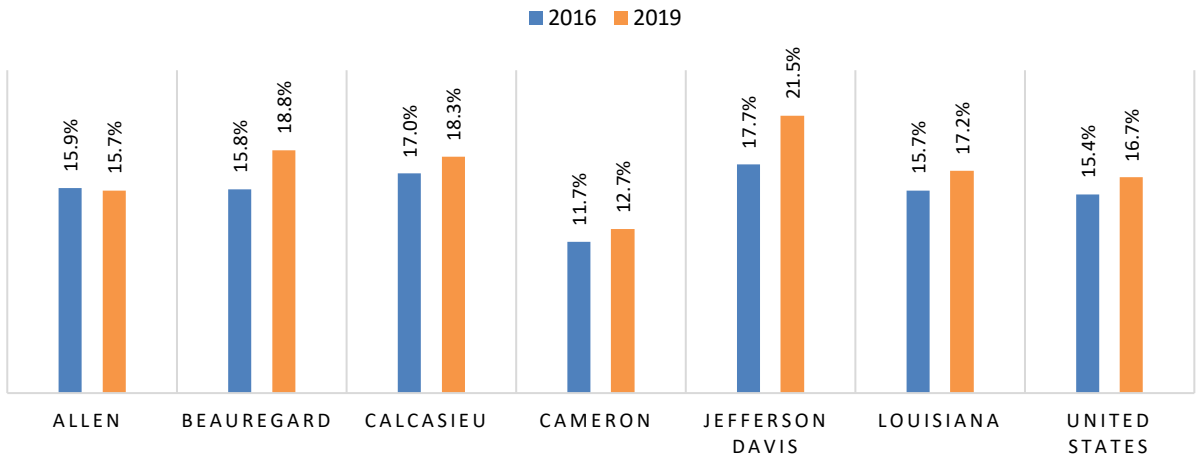
Graph 17: 2016 Lack of Social or Emotional Support



Source: Centers for Disease Control and Prevention; Behavioral Risk Factor Surveillance System

Data from the Centers for Disease Control and Prevention's Behavioral Risk Factor Surveillance System reported that residents in Beauregard (18.8 percent), Calcasieu (18.3 percent), and Jefferson Davis (21.5 percent) parishes have more Medicare residents with depression when compared to the remaining parishes in the study area, the state (17.2 percent), and the nation (16.7 percent). Cameron Parish (12.7 percent) reported the lowest percentage of Medicare residents with depression while Allen Parish is the only area to not report an increase in depression in its Medicare population between the study years. (See Graph 18).

Graph 18: Depression Medicare Population



Source: Centers for Disease Control and Prevention; Behavioral Risk Factor Surveillance System

Suicide, often a result of having a mental health issue, has seen an increase from 1999 through 2017. The age-adjusted suicide rate increased 33 percent from 10.5 to 14.0 per 100,000 per population, according to the CDC. Since 2008, suicide has ranked as the 10th-leading cause of death for all ages in the United States.[15] In 2016, suicide became the second-leading cause of death for ages 10-34 and the fourth-leading cause for ages 35-54. Unfortunately, the Healthy People 2020 target is to reduce suicide rates to 10.2 per 100,000 by 2020, but suicide rates have steadily increased in recent years.[16] It is also important to note that in 2017, the age-adjusted suicide rate for the most rural counties was 1.8 times the rate for the most urban counties (20.0 and 11.1 per 100,000, respectively).[17] Suicide is a preventable cause of death, and increasing access to services for residents can assist those in need. Depression in addition to other significant mental health problems often leads residents to attempt suicide as there is a sense of limited solutions to their problems.

[15] Centers for Disease Control and Prevention: www.cdc.gov/nchs/products/databriefs/db330.htm
[16] Centers for Diseases Control and Prevention: www.cdc.gov/nchs/data/databriefs/db330-h.pdf
[17] Centers for Disease Control and Prevention: www.cdc.gov/nchs/products/databriefs/db330.htm

According to the American Foundation for Suicide Prevention, suicide is the second-leading cause of death in Louisiana for ages 10-14, the third-leading cause for ages 15-34, the fourth-leading cause for ages 35-44, the sixth-leading cause for ages 45-54, the 10th-leading cause for ages 55-64, and the 16th-leading cause for ages 65 and older. Suicide was responsible for 722 deaths in Louisiana in 2017. This figure puts the suicide rate in Louisiana at 15.26 percent per 100,000 people, which is above the national average of 13.26 percent.[18]

Data from the hand-distributed survey showed that community residents struggle with mental health. In 2019, more than one-quarter of survey respondents told their doctor/professional they have a mental health concern (27.4 percent) compared to 2016 at 17.6 percent. There was also a slight increase of respondents who received services for a mental health issue, from 17.4 percent in 2016 to 18.3 percent in 2019. A slight decrease between the survey years identified respondents also reported that they needed services/treatment but did not receive the services/treatment they required (8.9 percent in 2016 vs. 7.2 percent 2019).

The top two reasons respondents did not obtain the mental services/treatment they need was because they felt that they could make it on their own without treatment (22.2 percent) and counseling/medication treatment was too expensive (22.2 percent).

Mental health affects all aspects of one's life, including health, relationships, employment, and environment. Poor mental illness contributes to poverty, homelessness, and high rates of suicide, all of which impact community members in the service area. According to community stakeholders, the lack of mental health facilities and providers is detrimental to residents. It was agreed upon that increasing access and having available and affordable services should be a priority to improve health outcomes.

Lengthy appointment times, affordability, traveling long distances to obtain care, and the overall negative stigma associated with having a mental health conditions are factors residents often face when seeking assistance for their disease.

It was noted that the lack of state funding in Louisiana for suicide prevention has played a vital role in the state's growing suicide rates. Funding cuts continue, and programs designed to prevent youth suicide and provide crisis response services and counseling are no longer in operation.[19] Regional organizations are working feverishly to fill the gaps of services that are now void.

Substance Abuse

In addition to the growing behavioral health problems, there is an increase use of drugs and alcohol. Substance abuse is often intertwined with those who also have a mental health illness. SAMSHA reported in its 2018 National Drug Use and Health Survey that an estimated 164.8 million people aged 12 or older in the United States (60.2 percent) were past month substance users (i.e., tobacco, alcohol, or illicit drugs). About two of five people aged 12 or older (108.9 million, or 39.8 percent) did not use

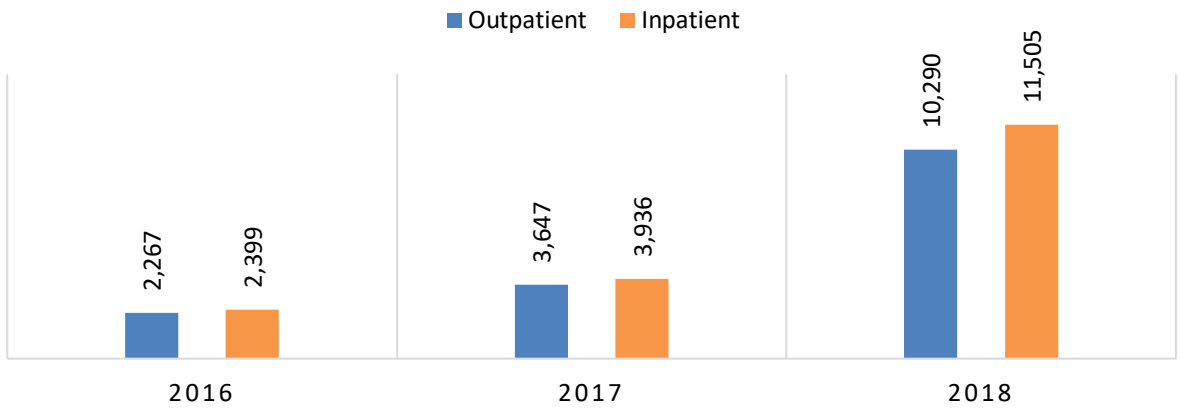
[18] American Foundation for Suicide Prevention: https://afsp.org/about-suicide/state-fact-sheets/#Louisiana
[19] Longleaf Hospital: www.longleafhospital.com/about/news-media/suicide-death-rate/

substances in the past month. The 164.8 million past month substance users in 2018 include 139.8 million people who drank alcohol, 58.8 million people who used a tobacco product, and 31.9 million people who used an illicit drug.[20]

Data from Graph 19 obtained from the Louisiana Department of Health shows that the number of adults receiving substance abuse services, both inpatient and outpatient, has increased exponentially since 2016. In May 2018, 10,290 adults obtained outpatient substance abuse services in the state or more than four times the number in 2016. The number of adults obtaining care has increased significantly over the years.

The number of adults obtaining outpatient substance abuse services increased from 2,267 in 2016 to 3,647 in 2017. (See Chart 19.) The increase number of residents utilizing this service is an optimistic sign that services for those in need are available within the state.

Graph 19: Substance Abuse: Adults Using Services as of May 2018



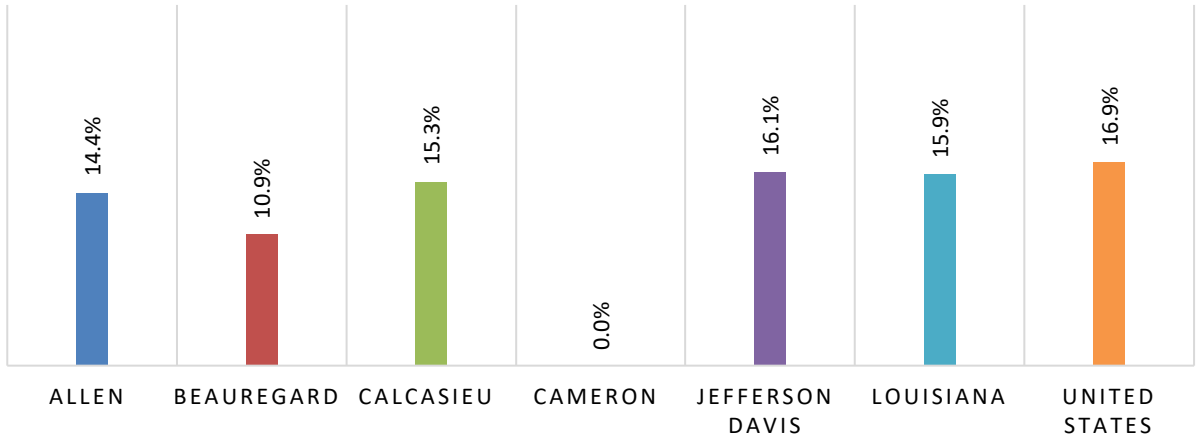
Source: The Louisiana Department of Health

In 2016, national data showed that residents in Jefferson Davis Parish (16.1 percent) aged 18 and older are heavy alcohol consumers; this is higher than the state (15.9 percent) and slightly lower than the nation (16.9 percent). Of the available data, Beauregard Parish showed the lowest percentage of residents 18 and older who are heavy drinkers (See Graph 20). Data for the current CHNA year was unavailable.

Note: This indicator is relevant because current behaviors are determinants of future health and this indicator may illustrate a cause of significant health issues, such as cirrhosis, cancers, and untreated mental and behavioral health needs. A heavy drinker is considered to have more than two drinks a day for men or one or more drinks a day for women.

[20] Substance Abuse and Mental Health Services Administration: www.samhsa.gov/data/report/2018-nsduh-annual-national-report

Graph 20 : 2016 Alcohol Consumption (Percent of Adults 18 and Older who are Heavy Drinkers)



Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System

Secondary data from SAMSHA revealed an estimated 47.0 million residents aged 12 or older were past month cigarette smokers, including 27.3 million people who were daily cigarette smokers and 10.8 million daily smokers who smoked approximately a pack or more of cigarettes per day. Fewer than one in six people aged 12 or older in 2018 were past month cigarette smokers. Cigarette use generally declined from 2002 to 2018 across all age groups. (Some of this decline may reflect the use of electronic vaporizing devices, such as e-cigarettes, as a substitute for delivering nicotine.)[21]

In regards to alcohol use, about 139.8 million Americans aged 12 or older were past month alcohol users, 67.1 million were binge drinkers in the past month, and 16.6 million were heavy drinkers in the past month. About 2.2 million adolescents aged 12 to 17 drank alcohol in the past month, and 1.2 million adolescents binge drank in that period. Although the percentage of adolescents who drank alcohol decreased from 2002 to 2018, about one in 11 adolescents in 2018 were past month alcohol users.[22]

In 2018, nearly one in five people aged 12 or older (19.4 percent) used an illicit drug in the past year, which is a higher percentage than in 2015 and 2016. The estimate of past year illicit drug use for 2018 was driven primarily by marijuana use, with 43.5 million past year marijuana users. The percentage of people aged 12 or older in 2018 who used marijuana in the past year (15.9 percent) was higher than the percentages from 2002 to 2017. This increase in past year marijuana use for people aged 12 or older reflects increases in marijuana use among both young adults aged 18 to 25 and adults aged 26 or older. In contrast, past year marijuana uses among adolescents aged 12 to 17 did not increase from 2014 to 2018.[23]

[21] Ibid.
[22] Ibid.
[23] Ibid.

Prescription pain reliever misuse was the second-most common form of illicit drug use in the United States in 2018 by 3.6 percent of the population. For people aged 12 or older and for young adults aged 18 to 25, the percentages who misused prescription pain relievers in the past year were lower in 2018 than in 2015 to 2017. Similar decreases in pain reliever misuse were observed for adolescents aged 12 to 17 and adults aged 26 or older in 2018 compared with 2015 and 2016, but not when compared with 2017. Among people aged 12 or older in 2018 who misused pain relievers in the past year, the most common main reason for their last misuse of a pain reliever was to relieve physical pain (63.6 percent). More than half (51.3 percent) of people who misused pain relievers in the past year obtained the last pain reliever they misused from a friend or relative.[24]

NSDUH also allows for estimation of opioid misuse, which is defined as the use of heroin or the misuse of prescription pain relievers. In 2018, an estimated 10.3 million people aged 12 or older misused opioids in the past year, including 9.9 million prescription pain reliever misusers and 808,000 heroin users. Approximately 506,000 people misused prescription pain relievers and used heroin in the past year. The percentage of people aged 12 or older in 2018 who were past year opioid misusers was lower than the percentages from 2015 to 2017, which was largely driven by declines in pain reliever misuse rather than by changes in heroin use.[25] In the past three years, according to America's Health Rankings, Louisiana's drug deaths have increased 37.0 percent from 12.9 to 17.7 deaths per 100,000 population.[26]

Reviewing primary data, community leaders reiterated the growing substance abuse problem in the Southwest Louisiana service area. According to community leaders, addiction is common; therefore, recovery support with health education should be a community goal to prevent residents from engaging in poor health behaviors. Being underinsured or uninsured, residents oftentimes are unsure how to obtain services and care as support is also difficult to secure.

Behavioral health disorders, which include mental illness and substance abuse, can lead to physical and emotional issues if left undiagnosed. Residents dealing with behavioral health issues need access to adequate services and resources as well as navigation and education on the illnesses. Communities need to continue to address the growing crisis. Cooperation, collaboration, and partnerships with community organizations and health care institutions fused with education and health information on prevention can assist underserved residents to close the gap for those in need.

Navigation

Heath system navigation is an approach to reduce health barriers to care. Residents with health and social support needs in primary care experience gaps in service delivery and often require assistance. Health system navigation serves residents in need.

Health care navigators provide skills and educate consumers to adequately access and self-manage their health care effectively. This hospital program provided within several departments of Lake Charles

[24] Ibid.
[25] Ibid.
[26] America's Health Rankings: www.americashealthrankings.org

Memorial Hospital connects people to preventative, primary, and specialty health care services. Health care navigators not only assist patients to get from a physical location, they also assist patients steer through the logistical considerations in receiving health insurance coverage or undergoing complex care management regimens.

Improving navigation to residents in a complex health system environment ensures and empowers health care consumers to be assertive and be successful self-managers to ensure their interactions can be more effective. Health care navigators are vital to the health system because they assist patients in understanding an industry that can often be complicated. Navigators help patients steer through the clinical care system. Responsibilities can include assisting patients to find and access treatment, understand their illnesses/disease, and understand their care plans. Without navigators, the inability to obtain assistance can hinder a patient's ability to obtain care or adequately recuperate from an injury.

Other staff members at the health system such as nurses and clinical workers are also helpful for health care navigation. Nurses and clinical workers can explain complex care and treatment needs, diagnoses, and care plans with patients. Clinical care navigators are also well-suited to streamline the discharge process, making discharge more efficient and educational for patients. The need for health system navigation was identified as an overall CHNA need; thus, LCMH will implore strategies in order to address the region's request.

Health Behaviors

Healthy behaviors can be defined as positive habits that residents actively participate in such as the engagement of regular physical activity, obtaining the recommended hours of sleep, not engaging in risky sexual activity, eating and following a healthy diet, and eliminating the use of tobacco and alcohol. Developing a healthy lifestyle is essential to addressing a specific health issue or maintaining one's health. A healthy lifestyle can reduce the likelihood of being diagnosed with a chronic disease and allow the body to be physically and mentally charged. Developing and maintaining a healthy lifestyle can permanently change one's life positively.

According to the American Public Health Association, four specific poor behaviors lead the nation in chronic diseases: physical inactivity, poor eating habits, tobacco use, and alcohol consumption. In 2014, nearly half of U.S. adults did not meet recommended guidelines for weekly physical activity.[27]

A diet full of fruits and vegetables helps reduce chronic diseases; unfortunately, less than 18 percent of adults in every state ate recommended amounts of fruit and less than 14 percent ate recommended amounts of veggies. U.S. children do not eat enough fruits and vegetables.[28]

[27] American Public Health Association: www.apha.org/what-is-public-health/generation-public-health/our-work/healthy-choices
[28] Ibid.

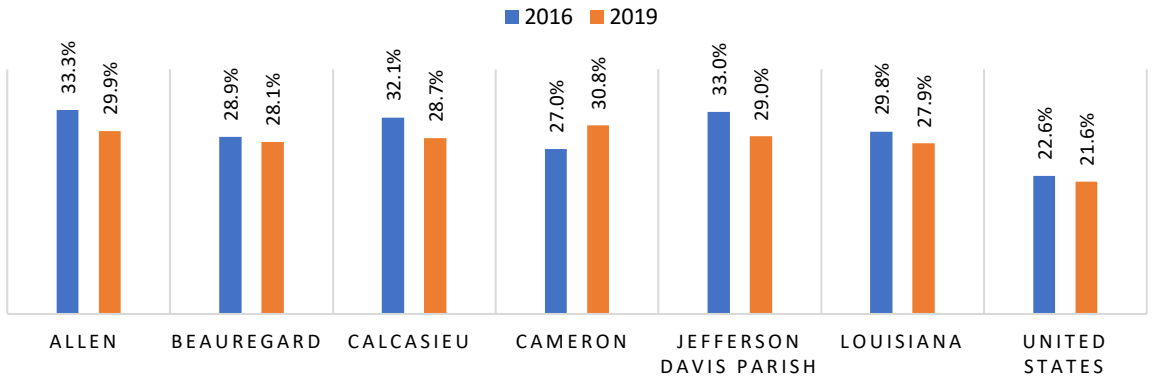
Lasting more than one-year, chronic diseases are broadly defined as conditions that require ongoing medical attention and/or limits daily activities. Chronic diseases such as heart disease, cancer, and diabetes are the leading causes of death and disability in the United States. They are also leading drivers of the nation's $3.3 trillion in annual health care costs.[29] Chronic diseases and conditions are among the most common, costly, and preventable of all health problems. Poor unhealthy behaviors can change. Screenings, check-ups, monitoring treatment, and patient education are methods in which chronic diseases can be properly managed.

Examining data related to exercise, adult residents ages 20 and over in Allen (29.9 percent), Calcasieu (28.7 percent), and Jefferson Davis (29.0 percent) parishes report no leisure time for activity, based on the question: "During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise? (See Graph 21).

Cameron Parish reports the highest percentage of adults 20 and older with no leisure time for physical activity at 30.8 percent; this is higher than state (27.9 percent) and national (21.6 percent) rates. Cameron Parish is also the only parish to report an increase in this rate from the 2016 CHNA study. This is a positive sign that residents are becoming more proactive toward their physical fitness regimen. (See Graph 21).

This health indicator is relevant as current behaviors are determinants of future health and may illustrate a cause of significant health issues, such as obesity and poor cardiovascular health. Physical activity is important to prevent heart disease and stroke, two of the leading causes of death in United States. In order to improve overall cardiovascular health, the American Heart Association suggests at least 150 minutes per week of moderate exercise or 75 minutes per week of vigorous exercise.

Graph 21: Physical Inactivity

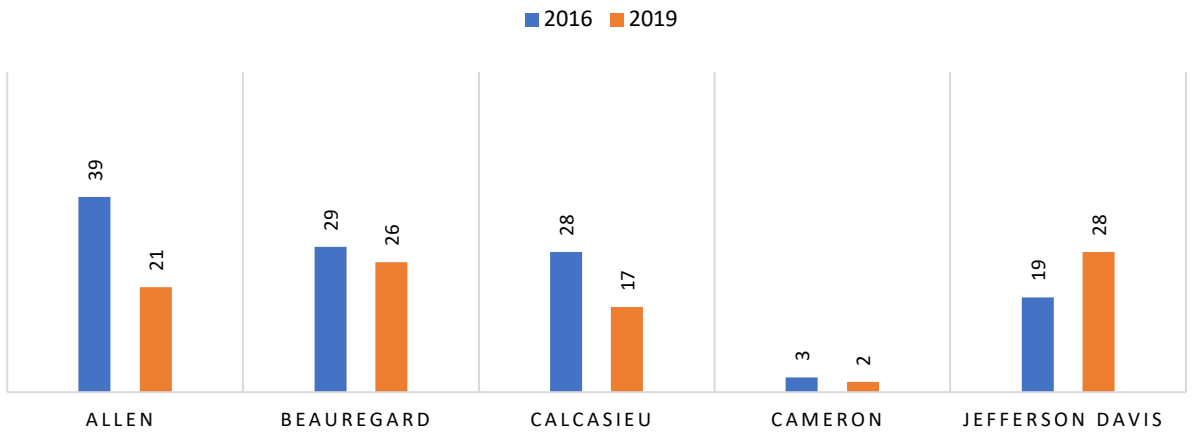


Source: Centers for Disease Control and Prevention

[29] Centers for Diseases Control and Prevention: www.cdc.gov/chronicdisease/about/index.htm

Chronic disease management in Louisiana should be a high priority focus. Data reviewed shows that all programs and initiatives at the state level are making an impact regionally. The parishes in the study area rank relatively fair in terms of health behavior rankings. Between the subsequent study years all of the parishes with the exception of Jefferson Davis improved in their ranking scores. Cameron Parish ranks exceptionally well with a ranking score of two. County Health Rankings examine tobacco use, diet and exercise, alcohol and drug use, and sexual activity to formulate their health behaviors ranking grade. (See Graph 22).

Graph 22: Health Behaviors



Source: County Health Rankings & Roadmaps

The use of alcohol is a factor in unhealthy behaviors. In 2014, nearly a quarter of U.S. adults engaged in binge drinking in the prior month. It was reported that more than 16 million adults had an alcohol use disorder.[30] The measurement of excessive alcohol consumption takes into consideration the amount of alcohol consumed and the frequency of drinking. In 2015, 27 percent of residents 18 and older reported binge drinking in the past month, while 7 percent reported heavy alcohol use in the past month. Over time, excessive alcohol consumption is a risk factor for high blood pressure, heart disease, fetal alcohol syndrome, liver disease, and certain cancers. In the short-term, excessive drinking is also linked to alcohol poisoning, intimate partner violence, risky sexual behaviors, and motor vehicle crashes. Alcohol-impaired crashes accounted for nearly one-third of all traffic-related deaths in 2016, more than 10,000 fatalities.[31]

[30] Ibid.

[31] County Health Rankings: www.countyhealthrankings.org/explore-health-rankings/measures-data-sources/county-health-rankings-model/health-factors/health-behaviors/alcohol-and-drug-use

While chronic disease is a leading cause of death in Louisiana, data collected from the Behavioral Risk Factor Surveillance System survey has produced projects based on the outcomes measures. The ongoing projects include: [32]

- Documentation of the association between lack of health insurance or inadequate health insurance, selected risk factors, and use of clinical preventive services.
- Plan and monitor programs and policies concerning health issues that include breast and cervical cancer screening and worksite physical activity.
- Comply with legislatively mandated health assessments (health report cards) and respond to legislative inquiries.
- Educate managed care organizations about the need for prevention programs on nutrition, tobacco use, and physical activity.

The Lake Charles Memorial study area warrants concern when it comes to high rates of chronic diseases. According to the hand-survey, the most pressing health problems in the community are cancer (13.3 percent), drug/alcohol use (10.8 percent), diabetes (9.0 percent), mental health (8.3 percent), obesity (6.7 percent), and heart disease (6.7 percent).

Hand-survey results found in 2019 and in 2016 more than half of survey respondents have been told they have high blood pressure 61.2 percent (2019) vs. 51.5 percent (2016). Close to half of survey respondents (48.4 percent) were overweight/obese and more than one-quarter reporting that they have diabetes (25.3 percent) in 2019.

In order to properly prevent and manage chronic diseases, a strategic emphasis on education will play a large part in the prevention and management of the disease.

Health behaviors significantly impacts an individual's health status and ability to overcome health issues in the region. It is critical for health care institutions, health providers, and community-based organizations to understand the regional health issues and be aware of what services and improvements are most needed.

Tobacco Use

As of 2015, more than 36 million U.S. adults still smoked cigarettes. Electronic cigarette use among youth has tripled in recent years, exposing them to the harms of nicotine and the risk of addiction.[33] Smoking kills 480,000 Americans, including about 41,000 from exposure to secondhand smoke yearly. Smoking causes cancer, heart disease, stroke, lung diseases, diabetes, and chronic obstructive pulmonary disease which includes emphysema and chronic bronchitis. On average, smokers die 10 years

[32] Centers for Disease Control and Prevention: www.cdc.gov/brfss/state_info/brfss_use_examples.htm
[33] American Public Health Association: www.apha.org/what-is-public-health/generation-public-health/our-work/healthy-choices.

earlier than non-smokers.[34] Many factors influence users to use tobacco, including race/ethnicity, age, education, and socioeconomic status.

The rate of smoking has declined from 20.9 percent (nearly 21 of every 100 adults) in 2005 to 14.0 percent (14 of every 100 adults) in 2017, and the proportion of smokers who have quit has increased.[35] Efforts through public health initiates have curbed and contributed to the decline of residents starting to smoke and those who are able to quit.

Examining data from the study area, Louisiana experiences poor rates of chronic health conditions. The state overall performs poorly in health behaviors when compared to top performers across the nation. The rates of adults smoking, obesity, food index, physical inactivity, access to exercise opportunities, excessive drinking, alcohol-impaired driving deaths, STI, and teen births are high. (See Table 4).

Table 4: Health Behaviors 2019[36]

	Louisiana (Percent)	Top Performers (Percent)
Adult Smoking	23.0	14.0
Obesity	35.0	26.0
Food environment index (0 worse; 10 best)	5.3	8.7
Physical Inactivity	29.0	19.0
Access to exercise opportunities	75.0	91.0
Excessive drinking	18.0	13.0
Alcohol-impaired driving deaths	34.0	13.0
Sexually transmitted infections (per 100,000 population)	679.3	152.8
Teen births	37	14

Source: County Health Rankings & Roadmaps

The Healthy People 2020 provides a framework for action to reduce tobacco. Research has identified effective strategies that will contribute to ending the tobacco use epidemic, including:[37]

- Increasing the price of tobacco products

[34] County Health Rankings & Roadmaps: www.countyhealthrankings.org/explore-health-rankings/measures-data-sources/county-health-rankings-model/health-factors/health-behaviors/tobacco-use
[35] Centers for Disease Control and Prevention: www.cdc.gov/tobacco/data_statistics/fact_sheets/adult_data/cig_smoking/index.htm
[36] County Health Rankings & Roadmaps: www.countyhealthrankings.org
[37] Healthy People: www.healthypeople.gov/2020/topics-objectives/topic/tobacco-use

- Enacting comprehensive smoke-free policies
- Expanding cessation treatment in clinical care settings and providing access to proven cessation treatment to all smokers
- Implementing hard-hitting anti-tobacco media campaigns
- Fully funding tobacco control programs at CDC-recommended levels
- Controlling access to tobacco products, including e-cigarettes and combustible and non-combustible products
- Reducing tobacco advertising and promotion directed at children

Eliminating tobacco use at any age will yield significant health benefits. Residents who stop smoking will greatly reduce their risk of disease and premature death. The economic burdens of tobacco can be felt in all communities across the United States. It costs the nation about $170 billion annually to treat tobacco-related illnesses and another $156 billion in productivity losses. In 2006, more than $5 billion of that lost productivity was due to secondhand smoke.[38]

Societal factors influence tobacco use, and smoking remains high amount certain groups. High risk groups are men; people with low education who live below the poverty level; people geographically positioned in the Midwest and South; those who are uninsured, disabled, or have serious physiological distress; American Indians/Alaskan Natives/multiracial; and lesbians, gays, and/or bisexuals.[39] It is important to continue to provide health education, information, and assistance to those who are current smokers and those who need help quitting. Tobacco use is one of the most important preventable causes of premature death worldwide. Limiting tobacco use is one of the most effective ways to save lives and improve overall well-being.

Examining 2019 primary data from the hand-survey, 27.3 percent of survey respondents smoke; this is an increase from the previous survey year of 15.5 percent (2016). Close to one-third of respondents (30.7 percent) reported that they smoked in the past. It is clear that regional programming efforts toward the use of tobacco need to continue. Community leaders who were interviewed indicated that there are vast amounts of information related to the long-term effects of smoking; unfortunately, this poor behavior is still popular among certain populations in the state.

Health Literacy

While health literacy and health education are similar in notion, the CDC specifically defines health literacy as “the degree to which an individual has the capacity to obtain, communicate, process, and understand basic health information and services to make appropriate health decisions.” Health literacy is the end goal to strong patient education. It is the capacity a person has to do or accomplish

[38] Ibid.
[39] Centers for Disease Control and Prevention: www.cdc.gov/tobacco/data_statistics/fact_sheets/adult_data/cig_smoking/index.htm

something. Health literacy skills are those people who realize their potential in health situations. They apply these skills either to make sense of health information and services or provide health information and services to others.[40]

Education plays a role in an individual's ability to make informed health decisions and effectively navigate today's complex health care delivery system. Understanding health issues and successfully implementing treatment plans is essential to managing chronic conditions and preventing complications and/or hospitalizations. Patients with language barriers, limited English speaking skills, and low levels of educational attainment are especially vulnerable to poor health outcomes. Learning and understanding concepts related to and around health education is essential to improve the overall general health of an individual.

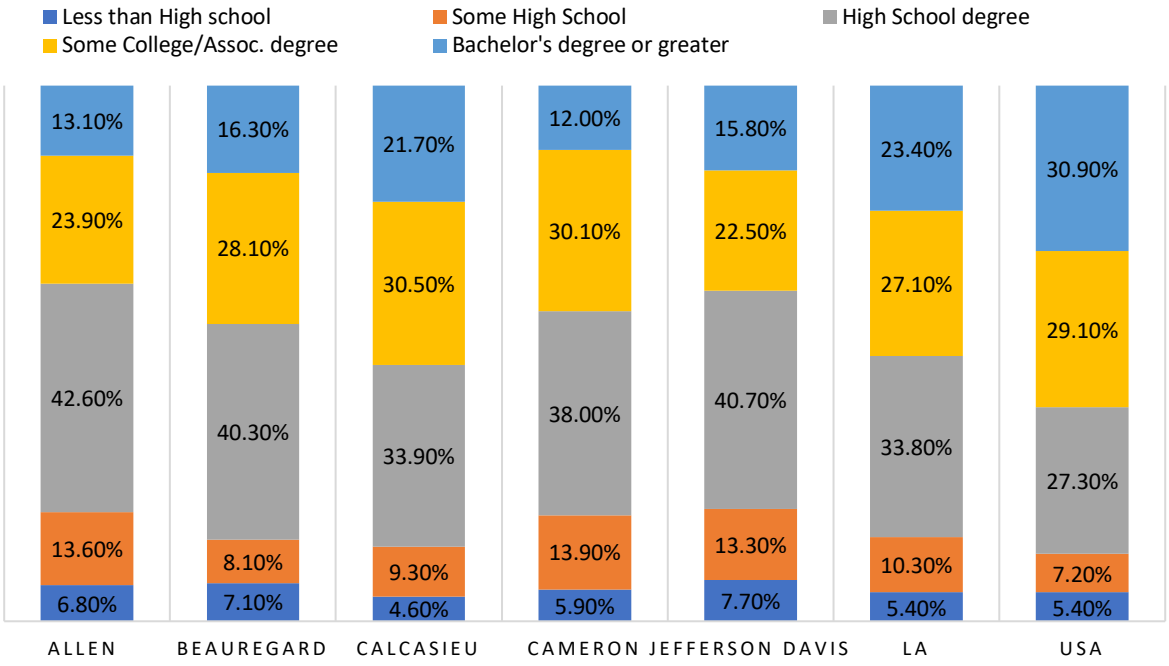
According to the World Health Organization, health education is any combination of learning experiences designed to help individuals and communities improve their health by increasing their knowledge or influencing their attitudes.[41] Health care professionals, schools, and community-based organizations work hard to disseminate health information to residents in the LCHM service area. However, low educational attainment levels can limit an individual's ability to interpret health information and apply this knowledge in a way that improves their health status.

The first step in moving toward leading a healthy life and taking the steps necessary to properly manage health conditions is having the necessary health education. While education can lead to better jobs and higher incomes, notable studies show that better-educated individuals live longer, healthier lives than those with less education, and their children are more likely to thrive. A study performed by the Robert Wood Johnson Foundation shows that an additional four years of education reduces a range of health risks, leading to decreased risk of heart disease by 2.2 percent, diabetes by 1.3 percent, and obesity by 5 percent.[42]

The educational attainment of residents in each parish reveals that more than one-third of parish residents have only a high school diploma; these figures are higher than the nation. Thus, the percentage of parish residents who have a bachelor's degree or more is smaller when compared to the state and the nation. (See Graph 23).

[40] Centers for Disease Control and Prevention: www.cdc.gov/healthliteracy/learn/index.html
[41] World Health Organization: www.who.int/topics/health_education/en/
[42] Robert Wood Johnson Foundation: "F as in Fat: How Obesity Threatens America's Future." Trust for America's Health. https://www.rwjf.org/en/library/research/2013/08/f-as-in-fat--how-obesity-threatens-america-s-future-2013.html

Graph 23 . Educational Attainment



Source: U.S. Census Bureau

The education attainment of hand-survey recipients shows that in 2019, 29.3 percent did not graduate school. More than one-quarter (27.5 percent) of respondents have a high school graduate or GED, with only 7.9 percent having a bachelor's degree or more. These data points dovetail data supplied at the national level.

Health education provides many positive benefits to individuals and the community, such as improved health status, enhanced quality of life, and reduced costs associated with health care.[43] Providing health education that is easily understood will arm residents with the tools they need to make informed decisions regarding their health and take an active role in managing their health care needs.

Community programs designed around healthy living and good healthy behaviors can assist residents in understanding the long-term benefits of healthy living as the goal of health programs is to modify and establish healthy behaviors. It is well-known that education plays a significant role in how residents can improve health outcomes as they are able to grasp the concepts of health education and the benefits of incorporating healthy behaviors into their life.

[43] Coalition of National Health Education Organizations http://www.cnheo.org/files/health_ed.pdf

Health Outcomes

Health outcomes reflect the physical and mental well-being of residents within a community. They are influenced by factors that affect health, from the quality of medical care services received to the availability of good jobs and affordable housing. Health factors are influenced by programs and policies at the local, state, and federal levels.

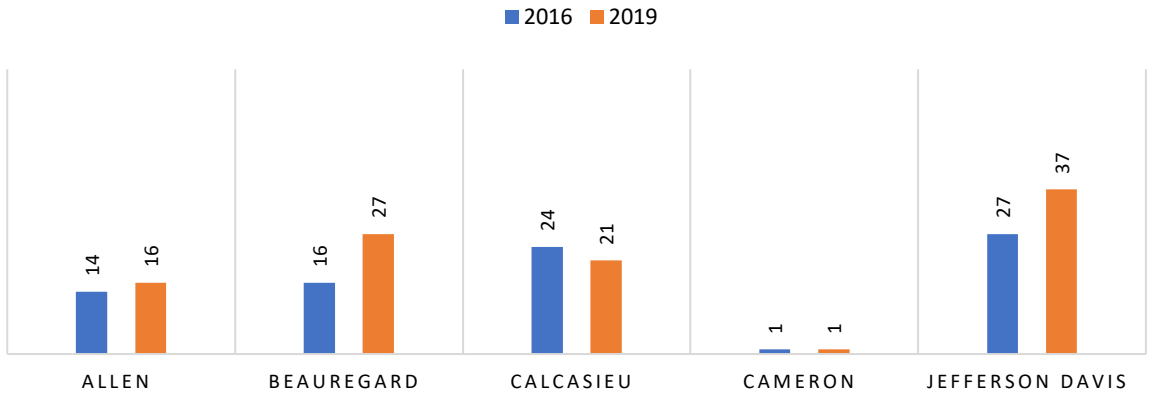
There are significant differences in health outcomes according to where we live, how much money we make, our race and ethnicity, and other characteristics. It is important to review data to understand where and why health outcomes differ across a county, how a variety of health factors combine to influence these outcomes, and how policies and programs affect the health for all.[44]

Health outcomes also refers to the impact health care activities have on people, including whether a given disease gets better or worse, the costs of care, and patient satisfaction with the care they receive.

Data compiled for health outcomes explores the region's indicators and provides a snapshot of people in one community and whether they are dying earlier than those in other communities. Available health services, nutritious foods, quality medical services, employment, and an individual's overall environment influences how long residents live. Length of life can vary greatly by place, income, and race and ethnicity. Additional metrics that are calculated toward health outcomes rankings include poor/fair health, poor physical health days, poor mental health days, and low birthweight.

The health outcomes ranking score for Allen, Beauregard, and Jefferson Davis parishes shows an increase from 2016 to 2019. This increased ranking score is detrimental to a community as this mark reveals a negative shift in measures related to length of life and quality of life. (See Graph 24).

Graph 24: Health Outcomes



Source: County Health Rankings and Roadmaps

[44] County Health Rankings: www.countyhealthrankings.org/explore-health-rankings/measures-data-sources/county-health-rankings-model/health-outcomes

Diabetes

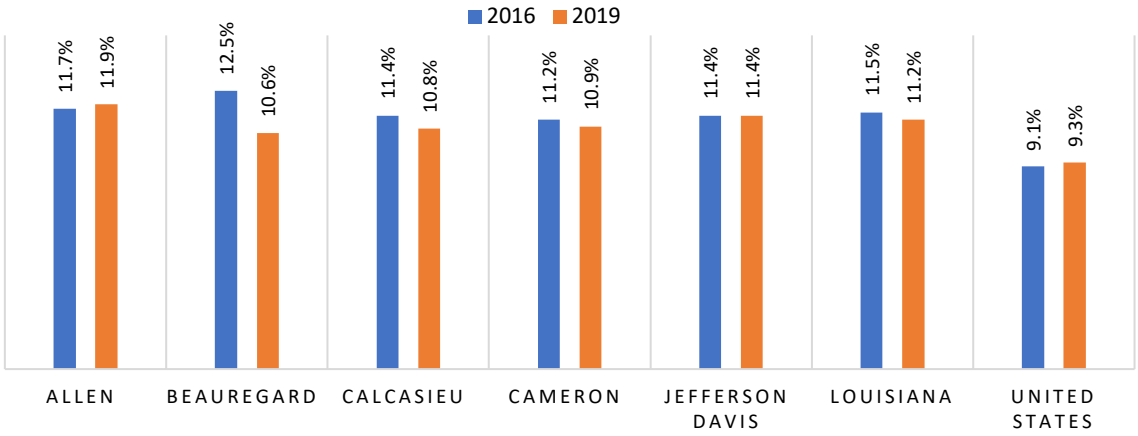
More than 30 million Americans have diabetes while another 84 million U.S. adults have prediabetes, a serious health condition in which blood sugar levels are higher than normal but not high enough yet to be diagnosed as type 2 diabetes. A person with prediabetes is at high risk of type 2 diabetes, heart disease, and stroke.[45] Residents who are overweight/obese, 45 years or older, have a family history, are sedentary, and are of a certain race or ethnicity are at a higher risk of having type 2 diabetes.

Diabetes increases the risk of heart disease and stroke and can lead to other serious complications, such as kidney failure, blindness, and amputation of a toe, foot, or leg. People with diabetes spend more on health care, have fewer productive years, and miss more workdays compared to people who don't have diabetes. In 2017, the total estimated cost of diagnosed diabetes was $327 billion, including $237 billion in direct medical costs and $90 billion in reduced productivity.[46]

In order to reduce the likelihood to being prediabetic, residents are encouraged to exercise, eat healthy, and eliminate tobacco use while organizations nationally and regionally are working closely to help reduce and modify risk factors in order to prevent or delay the development of type 2 diabetes and improve their overall health.

Beauregard Parish reports the lowest percentage of adults 20 and older who have diabetes in 2019 (10.6 percent). Allen Parish is the only area that reports an increased percentage of adults 20 and older with diabetes between the study years (11.7 percent in 2016 vs. 11.9 percent in 2019). The national rate also increased from 9.1 percent in 2016 to 9.3 percent in 2019. Examining this data point is important as diabetes is preventable in the United States and the disease may indicate an unhealthy lifestyle and puts individuals at risk for further health issues. (See Graph 25).

Graph 25: Adults 20 years and Older with Diabetes



Source: Centers for Disease Control and Prevention

[45] Centers for Disease Control and Prevention: https://www.cdc.gov/chronicdisease/resources/publications/factsheets/diabetes-prediabetes.htm
[46] Ibid.

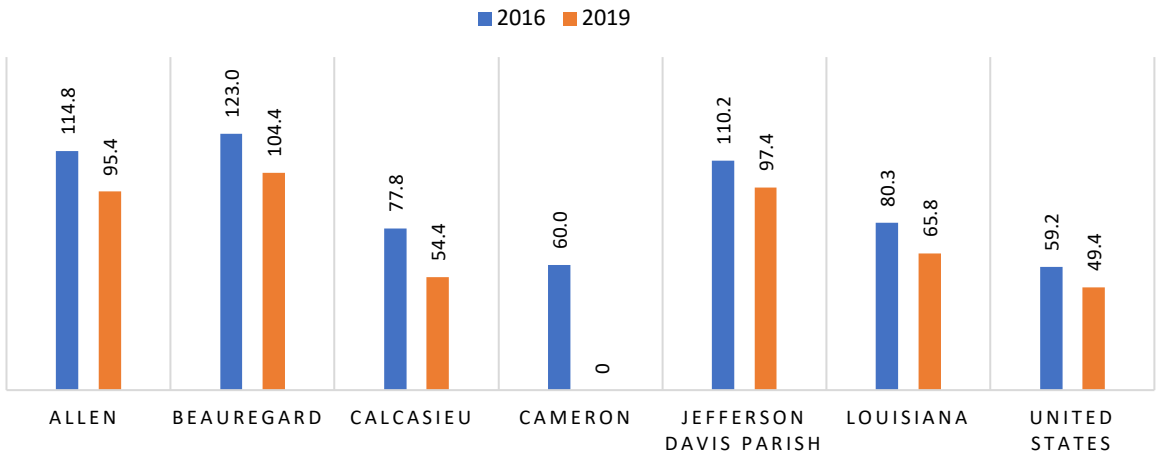
Roughly 28 percent of Americans with diabetes are undiagnosed, and another 86 million American adults have blood glucose levels that greatly increase their risk of developing type 2 diabetes in the next several years. Diabetes complications tend to be more common and more severe among people whose diabetes is poorly controlled, which makes diabetes an immense and complex public health challenge. Preventive care practices are essential to better health outcomes for people with diabetes.

Diabetes is the seventh-leading cause of death in the United States. Diabetes also increases the all-cause mortality rate 1.8 times, increases the risk of heart attack by 1.8 times, and is the leading cause of kidney failure, lower limb amputations, and adult-onset blindness. The estimated total financial cost of diabetes in the United States in 2012 was $245 billion, which includes the costs of medical care, disability, and premature death. The number of diabetic cases in the United States and worldwide is predicted to rise.[47]

Preventable hospital stays are relevant to health outcomes because analysis of Ambulatory Care Sensitive (ACS) discharges demonstrates a possible "return on investment" from interventions that reduce admissions (for example, for uninsured or Medicaid patients) through better access to primary care resources. ACS conditions include pneumonia, dehydration, asthma, diabetes, and other conditions that could have been prevented if adequate primary care resources were available and accessed by those patients.

Preventable hospital events across the study area, the state, and the nation decreased from 2016 to 2019. (Data in Cameron Parish for 2019 was unavailable.) Access to health care services, the implementation of the Affordable Care Act, and additional resources for residents may have played an instrumental role in reducing the preventable discharge rates for Medicare enrollees. (See Graph 26).

Graph 26: Preventable Hospital Events (Ambulatory Care Sensitive Condition Discharge Rate per 1,000 Medicare enrollees)



Source: Dartmouth College Institute for Health Policy Clinical Practice

[47] Healthy People: www.healthypeople.gov/2020/topics-objectives/topic/diabetes

High Blood Pressure

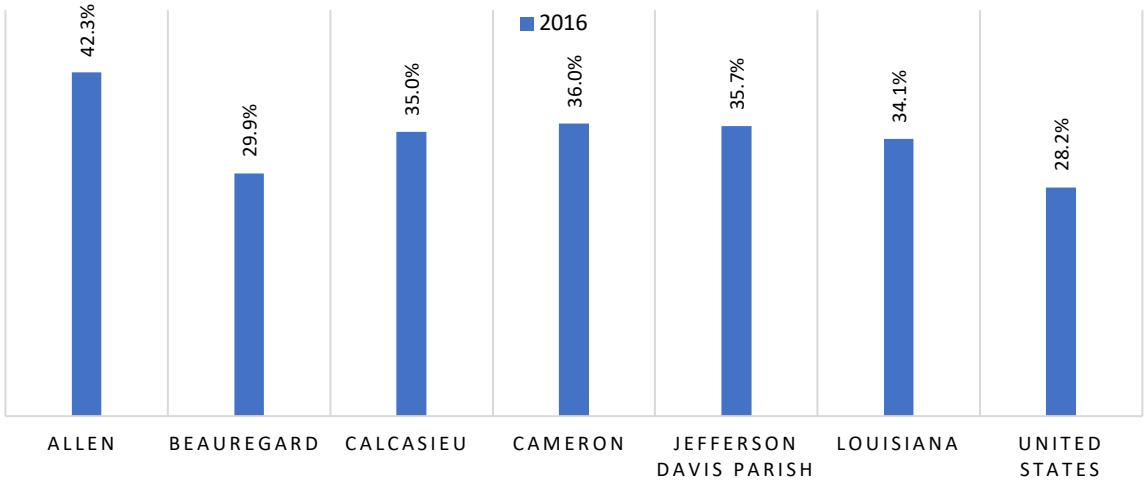
High blood pressure is a common condition and affects millions of Americans. About one in three adults, or about 75 million Americans, have high blood pressure. Only about half (54 percent) of these individuals have their high blood pressure under control. Many youths are also being diagnosed with high blood pressure. Unfortunately, this condition is quite common and having this condition increases the risk for heart disease and stroke, two of the leading causes of death for Americans.[48]

Individuals may have high blood pressure without any symptoms; uncontrolled raises one's risk of serious health problems, including heart attack and stroke. High blood pressure can be controlled with assistance from a physician, once detected

There are many risk factors associated with high blood pressure. They include age, race, family history, being overweight or obese, sedentary lifestyle, tobacco use, sodium intake, lack of potassium, alcohol abuse, stress, and certain chronic conditions.[49]

Data shows that more than one-third of residents in Allen Parish 18 and older (42.3 percent) have been told by a doctor that they have high blood pressure or hypertension. This rate is higher than the remaining study area parishes, the state (34.1 percent) and the nation (28.2 percent). Residents in Beauregard Parish report the lowest percentages of adults who have high blood pressure (29.9 percent). (See Graph 27).

Graph 27: Adults with High Blood Pressure

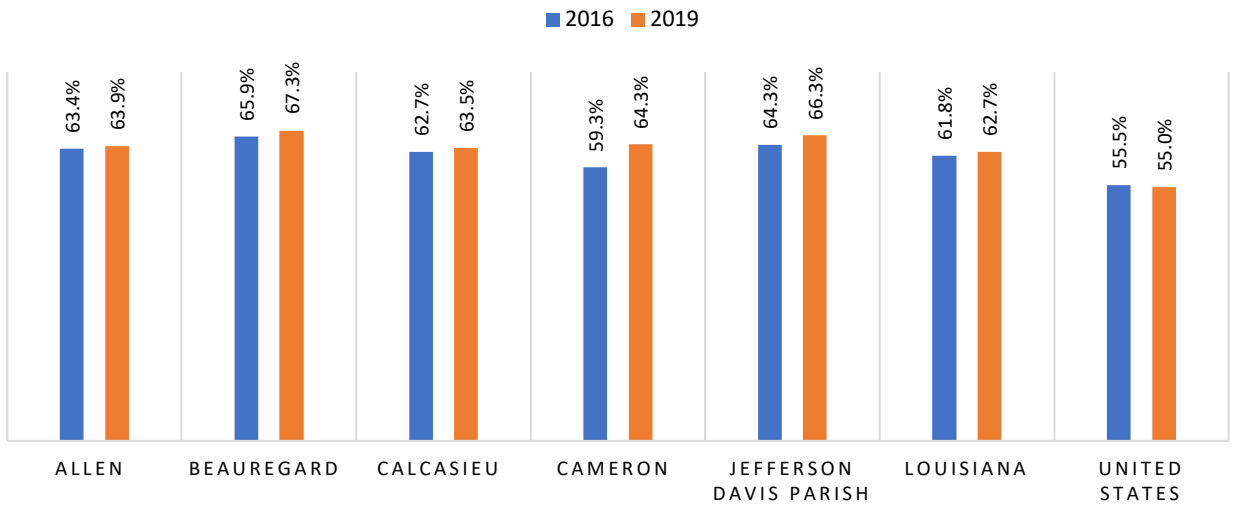


Source: Centers for Disease Control, Behavioral Risk Factor Surveillance System

[48] Centers for Disease Control and Prevention: www.cdc.gov/bloodpressure/
[49] Mayo Clinic: www.mayoclinic.org/diseases-conditions/high-blood-pressure/symptoms-causes/syc-20373410

Graph 28 shows that two-thirds of Medicare residents in Beauregard Parish (67.3 percent) have high blood pressure; this rate is higher than the state (62.7 percent) and the nation (55.0 percent).
All of the parishes reported in the study area had increased rates of adults with high blood pressure from 2016 through 2019. This data is vital as community organizations and health care institutions must identify why rates have increased within the study years.

Graph 28: Adults with High Blood Pressure (Medicare Population)



Source: Centers for Medicare and Medicaid Services

Creating better access to care allows residents to obtain comprehensive high-quality health services. Once access points are provided to residents, an individual's health status and health outcomes will improve as premature and preventable deaths are also reduced.

Information and steps taken can reduce or maintain one's blood pressure regardless of an individual's age. Preventing high blood pressure is completed by making healthy choices and managing health conditions.

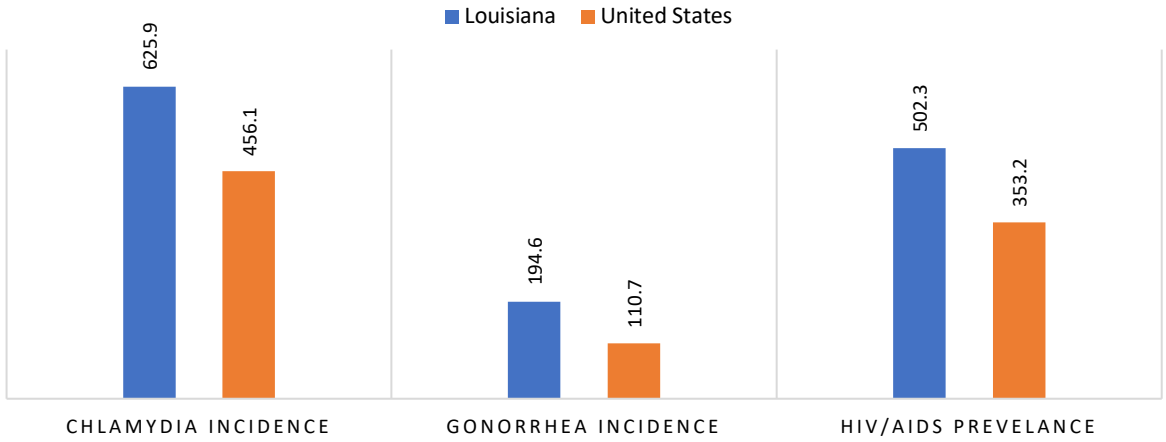
Sexually Transmitted Diseases

The World Health Organization (WHO) defines sexual health as a state of physical, mental, and social well-being in relation to sexuality. It requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination, and violence.[50]

[50] World Health Organization: www.who.int/topics/sexual_health/en/

Sexual health is important to individual health, both physical and mental, and a component of the broader national public health conversation. In 2001, the Surgeon General's Call to Action to Promote Sexual Health and Responsible Sexual Behavior (Call to Action) formally recognized the importance of a sexual health framework to enhance population health in the United States. Ten years after the Surgeon General's Call to Action, many measures of adverse health outcomes of sexual behavior (e.g., unplanned pregnancy and sexually transmitted infections) had not improved; they had, in fact, gotten worse. In response, in April 2010, the CDC held a consultation including 67 experts in the field of sexual health to discuss a health-based approach addressing sexual behavior to serve as a potential framework for public health action to advance the Surgeons General's 2001 Call to Action.[51] Rates of adverse health outcomes of sexual behavior per 100,000 population in Louisiana exceed the nation in sexually transmitted infections and teen births. (See Chart 29).

Graph 29: Comparison of Adverse Sexual Health Outcomes: Louisiana vs. United States



Source: Community Commons

The rate of chlamydia rose in all parish study areas, the state, and the nation from 2016 to 2019. Residents in Cameron Parish (190.7 per 100,000 population) have fewer incidence rates of chlamydia when compared to the remaining parishes. Jefferson Davis residents have the highest rates of residents with chlamydia at 496.2 per 100,000 population when compared to the remaining parishes.

Residents in Calcasieu Parish (169.0) have higher incidence rates of gonorrhea per 100,000 population when compared to the remaining parishes; this rate is higher than the nation (145.8). Beauregard (63.1) and Cameron (14.7) parishes have the lowest incidence rates of chlamydia. Calcasieu has the highest incident rate at 169.0 per 100,000 population; this rate is higher than the nation (145.8). Although

[51] Centers for Disease Control and Prevention: www.cdc.gov/sexualhealth/docs/SexualHealthReport-2011-508s.pdf

Beauregard Parish has the second-lowest gonorrhea incidence rate (63.1 per 100,000 population), this is more than double the rate reported from 2016.

The HIV incidence rate in Allen Parish (1,028.3) doubled between the study years. This rate is the highest when compared to the remaining parishes, the state (504.7) and nation (362.3). When compared to the rest of the parishes in the study area, the HIV incidence rate in Allen Parish is 2.5 times higher than the next highest reporting parish (Calcasieu, 388.3). This indicator is relevant as it is a measurement of poor health status and indicates the prevalence of unsafe sex practices.

Beauregard Parish has the lowest HIV incidence rate per 100,000 population at 133.1, almost four times less than the state (504.7) and almost three times less than the nation (362.3). Beauregard was the only parish to show a decline in its HIV incidence rate. This indicator is significant as HIV is a life-threatening communicable disease that disproportionately affects minority populations and may also indicate the prevalence of unsafe sex practices. (See Table 5).

Table: 5: Rates of Adverse Sexual Health Outcomes; 2016 vs. 2019

Parish	Chlamydia Incidence Rate (per 100,000 population)		Gonorrhea Incidence Rate (per 100,000 population)		HIV Incidence Rate (per 100,000 population)	
	2016	2019	2016	2019	2016	2019
Allen	223.2	354.3	101.8	77.9	582.7	1,028.3
Beauregard	284.8	362.0	30.4	63.1	137.9	133.1
Calcasieu	416.3	494.0	113.7	169.0	362.8	388.3
Cameron	103.8	190.7	14.8	14.7	0.0	0.0
Jefferson Davis	386.6	496.2	137.4	146.3	172.4	250.4
Louisiana	625.9	679.3	194.6	230.8	502.3	504.7
United States	456.1	497.3	110.7	145.8	353.2	362.3

Source: U.S. Department of Health and Human Services

Sexually transmitted diseases continue to pose a significant impact to the health of the population of Louisiana. Louisiana consistently ranks among the five states with the highest rates of sexually transmitted diseases (STDs). The reported rates of these STDS for the state were all significantly higher than the U.S. average, with primary and secondary syphilis rates doubling the U.S. rate. STD rates in Louisiana are much higher than rates in other southern states as well. The reported rates and increasing trends of these three conditions highlight a growing problem for the health of many Louisianans that increases the risk for contracting other infections, such as HIV.[52]

Unsafe sexual practices and having a high number of lifetime sexual partners can lead to sexually transmitted infections (STIs) and unplanned pregnancies, which can affect immediate and long-term

[52] Louisiana Department of Health. 2017 Louisiana Report Card: http://ldh.la.gov/assets/oph/Center-PHI/BRFSS/2017_Health_Report_Card.pdf

health as well as the economic and social well-being of individuals, families, and communities. Risky sexual behaviors can have high economic costs for communities and individuals. STIs cost the U.S. health care system almost $16 billion every year.[53]

Residents can engage in many avenues to reduce the risk of contracting a sexually transmitted infection. Knowing your partner's sexual history and limiting one's number of sexual partners will reduce the risk of contracting a STI, in addition to practicing safe sex by using condoms. Community-based organizations, agencies, and schools can implement programs and services to educate the public on STIs and promote the practice of safe sex to reduce the risk of spreading diseases.

[53] County Health Rankings & Roadmaps: www.countyhealthrankings.org/explore-health-rankings/measures-data-sources/county-health-rankings-model/health-factors/health-behaviors/sexual-activity

Conclusions

As Lake Charles Memorial Hospital enters the third cycle of completing and conducting its community health needs assessment, the health system will continue to work to close the gaps in health disparities and continue to improve services for residents by leveraging the region's resources and assets. The development of existing and newly established strategies can be successfully implemented with collaboration and partnerships from the region. Results from the CHNA in conjunction with the final implementation strategy plan will build upon an existing infrastructure of previous community health improvement efforts as these plans will enhance new developments.

Primary and secondary data analyzed supplied the Working Group with sufficient data and resources to identify key health needs. Local, regional, and statewide partners understand the CHNA is an important assessment toward future strategies that will improve the health and well-being of residents. LCMH will work closely with community organizations and agencies to address and resolve the identified needs. As the completion of the 2019 CHNA is finalized, an internal planning team from LCMH will begin the framework for the implementation strategy phase and its ongoing evaluation.

Community stakeholders are specific groups who have knowledge, relationships, and have first-hand interface with the underserved, disenfranchised, and hard-to-reach populations. Data from these specific groups have and will continue to assist LCMH's leadership in reducing the challenges residents often face when seeking services.

Lake Charles Memorial Health System will address these identified needs. The health system will complete the necessary action and implementation steps of newly formed activities or revise strategies to assist the community's underserved and marginalized residents. The region's resources and the ability to track progress related to the implementation strategies will be managed by the health system to meet the region's need. Tackling the region's needs is a central focus hospital leadership will continue to measure throughout the years.

Lake Charles
Memorial Health System

APPENDICES

Appendix A: General Description of Lake Charles Memorial Health System

General Description of Lake Charles Memorial Health System

Lake Charles Memorial Health System is the region's largest medical complex, serving the healthcare needs of Southwest Louisiana. Lake Charles Memorial Health System is locally owned and operated by a Board of Trustees from the community it serves. The hospital is a shareholder of Voluntary Hospitals of America (VHA) and is fully licensed by the Joint Commission on Accreditation of Healthcare Organizations. With more than 1,500 employees and 250 physicians, the hospital continues to be a pillar of the Lake Charles community, as the largest healthcare system and one of the largest employers in Lake Charles. The hospital has a main campus comprising 301 beds and a separate campus of 38 beds where the Memorial Hospital for Women is located. The health system also has a separately licensed long-term care facility.

Lake Charles Memorial's logo of four interlocking hearts exemplifies its dedicated mission of service, commitment, compassion, and community.

Everything Your Healthcare Should Be is the mantra – reflecting the hope, passion, and dedication Memorial has for improving and servicing the healthcare needs of our community.

General Description of Health System Cancer Center

The Cancer Center at Lake Charles Memorial Health System has cancer prevention services as well as early detection screenings. Lake Charles Memorial also offers diagnostic treatment, clinical options ranging from pain management to research to rehabilitation, and a patient navigator program. Lake Charles Memorial support services include dietary planning and discharge planning. Both patients and family members benefit from spiritual care, support services, home health services, and counseling.

Lake Charles Memorial has received accreditation from the American College of Surgeons Commission on Cancer (CoC). Lake Charles Memorial's Cancer Center has held CoC accreditation since 1993, renewed annually. Lake Charles Memorial also obtained an approval rating for the next three years based on seven commendations received because of compliance with 36 standards set forth by CoC. This is a voluntary program designating excellence and adherence to the high standards set forth by the Commission.

Lake Charles Memorial Cancer Center received a national award for quality in 2013: The Outstanding Achievement Award by the American College of Surgeons' (ACS) Commission on Cancer (CoC). The goal of this award is to identify centers that provide excellence in patient care. Only 74 accredited cancer treatment facilities in the United States earned a designation on this list.

The oncologists, surgeons, hematologists, technicians, and registered nurses at Lake Charles Memorial are uniquely dedicated, qualified, and capable. Most importantly, Lake Charles Memorial is passionate about its work and tireless in its efforts to serve patients with excellence.

For a complete list of services, visit www.lcmh.com.

Appendix B: Communities Served by Lake Charles Memorial Health System

Community Served by the Hospital

The hospital is located in the city of Lake Charles, Louisiana, in Calcasieu Parish. The City of Lake Charles is conveniently located off Interstate 10 between Houston, Texas, and New Orleans, Louisiana, and is 30 miles upstream from the Gulf of Mexico. Lake Charles is connected to the Gulf by means of a deep-water ship channel and is the seat and port of entry of Calcasieu Parish.

Lake Charles is the fifth-largest incorporated city in Louisiana, located on Lake Charles, Prien Lake, and the Calcasieu River. Lake Charles is a cultural, industrial, and educational center in the southwest region of the state. It is considered a major center of petrochemical refining, tourism, gaming, and education, with McNeese State University and Sowela Technical Community College. Because of the lakes and waterways throughout the city, metropolitan Lake Charles is often referred to as the Lake Area.

Defined Community

A community is defined as the geographic area from which a significant number of the patients utilizing hospital services reside. While the community health needs assessment considers other types of healthcare providers, the hospital is the single largest provider of acute care services. For this reason, the utilization of hospital services provides the clearest definition of the community.

The following table represented the study area focus for the 2019 CHNA. The ZIP codes are based on 80 percent of Lake Charles Memorial's patient discharges. More than 70 percent of Lake Charles Memorial's discharges originate in Calcasieu Parish; however, Lake Charles Memorial's patients also derive from Allen, Beauregard, Calcasieu, Cameron, and Jefferson Davis parishes.

A detailed map of Lake Charles Memorial's geographical location and the markings of its community is pictured on the following map. The map displays the hospital's defined community, which relates to the 23 ZIP codes that define the hospital's community. In 2016, 17 ZIP code areas were defined as the primary service area of Lake Charles Memorial Hospital. The 2019 ZIP codes correspond with the geographic information on the map. (See Table 6).

Table 6: 2019 CHNA ZIP Code – Primary Service Area/Study Area

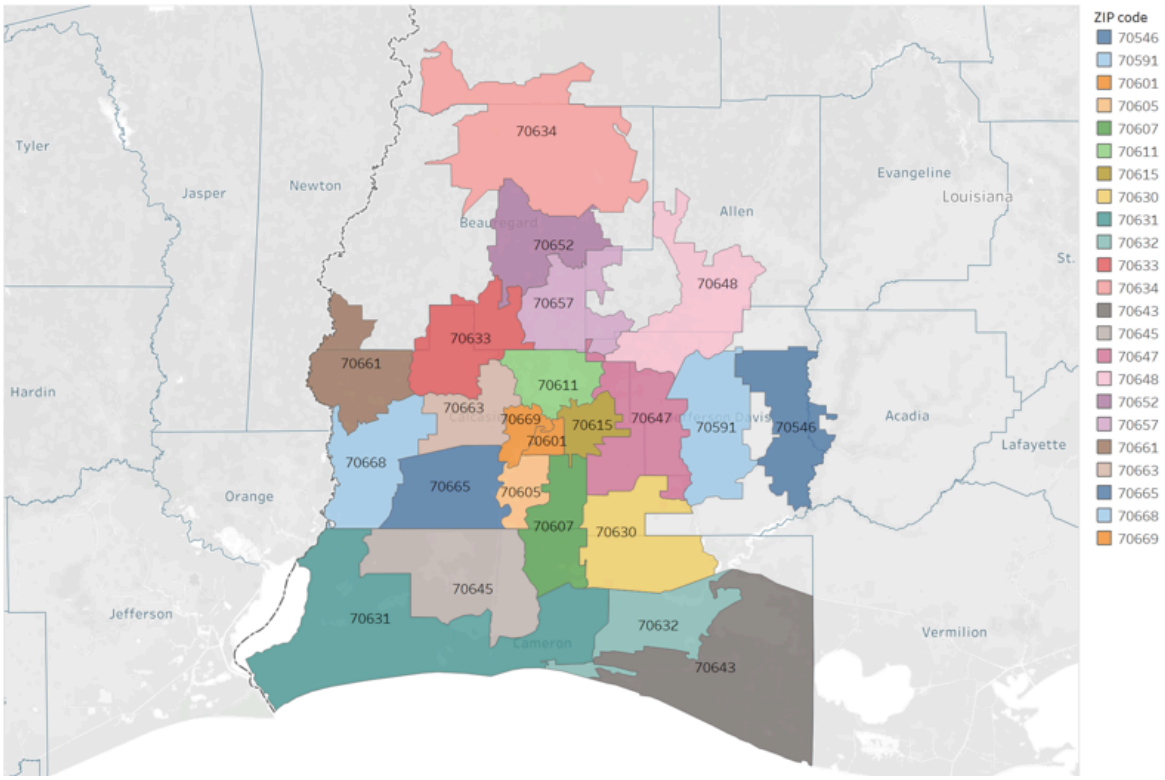
	City	ZIPS	Parish
1.	Bell City	70630	Calcasieu
2.	Dequincy	70633	Calcasieu
3.	Deridder	70634	Beauregard
4.	Iowa	70647	Calcasieu
5.	Jennings	70546	Jefferson Davis
6	Kinder	70648	Allen
7.	Lake Charles	70601	Calcasieu
8.	Lake Charles	70605	Calcasieu
9.	Lake Charles	70607	Calcasieu
10.	Lake Charles	70601	Calcasieu
11.	Lake Charles	70615	Calcasieu
12.	Lake Charles	70611	Calcasieu
13.	Longville	70652	Beauregard
14.	Ragley	70657	Beauregard
15.	Starks	70661	Calcasieu
16.	Sulphur	70663	Calcasieu
17.	Sulphur	70665	Calcasieu
18.	Vinton	70668	Calcasieu
19.	Welsh	70591	Jefferson Davis
20.	Westlake	70669	Calcasieu
21.	Cameron	70631	Cameron
22.	Creole	70632	Cameron
23.	Grand Chenier	70643	Cameron
24.	Hackberry	70645	Cameron

Study Area/Primary Service Area Details

Identification and Description of Geographical Community

The following map geographically illustrates Lake Charles Memorial Health System's study area/primary service area by showing the community ZIP codes, which are shaded. The majority of the community's population is concentrated in and around the city of Lake Charles. (See Map 3).

Map 3: 2019 CHNA ZIP Code Study Area/Primary Service Area



Appendix C: Primary Data

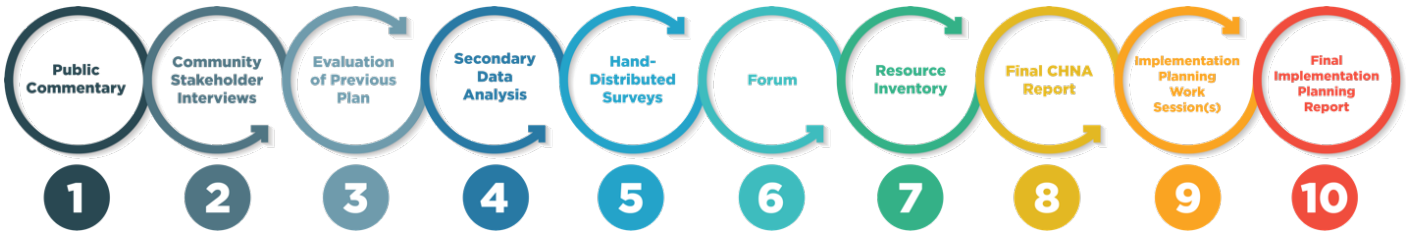
Process Overview

A comprehensive community-wide CHNA process was completed for Lake Charles Memorial Health System, connecting public and private organizations such as health and human service entities, government officials, faith-based organizations, and educational institutions to evaluate the needs of the community. The 2019 assessment included primary and secondary data collection that incorporated public commentary surveys, community stakeholder interviews, a hand-distributed survey, and an internal hospital forum.

Primary and secondary data brought about the identification of key community health needs in the region. Lake Charles Memorial Health System will develop an implementation strategy that will highlight, discuss, and identify ways the health system will meet the needs of the communities it serves.

Tripp Umbach worked closely with Lake Charles Memorial to collect, analyze, review, and discuss the results of the CHNA, culminating in the identification and prioritization of the community's needs at the local level. The flow chart below outlines the process of each project component in the CHNA (See Graph 30).

Graph 30: CHNA Process



Public Commentary

As part of the CHNA, Tripp Umbach solicited comments related to the 2016 CHNA and Implementation Strategy Plan (ISP) on behalf of Lake Charles Memorial Health System. The solicitation of feedback was obtained from community stakeholders identified by the Working Group. Observations offered community representatives the opportunity to react to the methods, findings, and subsequent actions taken as a result of the previous 2016 CHNA and implementation planning process. Stakeholders were posed questions developed by Tripp Umbach. Feedback was collected from eight community stakeholders related to the public commentary survey. The public comments below are a summary of stakeholders' feedback regarding the former documents. The collection period for the survey began late February 2019 and continued through June 2019.

When asked whether the assessment "included input from community members or organizations," six of the eight survey respondents reported that it did, one reported that it did not, and one was unsure.

Two survey respondents reported that the assessment reviewed did exclude community members or organizations that should have been involved in the assessment; four respondents did not feel any community members or organizations were excluded; two respondents did not know. The Volunteers of America and primary care physicians were identified groups who were excluded.

In response to the question, "Are there needs in the community related to health (e.g., physical health, mental health, medical services, dental services, etc.) that were not represented in the CHNA," one respondent agreed, three reported that it did not, and the remaining four respondents did not know.

Some barriers and needs that were not covered, according to survey respondents, included dental factors, policies to help with socioeconomic factors, and chronic diseases. The populations that were believed to have experience with barriers and needs are adults who are underinsured/uninsured.

All eight of the survey respondents indicated that the ISP was directly related to the needs identified in the CHNA.

According to respondents, the CHNA and the ISP benefited them and their community in the following manner (in no specific order):

- There was a larger scope and snapshot of the community's needs, but we need to identify ways to address the needs as a community overall.
- There was a strong focus on the region's needs, and we are able to measure those requirements and identify some avenues related to those wants.
- Socioeconomic factors were presented in the CHNA, but we need to have a stronger focus on this area in the future.

Community Stakeholder Interviews

As part of the CHNA phase, telephone interviews were completed with community stakeholders in the service area to better understand the changing environment. The interviews offered community leaders

an opportunity to provide feedback on the needs of the community, suggestions on secondary data resources to review and examine, and other information relevant to the study. Community stakeholder interviews were conducted during February 2019 and continued through June 2019. Community stakeholders targeted for interviews encompassed a wide variety of professional backgrounds including:

1. Public health experts;
2. Professionals with access to community health-related data;
3. Social service representatives;
4. Representatives of underserved populations; and
5. Government leaders.

Sixteen interviews were conducted with community leaders and stakeholders as part of Lake Charles Memorial Health System. The qualitative data collected from community stakeholders are the opinions, perceptions, and insights of those who were interviewed as part of the CHNA process. The information provided insight and added great depth to the qualitative data.

Within the interview and discussion process, overall health needs, themes, and concerns were presented. Within each of the overarching themes, additional topics fell under each category. Below are key themes community stakeholders communicated from the most discussed to the least discussed (in descending order).

1. Health Outcomes: Chronic conditions such as cancer, heart disease, hypertension, diabetes
2. Behavioral Health Issues: Mental health, drugs, and alcohol
3. Access to Care: Health appointments, health coverage, affordable prescription medication, transportation issues
4. Social Determinants of Health
5. Health Behaviors: Smoking, obesity, sexually transmitted infections
6. Community infrastructure: Housing
7. Health Education

Evaluation of 2016 Implementation Plan

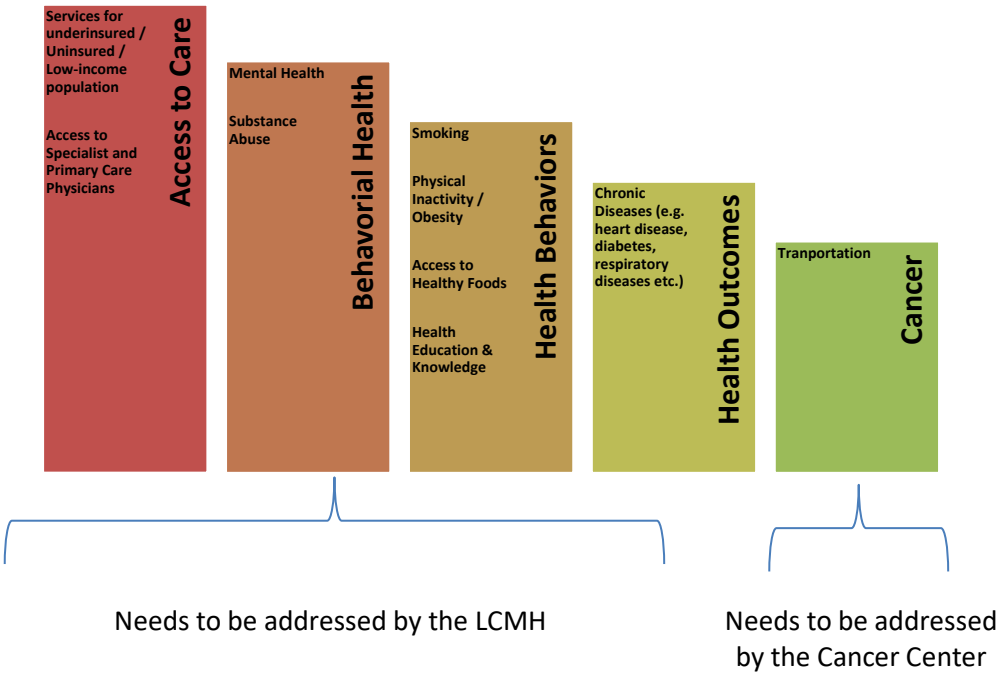
Representatives from Lake Charles Memorial Health System have worked over the last three years to develop and implement strategies to address the health needs and issues in the study area and evaluate the effectiveness of the strategies created in terms of meeting goals and combating health problems in the community.

Tripp Umbach received the 2016 CHNA implementation plan status and outcome summary assessments provided by the working group charged with assisting Tripp Umbach in completing the CHNA. Tripp Umbach provided the Lake Charles working group with an implementation strategy planning evaluation matrix to use for the 2016 implementation strategy planning. The purpose of the evaluation process is

to determine the effectiveness of the 2016 CHNA and implementation plan strategies, including each of the identified priorities: Access to care, behavioral health, health behaviors, and health outcomes. (See Graph 31). The identified CHNA priority, cancer, will be addressed by Lake Charles Memorial Health System Cancer Center. The Cancer Center will directly address this issue and the problems affecting residents surrounding the disease.

Tables 7, 8, and 9 reflect input from Lake Charles Memorial Health System on the problem statements for each past priority and strategies developed to address its effectiveness and how well each strategy has performed. Within the past three years the health system has modified some of its goals to better fulfill the identified needs from the 2016 CHNA. Specific metric information/measurable indicators can be obtained from the hospitals' administrative department. The self-assessment on each of the strategies are internal markers to denote how to improve and track each of the goals and strategies within the next three years.

Graph 31: 2016 Lake Charles Memorial Health System CHNA Needs



Implementation Plan Status/Outcome Summary

1) Access to Care

Outcomes: The health system has provided health screenings at fairs, seminars, wellness programs, and education events throughout the community. Attendance has increased at health events/health fairs.

Primary healthcare visits and specialty physician visits at the Moss Clinic have increased along with patient referrals. Household mailings were delivered to community residents to educate the public on the usage of urgent care vs. emergency room use.

The number of enrolled Medicaid/health insurance users decreased.

Table 7: Implementation Plan Status/Outcome Summary: Access to care

Community Need	Goals	Strategies	Progress
Access to Care	Provide preventative screenings for underserved populations to improve early detection of cancer, heart disease, and diabetes.	1. Broaden awareness regarding preventive health resources and screenings.	Green
	Improve access to care for underinsured /uninsured, low-income, and Medicaid populations.	1. Provide primary care access.	Green
		2. Create process to navigate and track ER and inpatient discharges patients to primary care.	Green
		3. Provide specialty care follow-up.	Green
		4. Continue Medicaid/UCC enrollment and financial assistance resources to ensure coverage to targeted populations.	Green

**The strategies from the previous implementation have been changed/modified to better fit the needs of the changing community and increase health system impact to community residents. The table above reflects those changes.*

Green=Completed
Yellow=Underway/In Progress
Red=Not Started

2) Mental Health

Outcomes: The health system has tracked the number of ER admissions and complaints regarding psychiatric evaluations. More beds have been made available, along with the addition of an ER holding unit. Recruitment and retention of the number of available psychiatrists have been added to the medical staff (tracking efforts have been executed).

Tracking the number of dual diagnosed patients and patients seeking care to detox facilities has been implemented.

Educational opportunities to the community in the form of education cards (postcards), open house, and educational seminars were provided to ambulance staff, police departments, the public, community leaders, and regional agencies. The health system has been tracking these efforts.

Table 8: Implementation Plan Status/Outcome Summary: Behavioral Health

Community Need	Goals	Strategies	Progress
Behavioral Health	Improve access to care for mental health patients.	1. Improve access to emergent mental health assessments/treatment via ER.	Green
		2. Improve access to available inpatient beds for mental health patients.	Green
		3. Communicate/educate community mental health resources available.	Green
	Improve access to care for substance abuse/detox programs for dual diagnosis patients who present mental health/substance abuse.	1. Improve detox holding process/area via ER.	Yellow
		2. Improve access to available inpatient beds for mental health/substance abuse patients.	Yellow
		3. Provide and identify patients in need of discharge plans.	Yellow
	Expand outpatient group therapy for substance abuse patients.	1. Provide and identify patients in need of discharge plans.	Yellow

**Goals to substance abuse changed due to policies to induce patients with dual diagnosis; providing better quality of care and community partnerships. The table above reflects those changes.*

Green=Completed
Yellow=Underway/In Progress
Red=Not Started

3) Health Behaviors

Outcomes: The health system has educated healthcare professionals on available community programs and resources to help promote and bring awareness of accessible regional services.

The health system has made efforts to track the number of smoking cessation participants in programs and is tracking the number of referrals made. Data is also collected on the number of health fairs where smoking cessation information is made available to the public.

The health system has conducted a community tobacco survey assessment. Findings from the results have not been completed.

Table 9: Implementation Plan Status/Outcome Summary: Health Behaviors

Community Need	Goals	Strategies	Progress
Health Behaviors	Reduce smoking among targeted populations.	1. Provide ongoing smoking cessation programs and prevention resources throughout health system and community network.	Green
		2. Host annual smoking cessation community-wide events in November.	Green
	Educate low income and/or high-risk populations on preventative health, value of physical activity and wellness.	1. Offer free health seminars and community outreach on improving access to healthy foods, choosing healthy eating, and on free or low-cost physical activity programs.	Green
		2. Provide preventative screenings to improve early detection of cancer, heart disease, and diabetes.	Green

**The health behaviors strategies were streamlined and modified to better fit the needs to the changing community and increase health system impact to the region to create better measurable goals. The table above reflects those changes. Health outcomes strategies were merged with health behaviors for additional community influence.*

Green=Completed
Yellow=Underway/In Progress
Red=Not Started

4) Cancer

Outcomes: The health system has created and tracked the decreased waiting period for medical screenings and also provided screenings for mammograms, colon screenings, and screenings for heavy smokers. The system also:

Tracked and provided information at health fairs/educational events where HPV information was distributed.

Provided genetic testing and counseling for patients while also increasing the number of patient navigators within the department.

Tracked and provided transportation services to patients in remote areas with limited transportation options. Offered gas gift cards to those in need through the patient navigation program.

Table 10: Implementation Plan Status/Outcome Summary: Cancer Care

Community Need	Identified Strategies	Strategies/Goals	Progress
Cancer Detection, Diagnosis, and Care	Improve cancer care access to low income/underserved populations.	1. Align services within the health system and community to identify patients who need further diagnostic workup for breast/colon/cervical cancer.	Yellow
	Improve cervical cancer, breast cancer, lung cancer, and colon cancer awareness.	2. Partner with community organizations to provide HPV vaccination education.	Green
		3. Increase number of mammograms, colon, and lung cancer screenings.	Green
	Improve coordination of cancer care.	1. Streamline registration of cancer patients into the system for initiation of care.	Green
		2. Facilitate Patient Navigation Program to identify and address patient barriers to care.	Green
Community Need	**Identified Strategies**	**Strategies/Goals**	**Progress**
Cancer Prevention and Awareness	Educate at-risk populations about cancer prevention.	1. Provide smoking cessation classes.	Green
		2. Distribute educational information.	Green

Community Need	Identified Strategies	Strategies/Goals	Progress
Cancer Transportation	Improve transportation options for cancer patients.	1. Strive to identify new transportation options or partners.	Yellow
		2. Expand patient awareness of transportation services in the community and assist with transportation resources.	Green
		3. Provide gas card assistance, when funding is available.	Green

Green=Completed
Yellow=Underway/In Progress
Red=Not Started

Secondary Data Profile

Tripp Umbach completed a comprehensive analysis of health status and socioeconomic environmental factors related to the health and well-being of residents in the community from existing data sources, such as state and county public health agencies, The Centers for Disease Control and Prevention (CDC), County Health Rankings, The Substance Abuse and Mental Health Services Administration (SAMHSA), Healthy People 2020, and other additional data sources. Tripp Umbach benchmarked data against state and national trends where applicable.

The secondary data profile includes information from multiple health, social, and demographic resources. Tripp Umbach used secondary data sources to compile information related to disease prevalence, socioeconomic factors, and behavioral habits.

The information supplied is an overview of the secondary figures collected as part of the CHNA. A robust secondary data report was provided to the Working Group of Lake Charles Memorial Health System in order to review and evaluate the needs of the region.

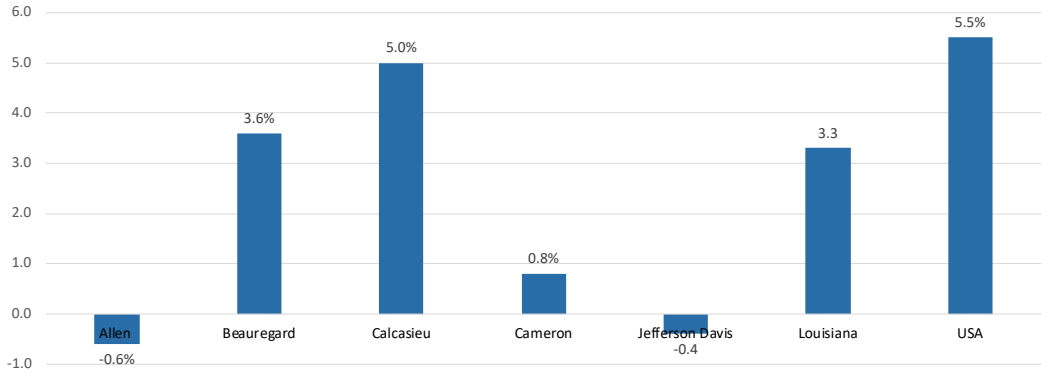
The data provided does not replace existing local, regional, and national sites but rather provides a comprehensive (not all-inclusive) overview that complements and highlights existing and changing health and social behaviors of community residents for the health system and social and community health organizations involved in the community health needs assessment.

- Information on Children
- Clinical Care
- Community Needs Index (CNI)
- County Health Rankings
- Crime and Safety
- Demographic Information
- General Health
- Health Behaviors
- Health Outcomes

- Mental Health
- Physical Environment
- Sexually Transmitted Diseases (STDs)
- Social and Economic Factors
- Substance Abuse

Demographics

Population Changes 2010-2017

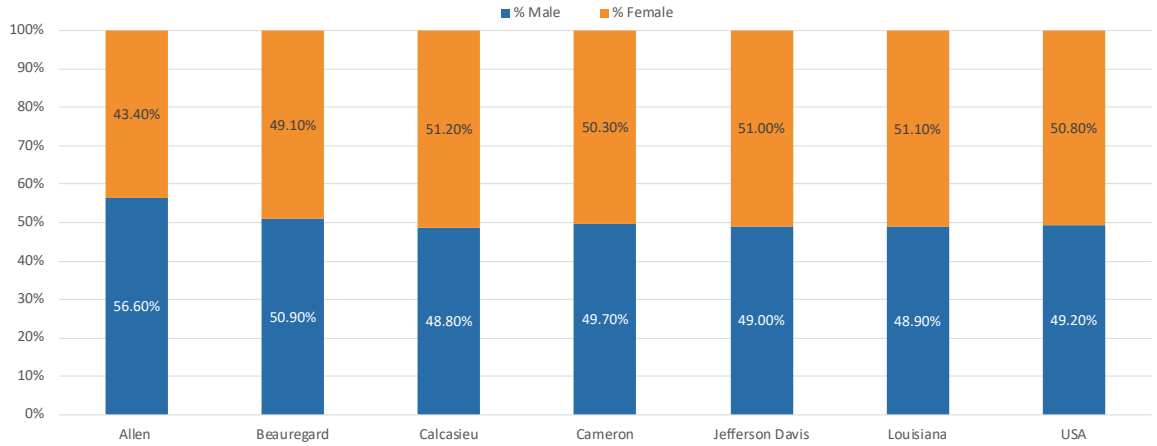


- Calcasieu Parish is forecast to see the largest population growth when compared to the remaining parishes and the state.

Source: US Census Bureau

Tripp Umbach

Gender Distribution 2013-2017

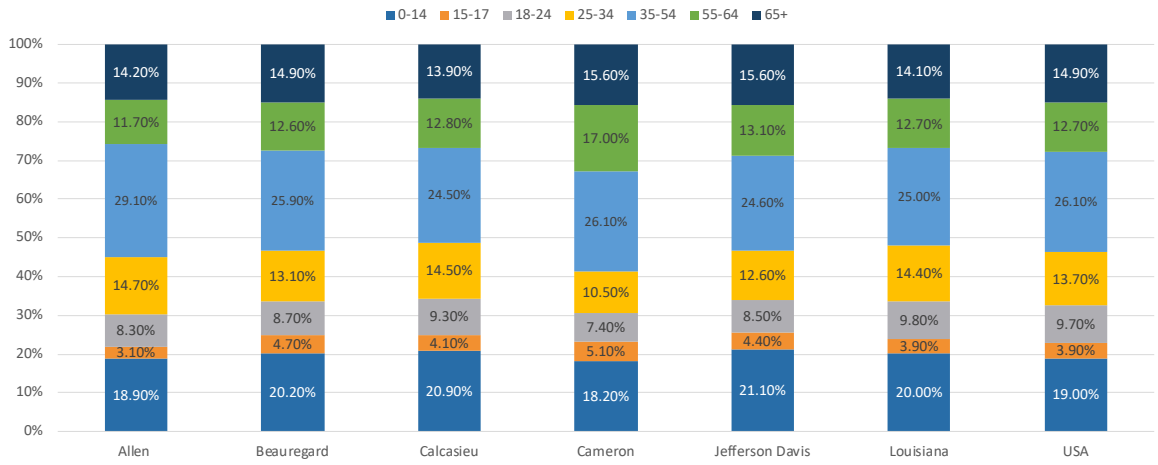


- The gender breakdown for the study area is generally consistent across the study area parishes and similar to state and national norms.

Source: US Census Bureau

Tripp Umbach

Age Distribution 2017

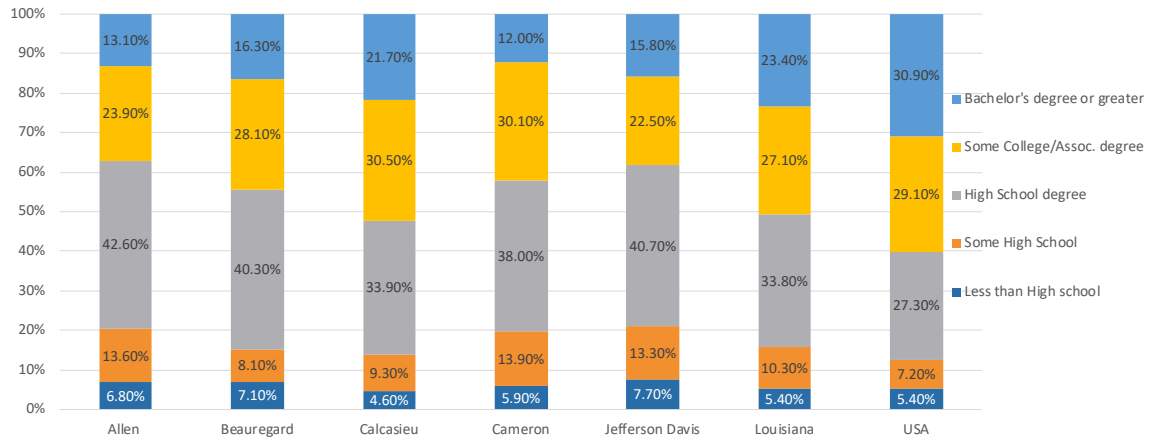


- Cameron Parish and Jefferson Davis Parish both report a high rate (15.60%) of residents aged 65 and older, higher than the state and nation.

Source: US Census Bureau

Tripp Umbach

Education in 2017– Population 25+

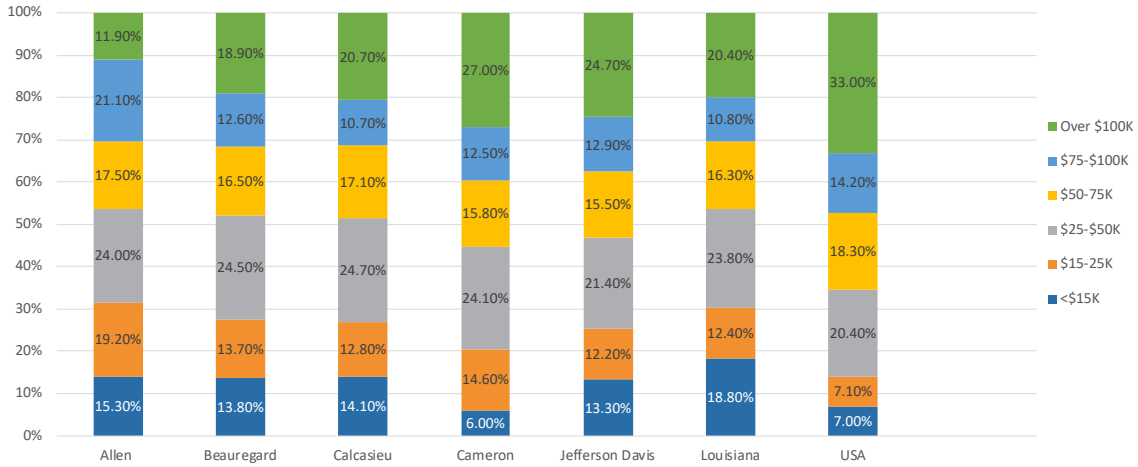


- Jefferson Davis Parish reports the highest rate of residents with less than a high school education at 7.70%.
- Calcasieu Parish reports the highest rate of residents with a Bachelor's degree or higher at 21.70%, while Cameron Parish reports the lowest rate of residents with a Bachelor's degree or higher at 12.00%.

Source: US Census Bureau

Tripp Umbach

Household Income 2017

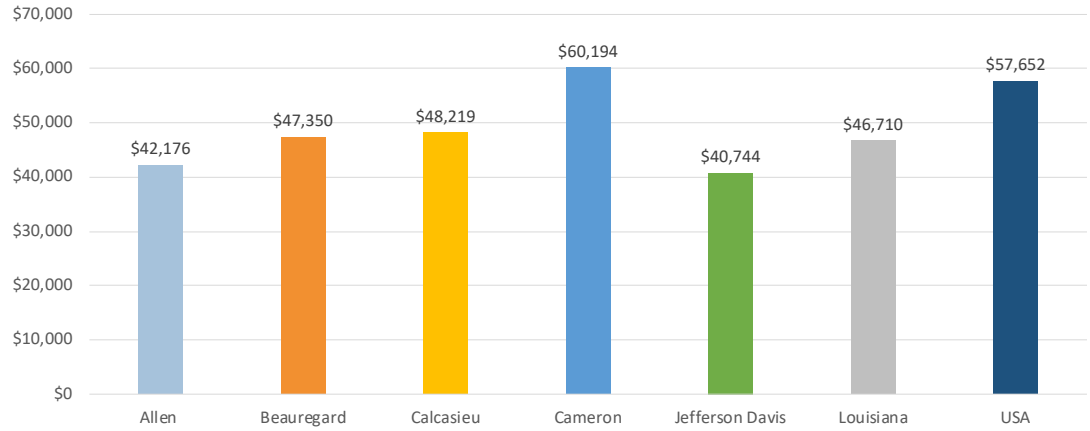


- Allen Parish reports the highest rate of households that earn less than $15,000 per year for the region (15.30%).

Source: US Census Bureau

Tripp Umbach

Average Household Income 2013-2017



- Jefferson Davis Parish reports the lowest average annual household income for the study area at $40,744.
- Cameron Parish reports the highest average household income ($60,194), higher than the State of Louisiana ($46,710) and the nation ($57,652).

Source: US Census Bureau

Tripp Umbach

Community Needs Index

Tripp Umbach obtained data from Dignity Health and Truven Health Analytics to quantify the severity of health disparities. Truven Health Analytics provides data and analytics to hospitals, health systems, and health-supported agencies.

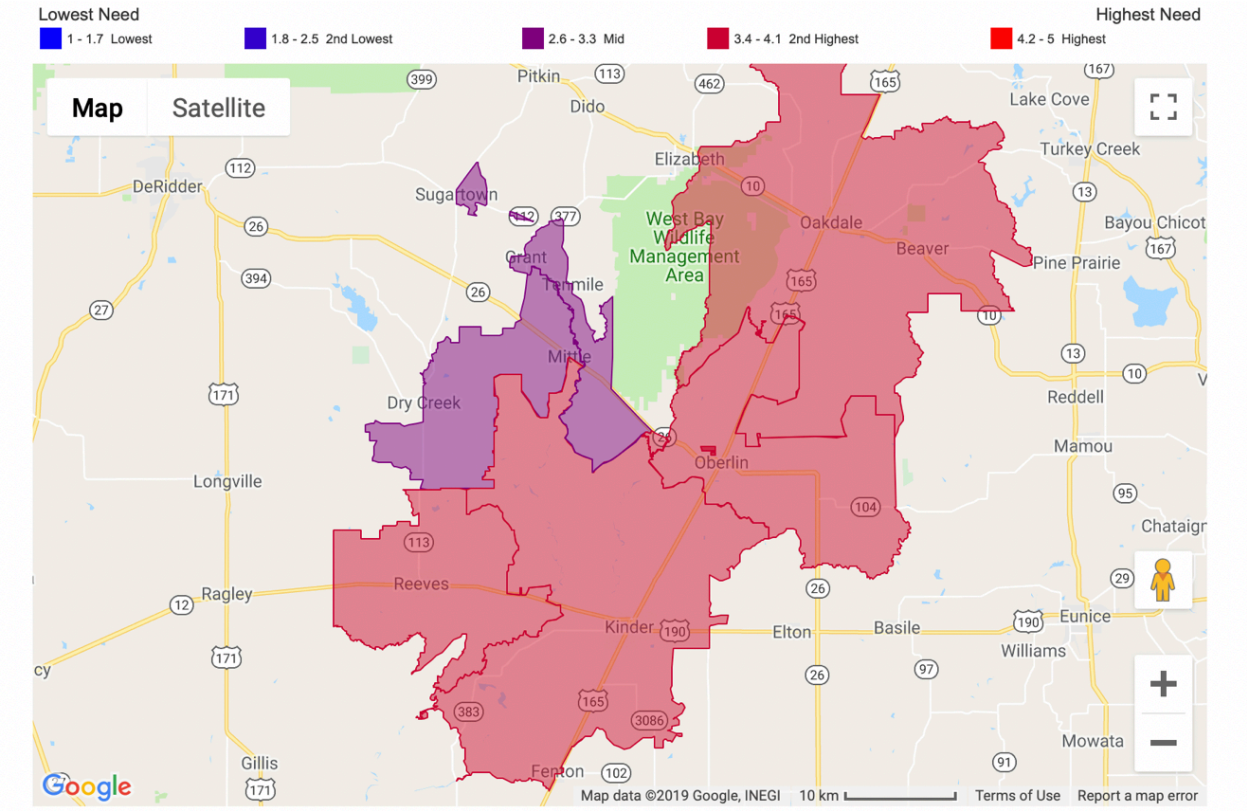
The Community Need Index (CNI) data source was used in the health assessment. CNI considers multiple factors that are known to limit healthcare access; the tool is useful in identifying and addressing the disproportionate and unmet health-related needs of neighborhoods. The five prominent socioeconomic barriers to community health quantified in the CNI are income barriers, cultural/language barriers, educational barriers, insurance barriers, and housing barriers.

A score of 5.0 represents a ZIP code area with the most socioeconomic barriers (high need), while a score of 1.0 indicates a ZIP code area with the lowest socioeconomic barriers (low need). A low score is the ultimate goal; however, ZIP codes with a low score should not be overlooked. Rather, communities should identify what specific entities are succeeding, which ensures a low score.

The ZIP codes reflected in the below slides reflect the primary service area of Lake Charles Memorial Health System. The CNI scores within each of the parish ZIP codes will be able to assist the hospital as the implementation planning strategies will require efforts in specific geographic locations.

Allen Parish

- ZIP code 70655 (Oberlin) has a CNI score 4.0 indicating residents face a high need of healthcare services.
- ZIP code 70654 (Mittie) has a CNI score of 2.6, which indicates that residents face the lowest need of healthcare services when compared to the remaining ZIP codes in the parish.



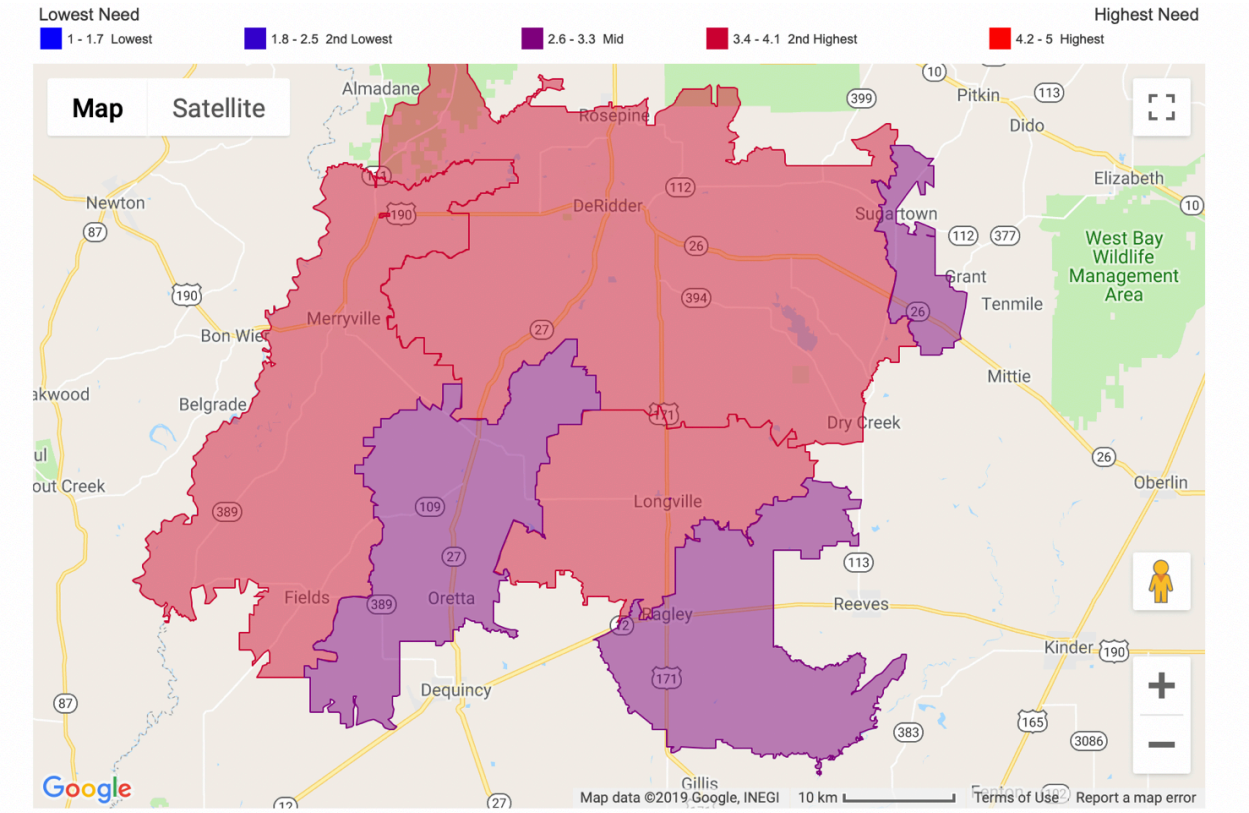
Mean(zipcode): 3.4 / Mean(person): 3.8 CNI Score Median: 3.7 CNI Score Mode: 3.8

Zip Code	CNI Score	Population	City	County	State
70637	2.8	925	Dry Creek	Allen Parish	Louisiana
70648	3.8	8574	Kinder	Allen Parish	Louisiana
70654	2.6	461	Mittie	Allen Parish	Louisiana
70655	4	2863	Oberlin	Allen Parish	Louisiana
70658	3.6	1344	Reeves	Allen Parish	Louisiana
71463	3.8	11040	Oakdale	Allen Parish	Louisiana

Note: The map above displays all of the ZIP codes in the parish. There is one ZIP code that represents the primary service area for LCMH.

Beauregard Parish

- ZIP code 70634 (Deridder) has a CNI score of 3.8, indicating residents face a high need of healthcare services.
- ZIP code 70657 (Ragley) has a CNI score of 3.0, which indicates that residents face the lowest need of healthcare services when compared to the remaining ZIP codes in the parish.



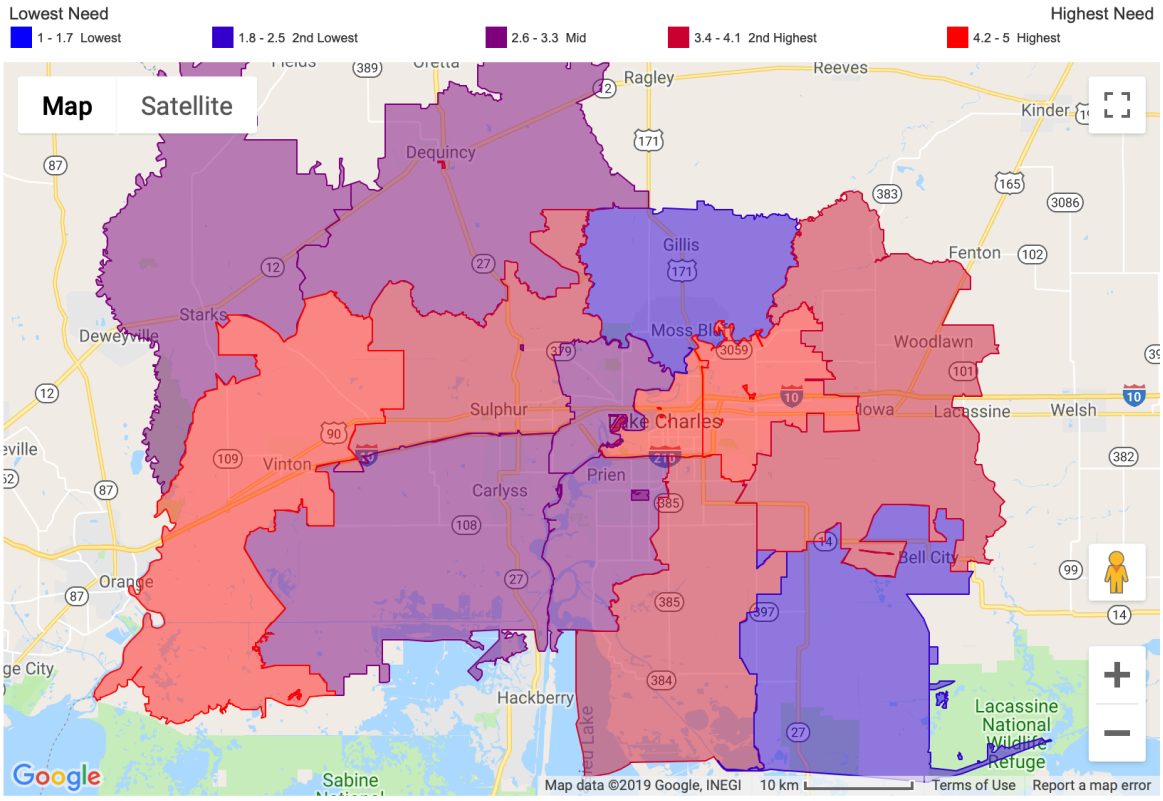
Mean(zipcode): 3.3 / Mean(person): 3.6 CNI Score Median: 3.3 CNI Score Mode: 3.2,3.4

Zip Code	CNI Score	Population	City	County	State
70634	3.8	26543	Deridder	Beauregard Parish	Louisiana
70652	3.4	2476	Longville	Beauregard Parish	Louisiana
70653	3.4	3141	Merryville	Beauregard Parish	Louisiana
70657	3	5164	Ragley	Beauregard Parish	Louisiana
70660	3.2	1821	Singer	Beauregard Parish	Louisiana
70662	3.2	489	Sugartown	Beauregard Parish	Louisiana

Note: The map above displays all of the ZIP codes in the parish. Three ZIP codes represent the primary service area for LCMH.

Calcasieu Parish

- ZIP code 70601 (Lake Charles) has a CNI score 3.8, indicating residents face a high need of healthcare services.
- ZIP codes 70611 (Lake Charles) has a CNI score of 1.8, which indicates that residents face the lowest need of healthcare services when compared to the remaining ZIP codes in the parish.



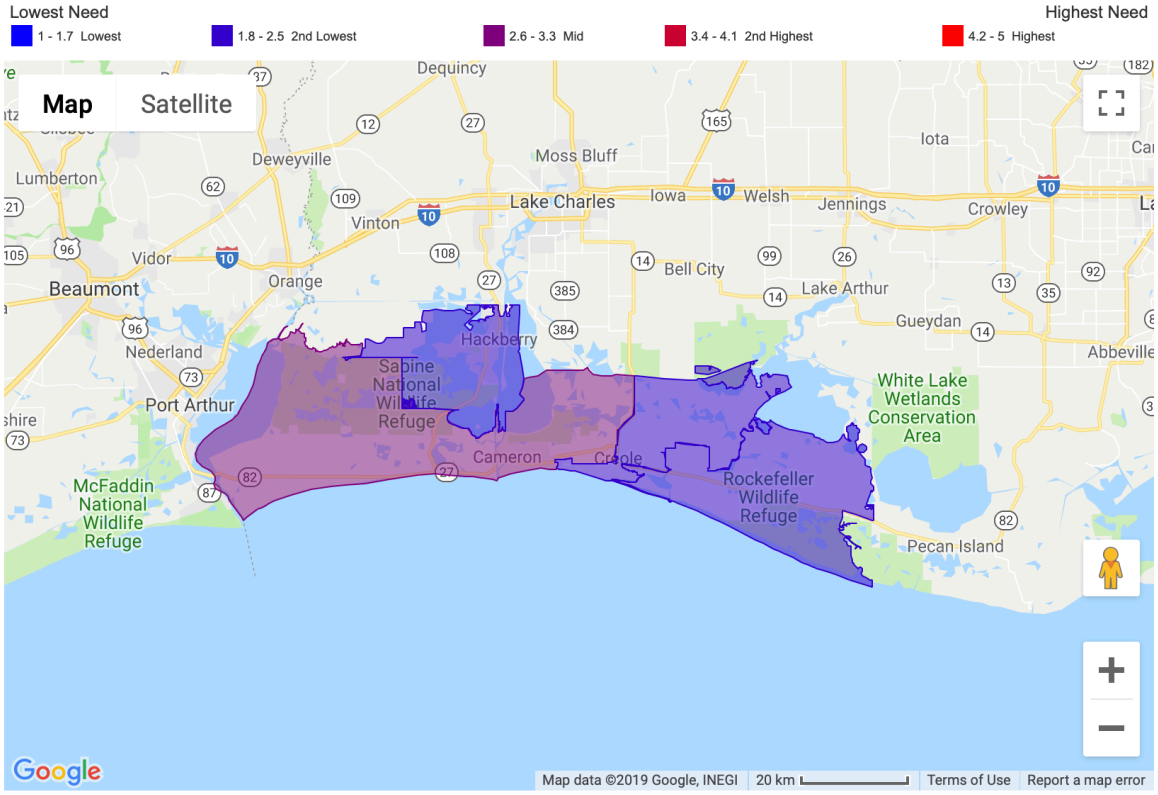
Mean(zipcode): 3.4 / Mean(person): 3.5 CNI Score Median: 3.2 CNI Score Mode: 3.2,3.6

Zip Code	CNI Score	Population	City	County	State
70601	4.8	32024	Lake Charles	Calcasieu Parish	Louisiana
70605	2.6	35831	Lake Charles	Calcasieu Parish	Louisiana
70607	4	27396	Lake Charles	Calcasieu Parish	Louisiana
70611	1.8	21002	Lake Charles	Calcasieu Parish	Louisiana
70615	4.6	14482	Lake Charles	Calcasieu Parish	Louisiana
70630	2.4	1849	Bell City	Calcasieu Parish	Louisiana
70633	3.2	8784	Dequincy	Calcasieu Parish	Louisiana
70647	3.6	10400	Iowa	Calcasieu Parish	Louisiana
70661	3.2	2220	Starks	Calcasieu Parish	Louisiana
70663	3.6	29008	Sulphur	Calcasieu Parish	Louisiana
70665	2.8	11466	Sulphur	Calcasieu Parish	Louisiana
70668	4.4	6617	Vinton	Calcasieu Parish	Louisiana
70669	3	10415	Westlake	Calcasieu Parish	Louisiana

Note: The map above displays all of the ZIP codes in the parish. Fourteen ZIP codes represent the primary service area for LCMH.

Cameron Parish

- ZIP code 70631 (Cameron) has a CNI score of 2.6, indicating residents face a high need of healthcare services.
- ZIP code 70645 (Hackberry) has a CNI score of 2.2, which indicates that residents in this ZIP code face the lowest need of healthcare services when compared to the remaining ZIP codes in the parish.



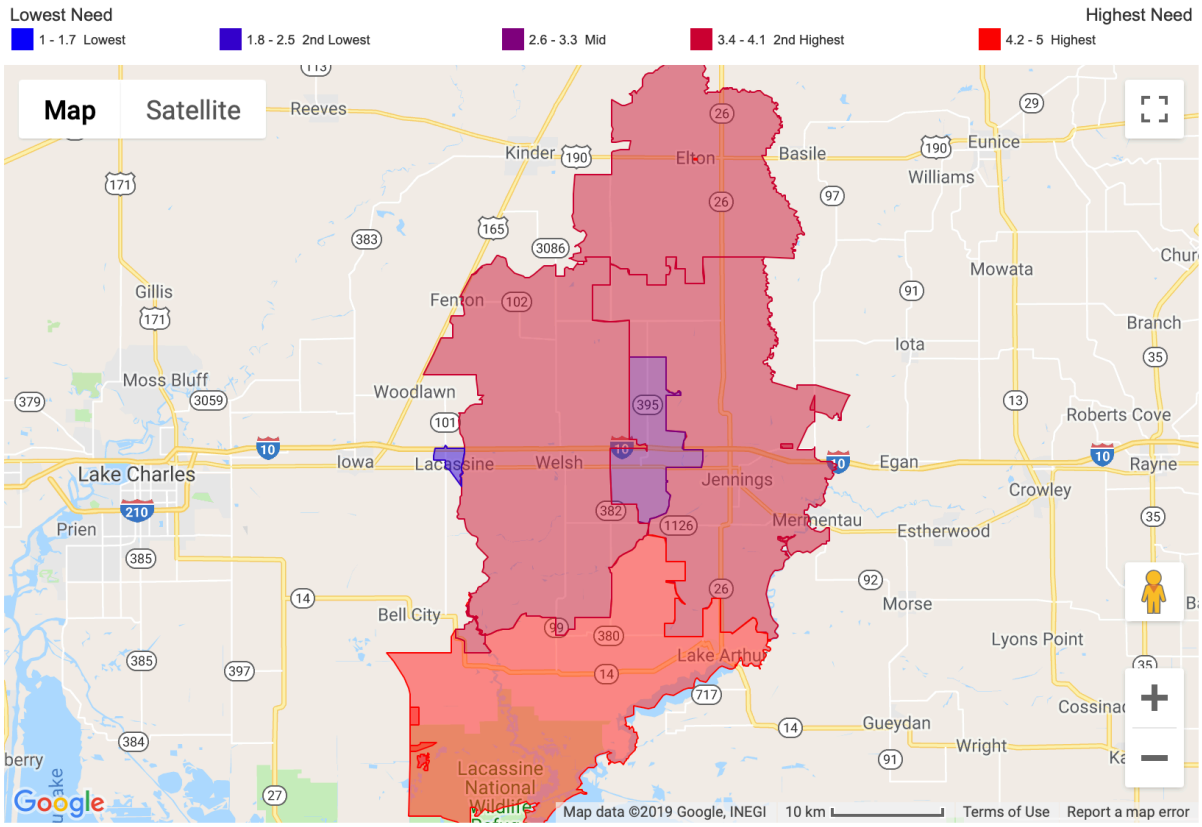
Mean(zipcode): 2.4 / Mean(person): 2.4 CNI Score Median: 2.4 CNI Score Mode: 2.4

Zip Code	CNI Score	Population	City	County	State
70631	2.6	970	Cameron	Cameron Parish	Louisiana
70632	2.4	366	Creole	Cameron Parish	Louisiana
70643	2.4	407	Grand Chenier	Cameron Parish	Louisiana
70645	2.2	1271	Hackberry	Cameron Parish	Louisiana

Note: The map above displays all of the ZIP codes in the parish. Four ZIP codes represent the primary service area for LCMH.

Jefferson Davis Parish

- ZIP code 70549 (Lake Arthur) has a CNI score of 4.2, indicating residents face a high need of healthcare services.
- ZIP code 70650 (Lacassine) has a CNI score of 1.8, which indicates that residents in this ZIP code face the lowest need of health care services when compared to the remaining ZIP codes in the parish.



Mean(zipcode): 3.5 / Mean(person): 4 CNI Score Median: 3.8 CNI Score Mode: 4

Zip Code	CNI Score	Population	City	County	State
70532	3.6	2776	Elton	Jefferson Davis Parish	Louisiana
70546	4	16026	Jennings	Jefferson Davis Parish	Louisiana
70549	4.2	3848	Lake Arthur	Jefferson Davis Parish	Louisiana
70581	3.2	917	Roanoke	Jefferson Davis Parish	Louisiana
70591	4	5368	Welsh	Jefferson Davis Parish	Louisiana
70650	1.8	6	Lacassine	Jefferson Davis Parish	Louisiana

Note: The map above displays all of the ZIP codes in the parish. Two ZIP codes represent the primary service area for LCMH.

County Health Rankings

The County Health Rankings were completed as a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute.

- Each parish receives a summary rank for its health outcomes, health factors, and also for the four different types of health factors: health behaviors, clinical care, social and economic factors, and the physical environment. Analyses can also drill down to see specific parish-level data (as well as state benchmarks) for the measures upon which the rankings are based. Parishes in each of the 50 states are ranked according to summaries of more than 30 health measures. Those having high ranks, e.g. 1 or 2, are considered to be the "healthiest."
- Louisiana has 64 parishes. A score of 1 indicates the "healthiest" parish for the state in a specific measure. A score of 64 indicates the "unhealthiest" parish for the state in a specific measure. Below are the parishes that hold the lowest rankings, symbolizing the unhealthiest of the study area, in various categories:
- Allen Parish:
    - No. 22 for Health Factors.
    - No. 52 for Clinical Care.
- Beauregard Parish:
    - No. 39 for Length of Life.
- Cameron Parish:
    - No. 29 for Physical Environment.
- Jefferson Davis Parish:
    - No. 37 for Health Outcomes.
    - No. 35 for Quality of Life.
    - No. 28 for Health Behaviors.
    - No. 19 for Social and Economic Factors.

Socioeconomic Factors

- Residents in Beauregard (17.3 percent) and Calcasieu (16.4 percent) have the highest percentage of uninsured population; these percentages are higher than the nation (14.2 percent).
    - In 2019, all of the study area parishes saw decreased percentages of uninsured.
- More residents in Jefferson Davis Parish (21.4 percent) live 100 percent below the federal poverty level when compared to the remaining parishes in 2016; this rate is higher than the state (19.6 percent) and the nation (15.6 percent). On the opposite end of the spectrum, Cameron Parish reports the lowest percentage at 8.3 percent.

    - Similar to the nation, four of the five parishes in the study area saw a slight decline in the percentage of population who live 100 percent below the federal poverty level for 2019. Cameron Parish, alone, saw a slight increase (from 8.3 percent in 2015 to 8.7 percent in 2019). There was no change in the overall state rate of 19.6 percent from 2015 to 2019. More residents in 2019 in Jefferson Davis Parish (19.6 percent) live 100 percent below the federal poverty level when compared to the remaining parishes.
- More residents in Jefferson Davis Parish (44.7 percent) and Allen Parish (44.6 percent) live 200 percent below the federal poverty level when compared to the remaining parishes; this rate is higher than the state (40.2 percent) and the nation (34.5 percent).
- In 2019, there are more residents in Allen Parish (9.2 percent) without a motor vehicle when compared to the remaining parishes. This percentage is higher than the state (8.5 percent) and the nation (8.8 percent).
    - Beauregard Parish is the only parish that saw an increase in the percentage of households with no motor vehicle between the 2016 and 2019 CHNA studies (5.5 percent vs. 6.6 percent).
- Residents in Calcasieu Parish (586.9) face high crime rates per 100,000 population when compared to the remaining parishes; this rate is higher than the state (532.9) and the nation (395.5).
    - Jefferson Davis Parish saw the most dramatic decrease in violent crime per 100,000 population between the study years (315.5 in 2016; 214.8 in 2019). Beauregard and Cameron parishes reported a higher rate of violent crime in 2019 than was reported in 2016.

Food Security

- In 2016, residents in Allen Parish (14.8 percent) and Calcasieu Parish (14.5 percent) have the highest percentage of food insecurity when compared to the remaining parishes. Cameron Parish reports the lowest (8.1 percent).
- In 2019, Beauregard Parish (56.3 percent) has the highest percentage of residents with low food access when compared to the rest of the parishes; this rate is higher than the state (26.8 percent) and the nation (22.4 percent).
    - In 2016, Beauregard Parish (62.4 percent) has the highest percentage of residents with low food access (food deserts) when compared to the rest of the parishes; this rate is higher than the state (28.6 percent) and the nation (23.6 percent).
    - While most of the study area saw a decline in the percentage of residents with low food access between the study years, Cameron Parish increased from 24.6 percent in 2016 to 25.5 percent in 2019. Allen and Beauregard parishes saw the most dramatic declines (9.3 and 6.1 points, respectively) when compared to the remaining parishes, the state, and the nation.

    - More residents in Jefferson Davis Parish (18.6 percent) receive SNAP benefits when compared to the remaining parishes, the state (16.4 percent), and the nation (13.0 percent).
    - In 2019, 18.0 percent of Jefferson Davis Parish residents receive SNAP benefits; this rate is higher than the remaining parishes, the state (18.9 percent), and the nation (13.9 percent).
    - SNAP benefit recipients have increased across most of the study area, the state, and the nation between the 2016 and 2019 study years. Cameron Parish is the only parish to report a decrease in the percentage of SNAP benefit recipients, from 9.7 percent in 2016 to 5.7 percent in 2019.
- In 2019, Cameron Parish is home to a significantly higher number of grocery stores (43.9 per 100,000 population) when compared to the remaining parishes, the state (20.9), and the nation (21.2).
- Beauregard (5.61 vs. 8.4), Calcasieu (14.5 bs. 16.1), and Jefferson Davis (19.0 vs 22.2) parishes reported increases in grocery stores per 100,000 population between the 2016 and 2019 CHNA study years. The overall state rate for Louisiana decreased between 2016 and 2019 (21.9 vs. 20.9).

Obesity

- Residents in Beauregard (35.4 percent vs. 36.1 percent), Calcasieu (33.1 percent vs. 34.5 percent), Cameron (34.2 percent vs. 35.6 percent), and Jefferson Davis (35.7 percent vs. 39.2 percent) parishes show increase rates of obese residents between 2016 and 2019.
- Allen is the only parish in the study area to report a decrease in its obese population, from 34.5 percent in 2016 to 33.8 percent in 2019. Note: the data reported reflect information collected within years 2008-2012.
- There were more obese residents in Jefferson Davis Parish (39.2 percent) in 2019 compared to the remaining parishes, the state (35.1 percent), and the nation (28.3 percent).

Physical Activity and Nutrition

- In 2019, there is more access to recreational and fitness facilities in Jefferson Davis Parish (9.5 per 100,000 population) when compared to the remaining parishes; this rate is the same as the state (9.5) and lower than the nation (11.0).
- All of the parishes in the study area report less recreation and fitness facility access per 100,000 population than the nation (11.0) in 2019.
    - In 2016, there were more access to recreational and fitness facilities in Jefferson Davis Parish (12.7 per 100,00 population) when compared to the remaining parishes; this rate is higher than the state (9.6) and the nation (9.7).

- In 2019, adults residents in Allen (29.9 percent), Calcasieu (28.7 percent), and Jefferson Davis (29.0 percent) aged 20 and older reports no leisure time for activity, based on the question: "During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?"
- In 2019, Cameron Parish reports the highest percentage of adults 20 and older with no leisure time for physical activity at 30.8 percent; this is higher than state (27.9 percent) and national (21.6 percent) rates. Cameron Parish is also the only parish to report an increase in this rate from the 2016 CHNA study year.
    - In 2016, Adult residents in Allen (33.3 percent), Calcasieu (32.1 percent), and Jefferson Davis (33.0 percent) aged 20 and older report no physical activity; these percentages are higher than the state (29.8 percent) and the nation (22.6 percent).

Housing

- In 2019, Calcasieu Parish shows a rate of 24.3 percent where housing costs exceed 30 percent of the total household income and is highest in the study area. The housing cost burden decreased in Allen, Beauregard, Calcasieu, and Cameron parishes. Percentages in the state (28. percent) and the nation (32.0 percent) are higher when compared to all five parishes. This indicator provides information on the cost of monthly housing expenses for owners and renters. The information offers a measure of housing affordability and excessive shelter costs. The data serves to aid in the development of housing programs to meet the needs of people at different economic levels.
    - Residents in Calcasieu Parish (25.2 percent) report housing cost burden where costs exceed 30 percent of the total household income. Percentages in the state (29.2 percent) and the nation (34.9 percent) are higher when compared to the remaining parishes in 2016.
    - In 2016, there were more available assisted housing units in Calcasieu Parish (600.8 per 10,000 population) when compared to the remaining parishes; this rate is higher than the state (488.8) and the nation (377.9).
- In 2019, Cameron Parish (13.5 percent) reports the lowest percentage of residents who live in substandard housing; Jefferson Davis Parish (26.1 percent) reports the highest in the study area. All of the parishes in the study area report rates lower than the state (29.2 percent) and the nation (33.0 percent).
    - Cameron Parish (16.5 percent) reports the lowest percentages of residents who live in substandard housing; Calcasieu Parish residents (25.9 percent) report the highest in the study area in 2016.
- Allen (23.2 vs. 23.7) and Jefferson Davis (24.5 vs. 26.1) parishes are the only areas to report an increase in substandard housing between the 2016 and 2019 CHNA studies.

Access to Care/Clinical Care

- In 2019, there is considerably more accessibility to dentists in Calcasieu Parish (53.8 per 100,000 population) when compared to the remaining parishes. This rate is higher than the state (51.8). Beauregard Parish had the least at 19.2. No data was available for Cameron Parish.
    - In 2016, Beauregard Parish (19.4) reports the lowest number of accessible dentists. There is more accessibility to dentists in Calcasieu Parish (52.7) when compared to the remaining parishes; this rate in higher than the state (50.6).
- In 2016, slightly more than half of residents in Beauregard Parish (51.2 percent) report Medicare enrollees ages 67-69 who received one or more mammograms in the past two years; this rate is lower than the state (58.9 percent) and the nation (63.0 percent).
- In 2019, similar to the state (62.0 percent) and the nation (63.2 percent), Allen and Beauregard parishes report increased percentages of Medicare enrollees ages 67-69 who received one or more mammograms in the past two years.
    - In 2016, more than three-fourths of female residents in Calcasieu Parish (76.0 percent) aged 18 and older had a Pap test in the past three years; this rate is slightly lower than the state (78.1 percent) and nation (78.5 percent).
    - In 2016, Beauregard Parish residents (54.2 percent) reports the highest number of residents aged 50 and older who had a colonoscopy when compared to the state (54.5 percent) and the nation (61.3 percent).
- In 2019, across the study area, the state, and the nation the ambulatory care sensitive condition discharge rate per 1,000 Medicare enrollees' rates are on the decline from data reported during the 2016 CHNA study.
- In 2016, slightly fewer than three-fourths of residents in Jefferson Davis Parish (72.7 percent) aged 65 and older received a flu shot; this rate is higher than the state (68.5 percent) and the nation (67.5 percent).
- More than one-quarter of residents in Beauregard Parish (28.4 percent) report that they are not taking medication for their high blood pressure; this is higher than the state (16.3 percent) and the nation (21.7 percent) in 2016.
- In 2016, There are more residents in Beauregard Parish (44.7 percent) and Allen Parish (39.4 percent) aged 18 and older who have not visited a dentist, dental hygienist, or dental clinic in the past year; these percentages are higher than the state (34.3 percent) and the nation (30.2 percent).
- Calcasieu Parish residents have access to more physicians per 100,000 population between 2016 and 2019 (62.2 vs. 76.1) when compared to the remaining parishes.
- In 2019, Calcasieu Parish residents have access to more physicians per 100,000 population (76.1) compared to the remaining parishes in 2014; this is slightly less than the state (78.7). Calcasieu is the only parish to report an increase in access to primary care between the 2016 and 2019 studies. Allen

Parish (35.0) reports the lowest rate of physicians per 100,000 population. (Data for Cameron Parish was unavailable.)

Health Outcomes

- In 2019, all parishes (with the exception of Allen Parish), over 80 percent of Medicare patients had a Hemoglobin A1c test within the past year; which is consistent with the state (83.9 percent) and the nation (85.7 percent). This indicator is relevant because diabetes is a prevalent problem in the U.S.; it may indicate an unhealthy lifestyle and puts individuals at risk for further health issues.
    - Allen Parish is the only area that reports an increased percentage of adults 20 and older with diabetes from the 2016 study. The national rate also increased from 9.1 percent in 2016 to 9.3 percent in 2019.
- In 2016, residents in Allen (15.6 percent) and Jefferson Davis (15.7 percent) parishes report higher percentages of adults aged 18 and older who have asthma; these percentages are higher than the state (11.7 percent) and nation (13.4 percent).
- There are more residents in Calcasieu Parish aged 18 and older who have coronary heart disease or angina; this rate is higher than the remaining parishes in the study area, state (4.9 percent), and the nation (4.4 percent) in 2016.
- In 2019, Beauregard Parish (67.3 percent) reports the highest percentage of the Medicare population with high blood pressure, higher than the state (62.7 percent) and the nation (55.0 percent).
- In 2016, more than one-third of residents 18 and older in Allen Parish (42.3 percent) have high blood pressure or hypertension; this rate is higher than the state (34.1 percent) and the nation (28.2 percent).
- More than half of residents in Allen Parish (56.3 percent) aged 18 and older have high blood cholesterol; this rate is higher than the remaining parishes, the state (38.7 percent), and the nation (38.5 percent) in 2016.
- In 2016, Jefferson Davis (131.2 per 100,000 population) and Cameron (124.7) have the highest rates of women who have breast cancer, higher than Allen (102.5), Beauregard (118.0), Calcasieu (119.8), the state (121.9), and the nation (123.0).
- In 2019, Jefferson Davis Parish reports the highest rate of residents with colon and rectum cancer (55.5), higher than both the state (46.5), the nation (39.2), and increased from the prior 2016 CHNA study (54.6). Of the two parishes (Jefferson Davis and Calcasieu) reporting increased rates from the prior 2016 CHNA study, Jefferson Davis increased the most.
    - In 2016, Allen Parish reports the highest rate of residents with colon and rectum cancer (56.6 per 100,000 per population). Cameron (54.3) and Jefferson Davis (54.6) also report high rates.

- In 2019, Jefferson Davis Parish reports the highest rate of residents with lung cancer (82.5 per 100,000 per population) compared to the remaining parishes in the study area. This rate is also higher than the state (68.8) and the nation (60.2).
- In 2019, Cameron Parish reports the lowest rate of residents with lung cancer at 65.4 per 100,000 population. Although this rate is lowest for the study area, Cameron Parish is also the only parish to report an increased rate of lung cancer incidence from the 2016 CHNA study to this year's study.
    - In 2016, residents in Jefferson Davis Parish (87.4 per 100,000 population) report high rates of lung cancer; higher than the state (73.0) and the nation (63.7).
- In 2019, Cameron Parish (139.7 per 100,000 population) has more males with prostate cancer compared to the remaining parishes, the state (161.1), and the nation (131.7). Calcasieu Parish follows closely with 127.1 per 100,000 population.
    - In 2016, residents in Calcasieu (157.6 per 100,000 population) and Cameron (163.0) have more males with prostate cancer compared to the remaining parishes and the nation (131.7).
- In 2016, residents in Jefferson Davis Parish (209.5 per 100,000 population) have a higher death rate due to malignant neoplasm (cancer) when compared to the remaining parishes, the state (193.7), and the nation (168.9).
- In 2019, Allen (31.5 percent vs. 31.4 percent), Beauregard (36.1 vs. 33.3 percent), and Calcasieu (28.9 percent vs. 28.1 perfect) Medicare parish residents reported a decrease in adults with heart disease between the study years.
    - In 2016, there are fewer Medicare residents in Calcasieu Parish who have heart disease (28.9 percent) when compared to the rest of the parishes. Beauregard residents have the highest percentages at 36.1 percent with heart disease.

Sexually Transmitted Diseases (STD)

- In 2019, residents in Cameron Parish (190.7 per 100,000 population) have fewer incidences of chlamydia when compared to the remaining parishes.
- Jefferson Davis residents have higher rates of residents with chlamydia at 496.2 per 100,000 population when compared to the remaining parishes in 2019.
    - In 2016, more than half of residents in Jefferson Davis Parish (63.3 percent) aged 18-70 have never been screened for HIV/AIDS, higher than the state (56.2 percent) and the nation (62.8 percent).
    - Calcasieu Parish residents have higher rates of chlamydia at 416.3 per 100,000 population when compared to the rest of the parishes in 2016.
- In 2019, residents in Calcasieu Parish (169.0) have higher incidences of gonorrhea per 100,000 population when compared to the remaining parishes; this rate is higher than the nation (145.8).

    - Residents in Jefferson Parish (137.4) have higher incidences of gonorrhea per 100,000 population when compared to the remaining parishes; this rate is higher than the nation (110.7) in 2016.

- In 2019, HIV incidence rates are highest in Allen Parish (1,028.3); higher than the state (504.7) and nation (362.3). Between the study years, the HIV incidence rate nearly doubled in Allen. When compared to the rest of the parishes in the study area, the HIV incidence rate in Allen Parish is 2.5 times higher than the next highest reporting parish (Calcasieu, 388.3).
    - In 2016, the HIV incidence rate in Allen Parish of 582.7 per 1000,000 population is higher than the state (502.3) and significantly higher than the nation (353.2).

Behavioral Health/Mental and Substance Abuse

- In 2016, slightly less than one-quarter of residents in Allen Parish (22.5 percent) lack social or emotional support when compared to the state (21.7 percent) and the nation (20.7 percent). This indicator is relevant because social and emotional support is critical for navigating the challenges of daily life, as well as for good mental health. Social and emotional support is also linked to educational achievement and economic stability.
- In 2019, the rate of mental health providers is highest in Calcasieu Parish at 195.9 per 100,000 population when compared to the remaining parishes; Jefferson Davis follows closely at 194.2.
    - Comparing the rate of mental health providers between the study years, Calcasieu Parish has 58.5 per 100,000 population (the highest in 2016) while Beauregard has 16.0 per population in 2016. This rate is more than four times lower than the state (77.6) and more than eight times lower than the nation (134.1).
- In 2019, Beauregard (18.8 percent), Calcasieu (18.3 percent), and Jefferson Davis (21.5 percent) parishes have more Medicare residents with depression when compared to the remaining parishes in the study area, the state (17.2 percent), and the nation (16.7 percent).
- Calcasieu Parish (18.6 per 100,000 population) has more residents who committed suicide in 2019 when compared to the remaining parishes.
    - In 2016, Allen Parish has higher rates of residents who commit suicide (17.0 per 100,000 population) when compared to Calcasieu Parish (15.2), the state (12.1), and the nation (12.3).
- Residents in Jefferson Davis Parish (16.1 percent) aged 18 and older are heavy alcohol consumers; this is higher than the state (15.9 percent) and only slightly lower than the nation (16.9 percent) in 2016.
- In 2016, Slightly less than one-third of residents 18 and older in Cameron Parish (30.8 percent) smoke cigarettes some days or every day. This rate is higher than all of the parishes in the study area, the state (21.9 percent), and the nation (18.1 percent).

Children's Health

- In 2016, the infant mortality death rate in Jefferson Davis Parish is 10.7 per 1,000 population; much higher than Cameron Parish (2.5) and Allen Parish (2.2). Jefferson Davis Parish rates are also higher than the state (8.9) and the nation (6.5).
- Allen Parish shows the highest rate for teen births for those aged 15 to 19 years old at 69.5 per 1,000 population when compared to the remaining parishes. This rate is also higher than the state (50.2) and the nation (36.6) in 2016.
- In 2016, one-third of residents aged 18 and older in Beauregard Parish (33.0 percent) faced food insecurity within the past year and are ineligible for state or federal nutrition assistance; this rate is higher than the state (28.0 percent) and the nation (31.0 percent).
- In 2016, slightly more than one-quarter of children in Allen Parish (25.2 percent) face food insecurity when compared to the remaining parishes, the state (24.4 percent), and the nation (23.5 percent).
- In 2019, there are more children living 100 percent below the federal poverty level in Calcasieu Parish (24.3 percent) when compared to the remaining parishes; this rate is higher than the nation (20.3 percent).

America's Health Rankings

America's Health Rankings® is the longest-running annual assessment of the nation's health on a state-by-state basis. For the past 25 years, America's Health Rankings® has provided a holistic view of the health of the nation. America's Health Rankings® is the result of a partnership between United Health Foundation, American Public Health Association, and Partnership for Prevention™.

Louisiana's key findings/rankings, based on America's Health Rankings:

- 49th overall in terms of health rankings
- 47th for smoking
- 42nd for diabetes
- 46th in obesity
- 49th in chlamydia
- 50th in annual dental visits

Louisiana Top Strengths, based on America's Health Rankings:

- Small disparity in health status by educational attainment
- Low incidence of pertussis
- High Tdap immunization coverage among adolescents

Louisiana's Top Challenges, based on America's Health Rankings:

- High prevalence of smoking
- High percentage of children in poverty
- High prevalence of low birthweight

Louisiana Top Highlights, based on America's Health Rankings:

- In the past five years, the percentage of uninsured decreased 45 percent from 20.3 percent to 11.1 percent of the population.
- In the past three years, drug deaths increased 37 percent from 12.9 to 17.7 deaths per 100,000 population.
- In the past four years, premature death increased 2 percent from 9,806 to 10,003 years lost before age 75 per 100,000 population.
    - In the past five years, preventable hospitalizations decreased 29 percent from 92.1 to 65.8 discharges per 1,000 Medicare enrollees.
    - In the past 10 years, air pollution decreased 36 percent from 12.2 to 7.8 micrograms of fine particles per cubic meter.

Hand-Distributed Surveys

Tripp Umbach employed a hand-distribution methodology to disseminate surveys to individuals within the community. A hand survey was utilized to collect input, in particular, from underserved populations. The hand survey was designed to capture and identify the health risk factors and health needs of those within the study area. The hand survey collection process was implemented during April and July 2019.

Tripp Umbach worked with community-based organizations to collect and distribute the surveys to end-users in the underserved populations. Tripp Umbach's engagement of local community organizations was vital to the survey distribution process.

In total, 700 surveys were collected and used for analysis in 2019 compared to 175 in 2016. The information below represented key survey findings collected from the hand-distributed survey.

Methodology:

- A hand-distributed survey methodology was employed to collect input from populations in communities surrounding Lake Charles Memorial Health System to identify health risk factors and health needs in the community.
- Working through community-based organizations and FQHCs/clinics, the hand surveys were collected from residents within the community.
- Community-based organizations encouraged participants to fill out the survey upon entry to their facility, while waiting in the lobby. Engagement of local community organizations was vital

in the distribution process. The information collected from the hand surveys is representative of residents who use and obtain services from community-based organizations.

  - Tripp Umbach provided assistance to community organizations in the distribution of the hand survey, as requested.

- Hard copies of the hand survey were mailed to community-based organizations and returned to Tripp Umbach for input and analysis.

Overall Key Findings:

- A majority of survey respondents were/are female in 2016 and 2019 (73.5 percent and 70.7 percent); 26.5 percent were males in 2016 vs. 29.3 percent in 2019.
- Survey respondents reside in Calcasieu Parish 78.5 (2016) vs. 74.1 (2019) respectively).
- Black/African Americans who responded to the survey: 2016, 23.4 percent; 2019: 38.7 percent.
- White/Caucasians who responded to the survey: 2016, 70.3 percent; 2019: 47.3 percent.
- Household income under $24,999: 2016, 52.3 percent; 2019: 63.2 percent.
- Respondents without a high school degree: 2019, 29.3 percent.
- Respondents with a high school degree or GED: 2019, 27.5 percent.
- Respondents who are employed: 2016, 44.1 percent; 2019, 47.0 percent.
- Respondents with health insurance: 2016, 65.4 percent; 2019, 78.1 percent.
    - Respondents who did not have health insurance: 2016, 58.7; percent; 2019, 64.5 percent.
- Respondents who have a primary care doctor: 2016, 75.4 percent; 2019, 88.6 percent.
- The top three reasons why survey respondents did not have a primary care physician in 2016: 28.2 percent can't afford one, 11.3 percent do not need one, 21.1 can't find one.
- The top reasons why survey respondents did not have a primary care physician in 2019: can't afford one (54.1 percent), do not need one (18.9 percent), can't find one (16.2 percent).
- Doctor's office is the primary place where respondents seek care: 2016, 51.2 percent; 2019, 50.1 percent.
- Respondents who saw their doctor/primary care provider within the past year: 2016, 79.3 percent; 2019, 83.7 percent.
- Respondents who engage in physical activity to stay healthy: 2016, 73.1 percent; 2019, 74.2 percent.
- Respondents who are able to get fresh healthy foods: 2016, 91.2 percent; 2019, 90.6 percent.
- Females respondents who obtained a Pap smear: 2016, 44.1 percent; 2019, 61.1 percent.

- Female respondents who obtained a mammogram in the past year: 2016, 15.9 percent; 2019, 51.9 percent.
- Respondents who had a colonoscopy screening after 50 years of age: 2019: 50.5 percent.
- Respondents who have high blood pressure: 2016, 51.5 percent; 2019, 61.2 percent.
- Respondents who overweight/obese: 2016, 37.9 percent; 2019, 48.4 percent.
- Respondents who have heart problems: 2016, 22.1 percent; 2019, 21.4 percent.
- Respondents who have diabetes: 2016, 17.5 percent; 2019, 25.3 percent.
- Respondents who currently smoke: 2016, 15.5 percent; 2019, 27.3 percent.
- Respondents who have physical limitations that affect their daily activities: 2016, 15.5 percent; 2019, 27.3 percent.
- Respondents who have mental limitations that affect their daily activities: 2016, 12.1 percent; 2019, 11.2 percent.
- Respondents who have emotional limitations that affect their daily activities: 2016, 9.9 percent; 2019, 4.1 percent.
- Respondents who have spiritual limitations that affect their daily activities: 2016, 7.2 percent; 2019, 10.6 percent.
- Respondents who find out about information in their community via TV: 2016, 25.1 percent; 2019, 18.3 percent.
- The five biggest five health concerns in the community (2016): cancer: 13.3 percent, drug/alcohol use: 10.8 percent, diabetes: 9.0 percent, mental health: 8.3 percent, obesity; 6.7 percent.
- The five biggest five health concerns in the community (2019): cancer: 10.5 percent, drug/alcohol use: 10.0 percent, diabetes: 8.9 percent, mental health: 5.7 percent, obesity; 5.2 percent.
- Main form of transportation for respondents: 2016, 81.5 percent; 2019, 72.5 percent.
- Respondents who quit a job due to lack of transportation: 2016, 6.5 percent; 2019, 10.6 percent.
- Respondents who missed a health appointment due to lack of transportation: 2016, 14.3 percent; 2019, 22.7 percent.

Mental Health Overall Key Findings:

- Respondents who told their doctor/professional they have a mental health problem: 2016, 17.6 percent; 2019, 27.4 percent.
- Respondents received services for their mental health problem: 2016, 17.4 percent; 2019, 18.3 percent.

- Respondents who received mental health services from a mental health counselor: 2016, 35.3 percent; 2019, 25.5 percent.
- Respondents who received mental health services from a hospital/emergency room: 2016, 23.5 percent; 2019, 12.7 percent.
- Respondents who received mental health services from a primary care doctor/health care professional: 2016, 23.5 percent; 2019, 33.3 percent.
- Respondents who need mental health services but did not receive services: 2016, 8.9 percent; 2019, 7.2 percent.
- Reasons why respondents did not receive service or treatment (2019): insurance does not cover: 15.8 percent, don't know where to go: 15.8 percent, too long to get an appointment: 15.8 percent.

Cancer Overall Key Findings:

- Cancer in family 2016: father: 39.1 percent, mother: 29.9 percent, brother:1 0.3, sister: 19.5 percent.
- Cancer in family 2019: self: 10.9 percent, father: 1.1 percent, mother: 20.2 percent, brother: 10.6 percent, sister: 11.6 percent.
- Top three types of cancer 2016: breast: 36.4 percent, melanoma: 15.2 percent, other: 12.1 percent.
- Respondents who were able to see a cancer doctor: 2016, 75.5 percent; 2019, 77.0 percent.
- Financial difficulties that keep respondents from getting all of their cancer treatments: 2016, 32.4 percent; 2019, 31.0 percent.
- Top Barriers/struggles that respondents face when talking to their doctor (2016): medical terms that are unfamiliar to me: 27.7 percent, doctor/nurse talk down to me: 16.9 percent, pressure to make a serious medical decision without adequate knowledge or time: 15.4 percent.
- Top Barriers/struggles that respondents face when trying to talk to their doctor (2019): medical terms that are unfamiliar to me: 30.0 percent, pressure to make a serious medical decision without adequate knowledge or time: 28.4 percent, language barriers: 13.2 percent.
- Problems respondents faced while being treated by your physician or as a patient in the hospital (2016): lost orders for testing or results of testing: 42.5 percent, scheduling difficulties: 21.8 percent, communication between you and primary physician: 17.2 percent.
- Problems respondents faced while being treated by your physician or as a patient in the hospital (2019): scheduling difficulties 28.5 percent, communication with primary physician: 21.5 percent, communication with other physicians: 15.8 percent.

- Barriers respondents faced when seeking health care services (2016): afraid to seek services: 42.5 percent, bad neighborhood where services are located: 21.8 percent, don't know where to go for services: 17.2 percent.
- Barriers respondents faced when seeking health care services (2019): high out-of-pocket cost: 25.3 percent, too long to get an appointment: 22.8 percent, lack of insurance: 17.8 percent.
- Problems respondents/family face when health care or other supportive services are needed (2016): no health insurance: 25.3 percent, lack of information about available resources: 23.2 percent, dissatisfaction with treatment: 10.5 percent.
- Problems respondents/family face when health care or other supportive services are needed (2019): no health insurance: 21.9 percent, lack of information about available resources: 19.3 percent, delays in getting needed care: 15.2 percent.

Hospital Forum

On August 7, 2019, Tripp Umbach facilitated an internal forum with 14 attendees who represented the hospital and their partnering clinics. The participants consisted of their internal administrative staff and team. The purpose of the forum was to present the CHNA findings, which included existing data, in-depth community stakeholder interview results, and hand-distributed survey findings, and to obtain input regarding the needs and concerns of the community overall. The group discussed the data, shared their visions and plans for community health improvement in their communities, and identified and prioritized the top community health needs in their region. With input received from forum participants, Lake Charles Memorial Health System prioritized and identified top priority areas. They included (in order): behavioral health, health behaviors, and health outcomes. Each of the prioritized areas has subcategories, which further illustrate the identified need.

1. Behavioral Health
    - Access to care
    - ER Navigation
2. Health Behaviors
    - Access to care
    - Tobacco Use
    - Health literacy
3. Health Outcomes
    - Access to care

- Specialist/Certified Programs
- Tobacco Use
- Diabetes
- High blood pressure
- Sexually transmitted diseases

CHNA Needs to be addressed by Lake Charles Cancer Center:

1. Cancer
    - Access to care
    - Health outcomes
    - Behavioral health
    - Financial burden
    - Transportation issues

LCMH will not be addressing employment and the need for employment under health behaviors directly. While the healthcare institution employs thousands of employees and has vast partnerships with regional businesses, the issues surrounding employment must involve government bodies, small and large businesses, educational institutions, philanthropic groups, and public and private sectors polling resources together to collectively address the problem. The issues surrounding employment cannot be addressed by one organization alone. Rather, employment needs to begin with improved coordination between employers, labor, and educators to ensure job seekers are prepared, connecting residents to opportunities, and providing training when and where needed.

Health outcomes were specifically identified as a need LC Cancer Center would address. However, at the community forum, it was originally identified that health behaviors were a need. After further review of primary and secondary data and robust discussions, the working group decided that health outcomes were a more appropriate need as it is a result of poor unhealthy health behaviors. The working group of LC Cancer Center will address and tackle the needs of their community through an implementation strategy plan working closely with the health system and their community partners.

Provider Resource Inventory

An inventory of programs and services specifically related to the key prioritized needs was cataloged by Tripp Umbach. The inventory highlights programs and services within the five-parish focus area. The inventory identifies the range of organizations and agencies in the community that are serving the

various target populations within each of the prioritized needs. It provides program descriptions, contact information, and the potential for coordinating community activities by creating linkages among agencies. The resource inventory was provided as a separate document due to its interactive nature and is available on Lake Charles Memorial Hospital's website.

Final CHNA Report

A final report was developed that summarized key findings from the assessment process including the final prioritized community needs. Top community health needs were identified by analyzing secondary data, primary data collected from key stakeholder interviews, hand-distributed surveys, and the community forum. Tripp Umbach provided support to the prioritized needs with secondary data (where available), consensus with community stakeholders results, and hand-distributed surveys.

Implementation Strategy and Planning

With the completion of the community health needs assessment, an implementation phase will begin with the onset of work sessions facilitated by Tripp Umbach. The work sessions will maximize system cohesion and synergies, during which leaders from Lake Charles Memorial Health System will be guided through a series of identified processes. The strategy planning process will ultimately result in the development of an implementation plan that will meet system and IRS standards.

Appendix D : Community Stakeholder Interviewees

Tripp Umbach completed 16 interviews with community stakeholders throughout the region to gain a deeper understanding of community health needs from organizations, agencies, and government officials that have a deep understanding from their day-to-day interactions with populations in greatest need. Interviews provide information about the community's health status, risk factors, service utilizations and community resource needs, as well as gaps and service suggestions.

Listed below in alphabetical order by last name are the community stakeholders who participated in the community health need assessment for Lake Charles Memorial Health System. (See Table 11).

Table 11: Community Stakeholders

	Name	Organization
1.	Emily Ashworth, R.N.	City of Lake Charles
2.	Michele Bryant	American Cancer Society Inc. South Region
3.	Shawn Caldwell	Lake Charles Police Department
4.	Lacey Cavanaugh, MD	Lake Charles Urgent Care
5.	Lolita Ceaser	National Alliance on Mental Health of SWLA
6.	Honorable Lilynn Cutrer	Family & Juvenile Court
7.	Denise Durel	United Way SWLA
8.	Lenore Hayes	Lake Charles Memorial Cancer Center
9.	Mayor Nic Hunter	City of Lake Charles
10.	Ronnie Johns	Louisiana State Senate District 27
11.	John O'Donnell	Southwest Louisiana Area Health Education Center
12.	Patricia Prudhomme	American Heart Association
13.	Mohammed Sarwar, MD	Moss Memorial Health Clinic
14.	Ramie Thibodeaux	McNeese State University's Counseling Center and Health Services
15.	Susan Riehn	Families Helping Families
16.	Kayla Rigney	Calcasieu Community Clinic

Appendix E : Community Organizations and Partners

As a leading healthcare provider, Lake Charles Memorial Health System is dedicated to understanding community needs, offering enhancing quality programs to address those needs, and promoting population wellness.

The primary data collected in the CHNA provided invaluable input and ongoing dedication to assisting Lake Charles Memorial in identifying community health priorities and building a foundation upon which to develop strategies that will address the needs of residents in Southwest Louisiana.

Below is a listing of community organizations that assisted Lake Charles Memorial Health System with the primary data collection. In particular, the organizations listed below assisted with the collection and distribution of hand-surveys for the 2019 CHNA. (See Table 12).

Table 12: Community Organizations

	Community Organizations
1.	Beauregard Christian Women's Job Corps
2.	Calcasieu Community Clinic
3.	Calcasieu Parish Police Jury; Human Services Department
4.	Care Help of Sulphur
5.	Community Pregnancy Center
6.	Jennings Housing Authority
7.	Lake Charles Memorial Cancer Center
8.	Merryville Housing Authority
9.	Moss Memorial Health Clinic
11.	Southwest Louisiana AIDS Council
12.	Southwest Louisiana Center for Health Services
13.	Volunteers of America

Appendix F: Working Group Members

The CHNA was overseen by a committee of representatives who worked diligently during the process. Members of the Working Group are listed in alphabetical order by last name. (See Table 13).

Table 13: Working Group Members (Listed aphabetically by last name)

	Name
1.	Danny Aguillard
2.	Ranelda Benoit
3.	Nolia Bernard
4.	JoAnn Brooks
5.	Karla David
6.	Kathy Derouen
7.	Jessica Duhon
8.	Fran Freedlund
9.	Pansy Gabbard
10.	Melissa Harrelson
11.	Lenore Hayes
12.	Missy Kelly
13.	Heather Labauve
14.	Sally McPherson
15.	Stuart Weatherford
	Tripp Umbach
16.	Ha T. Pham

Appendix G : Tripp Umbach

Consultants

Lake Charles Memorial Health System contracted with Tripp Umbach, a private healthcare consulting firm with offices throughout the United States, to complete a community health needs assessment (CHNA). Tripp Umbach has worked with more than 300 communities in all 50 states. In fact, more than one in five Americans lives in a community where our firm has worked.

From community needs assessment protocols to fulfilling the new Patient Protection and Affordable Care Act (PPACA) IRS 990 requirements, Tripp Umbach has turned needs assessments into practical action plans with sound implementation strategies, evaluation processes, and funding recommendations for hundreds of communities. Tripp Umbach has conducted more than 400 community health needs assessments and has worked with more than 800 hospitals.

Changes introduced as a result of the PPACA have placed an increased level of importance on population health and well-being and on collaborative efforts among providers, public health agencies, and community organizations to improve the overall health of communities.

Tripp Umbach

TrippUmbach
Research • Strategy • Impact

Community Health Needs Assessment Report 2016

Lake Charles Memorial Health System

Memorial Specialty Hospital formerly known as Extended Care of Southwest Lousiana

September 2016

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Executive Summary

A healthy community is a conceptual idea where healthy minds, bodies, and spirits, along with strong socioeconomic factors and a healthy environment, shape the lives of those who live in the area. There are health and social inequalities that exist in many communities and the Lake Charles community is no exception. Poor social determinants, poor physical environment, low educational levels, and accessibility issues to health care can readily affect the overall health status and health outcomes of a community.

Residents with little or no education face many challenges, including limited financial resources and limited employment opportunities. These struggles can lead to a lower quality of life and ultimately affect residents' health outcomes as well.

Residents living in a poor environment may feel societal pressures, which can trigger behavioral health problems and oftentimes lead to unhealthy behaviors such as smoking, increased alcohol use, and drug abuse. Addressing health and social disparities can help bridge and reduce socioeconomic gaps and provide support to residents with limited options. Accessibility to community resources and services are hurdles community residents with a low socioeconomic status traditionally face.

Key Community Needs

This CHNA report fulfills the requirements of the Internal Revenue Code 501(r)(3), a statute established within the Patient Protection and Affordable Care Act requiring that nonprofit hospitals conduct CHNAs every three years. The CHNA process undertaken by Lake Charles Memorial Health System, with project management and consultation by Tripp Umbach, included extensive input from persons who represent the broad interests of the community served by the hospital facility, including those with special knowledge of public health issues, data related to underserved, hard-to-reach, vulnerable populations and representatives of vulnerable populations served by the hospital. Tripp Umbach worked closely with members representing Lake Charles Memorial to oversee and accomplish the assessment and its goals.

A community planning forum was held at Lake Charles Memorial Hospital on June 7, 2016 as part of the CHNA process. The community planning forum involved 21 community leaders representing various community organizations, health and human services agencies, health institutions, and additional community agencies. Most importantly, forum participants provided critical feedback and prioritized key need areas for the CHNA. Forum participants were invited by Lake Charles Memorial's working group to attend the three hour event facilitated by Tripp Umbach.

Tripp Umbach presented the results from secondary data analysis, community leader interviews, hand-surveys, and health provider surveys, and used these findings to engage community participants in a group discussion. The robust primary and secondary data results were collected from the community health needs assessment (CHNA) process. Participants broke into three groups to determine and identify issues that were most prevalent and widespread in their community. Finally, the breakout groups were charged with creating ways to resolve their community-identified problems through concrete solutions in order to form a healthier community.

The following list identifies prioritized community health needs based upon input collected from forum participants. They are listed in order of mention.[1]

Prioritized 2016 Key Community Needs:

1. Access to Care (3)
2. Behavioral Health (3)
3. Health Behaviors (2)
4. Health Outcomes (2)
5. Transportation (2)

Cancer and housing were additional themes that were discussed at the community forum. Lake Charles Memorial Health System's Cancer Center will directly address community needs related to cancer and the issues surrounding the disease such as transportation.

Housing was also identified as a key community need and participants discussed the limited availability of housing options for community residents. This issue becomes even more challenging when considering the influx of migrant workers relocating to the region seeking employment opportunities.

The internal working group agreed that housing and transportation would not be addressed in the implementation strategy and planning phases within Lake Charles Memorial Health System due to the significant funding requirements and structural changes needed at the state and local level to address the housing and transportation infrastructure. However, transportation will be addressed within Lake Charles Memorial's Cancer Center. The transportation needs of cancer patients are still a large concern and the Cancer Center will continue to work to address and identify methods which will assist this patient population.

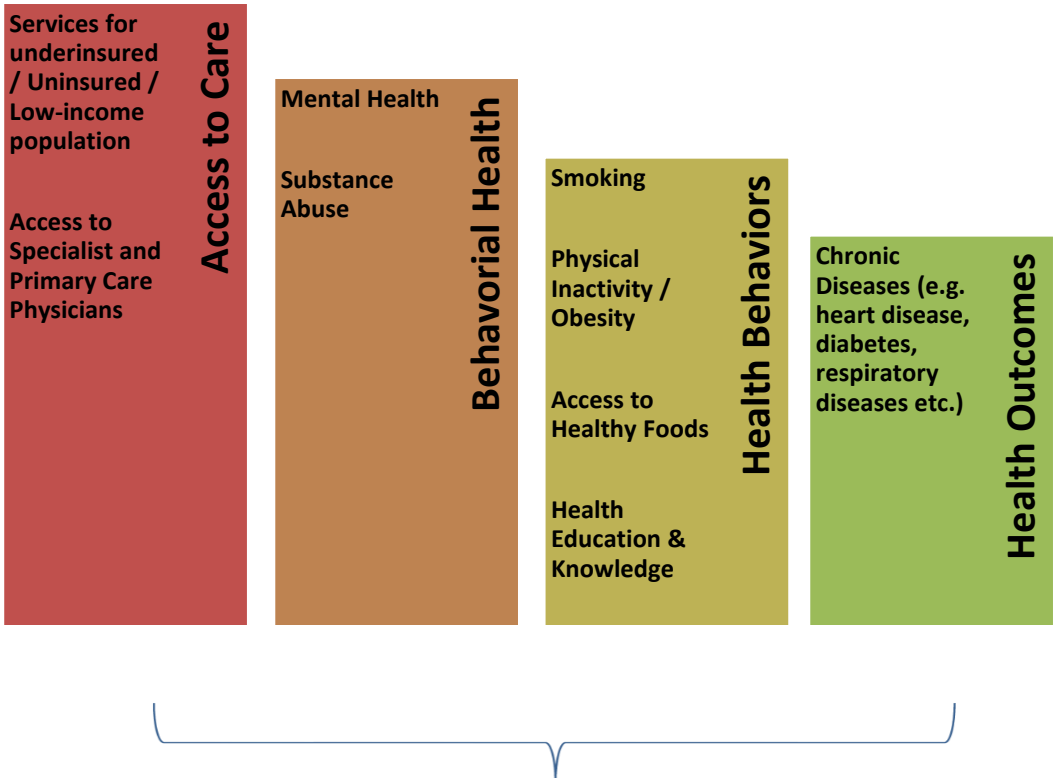
Lake Charles Memorial Health System is dedicated to serve as the primary health care delivery system for community residents in Southwest Louisiana. Lake Charles Memorial is dedicated to providing superior health care services and addressing the overall needs of the community. It is important to note that Tripp Umbach also reviewed and assessed the 2013 Lake Charles Memorial CHNA. Many of the CHNA priority findings from 2013 are in alignment with the findings from 2016.

Action Steps

Key priority areas were identified as a result of feedback and input from the internal working group, community leaders, and residents, along with extensive primary and secondary data research. Tripp Umbach categorized the key community needs into broader areas taking into account the previous 2013 CHNA results. The key need areas from the 2016 CHNA are depicted in the list chart below.

[1] The number in parenthesis indicates the number of groups which identified the listed community need (e.g. if each of the three breakout groups mentioned the need, a (3) is shown).

Graph 1: 2016 CHNA Key Community Needs



Prioritized Needs to be addressed by Lake Charles Memorial Health System

The implementation strategy planning phase will outline a plan of action for how Lake Charles Memorial Health System will address the top community health priorities over the next three years. Through measurable strategies and goals, efforts to ensure a positive impact on the health of the community will be tracked and reported.

Introduction

With the enactment of the Patient Protection and Affordable Care Act (PPACA) on March 23, 2010, tax-exempt hospitals require community health needs assessments (CHNAs) and implementation strategies, which are approaches and plans to actively improve the health of communities served by health systems. These strategies provide hospitals and health systems with the information they need to deliver community benefits that can be targeted to address the specific needs of their communities. Coordination and management strategies based upon the outcomes of a CHNA, and implementing strategies, can improve the impact of hospital community benefits.

To adhere to the requirements imposed by the IRS, tax-exempt hospitals and health systems must:

- Conduct a CHNA every three years.
- Adopt an implementation strategy to meet the community health needs identified through the assessment.
- Report how it is addressing the needs identified in the CHNA and a description of needs that are not being addressed, with the reasons why.

The Department of the Treasury and the IRS require a CHNA to include:

1. A description of the community served by the hospital facility and how the description was determined.
2. A description of the process and methods used to conduct the assessment.
    - A description of the sources and dates of the data and other information used in the assessment and the analytical methods applied to identify community health needs.
    - A description of information gaps that impact the hospital organization's ability to assess the health needs of the community served by the hospital facility.
    - Identification of organizations that collaborated with the hospital/health system and an explanation of their qualifications.
3. A description of how the hospital organizations took into account input from persons who represent the broad interests of the community served by the hospital. In addition, the report must identify any individual providing input that has special knowledge of or expertise in public health. The report must also identify any individual providing input who is a "leader" or "representative" of populations.
4. A prioritized description of all of the community health needs identified through the CHNA, as well as a description of the process and criteria used in prioritizing such health needs.
5. A description of the existing health care facilities and other resources within the community available to meet the community health needs identified through the CHNA.

6. A description of the needs identified that the hospital intends to address, the reasons those needs were selected, and the means by which the hospital will undertake to address the selected needs.[2]

For the 2016 CHNA, Lake Charles Memorial Health System collected and compiled primary and secondary data. Public and private organizations were engaged to assess the needs of the community. These organizations included: faith-based organizations, government agencies, educational systems and health and human services entities. The extensive primary data collection phase resulted in the contribution and involvement of hundreds of community stakeholders, health professionals, and community residents. The 2013 CHNA served as a baseline to understand the health and social needs of the community surrounding Lake Charles.

Data were collected from community residents, health professionals, as well as hospital employees as part of the primary data collection phase. Twenty-four online public commentary surveys were collected; twelve community stakeholder interviews were conducted with individuals who represented a) broad interests of the community, b) populations of need or c) persons with specialized knowledge in public health.

One hundred seventy-five paper surveys were collected to gather information from underserved and vulnerable residents. One hundred forty-two surveys were collected from health providers regarding the care and services they provide in their community.

Twenty-one community leaders and representatives attended a community health forum to assist in the prioritization of health needs, which helped outline implementation and strategy efforts. An interactive resource inventory was created to highlight available programs and services within Lake Charles Memorial's service area[3] focusing specifically on the identified health needs. The inventory identifies organizations and agencies in the community that are serving the various target populations within each of the priority needs.

Local, state and federal data were compiled to provide vital information and knowledge on wide-ranging health and social issues. Collecting and examining information helps explain and identify factors that influence the community's health.

Information and data collected in the secondary data process were gathered from reliable government and social agencies. The comprehensive collection of data provides information to understand the community's overall health. Socioeconomic information, health statistics, demographics, children's health, mental health issues, etc. were collected as part of the secondary data profile. This report is a summary of primary and secondary data collected throughout the CHNA.

[2] The outcomes from the CHNA will be addressed through an implementation strategy phase.

[3] The primary service area or the overall ZIP code study area referenced in the report refers to the 17 ZIP codes that define the community for Lake Charles Memorial Health System. The ZIP codes included are: 70601, 70633, 70605, 70668, 70607, 70634, 70663, 70630, 70611, 70546, 70615, 70657, 70647, 70591, 70669, 70648, and 70665.

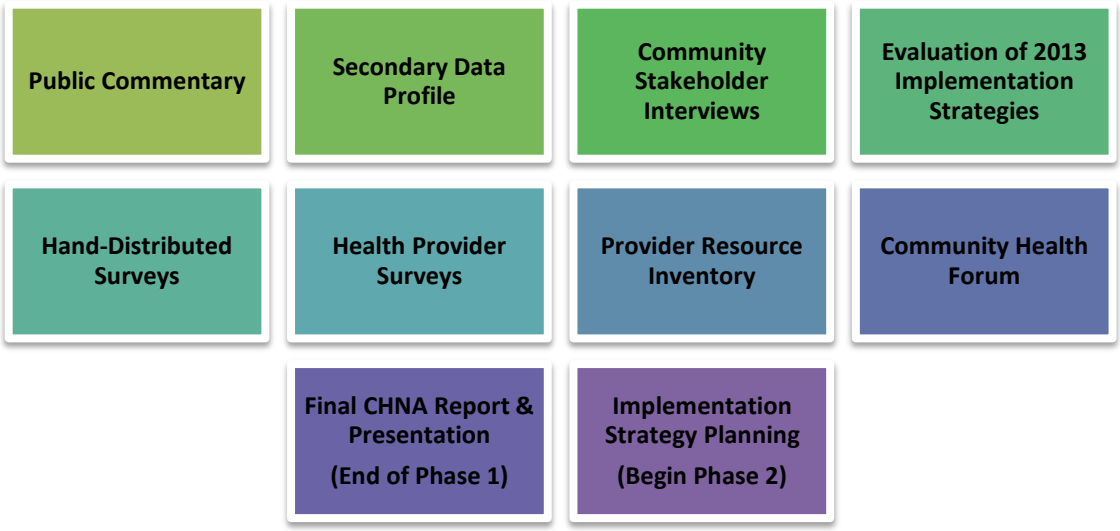
As part of the secondary data profile, data from Truven Health Analytics[4] were analyzed to gain a deeper understanding of community health care needs. The Community Needs Index (CNI), jointly developed by Dignity Health and Truven Health, assists in the process of gathering vital data on socioeconomic factors in the community. The tool is a strong indicator of a community's demand for various health care services.

Based on a wide array of demographic and economic statistics, the CNI provides a score for every populated ZIP code in the United States on a scale of 1.0 to 5.0. A score of 1.0 indicates a ZIP code with the least need, while a score of 5.0 represents a ZIP code with the most need. The CNI should be used as a part of the larger community needs assessment to assist in pinpointing specific areas that have greater needs compared to others. The information collected will be used to identify action items for inclusion in the Implementation Strategy.

Tripp Umbach was formally contracted by Lake Charles Memorial Health System to conduct their 2016 CHNA. Working collaboratively with an internal group comprised of senior leadership, Tripp Umbach produced this report.

The overall CHNA involved multiple steps that are depicted in the chart below. Additional information regarding each component of the project, and the results, can be found in the Appendices section of this report.

Graph 2: CHNA Process



[4] Truven Health Analytics, formerly known as Thomson Reuters, is a multinational health care company that delivers information, analytic tools, benchmarks, research and services to a variety of organizations and companies. Truven Health Analytics uses: Demographic data, poverty data (from The Nielsen Company) and insurance coverage estimates (from Truven Health Analytics) to provide Community Needs Index (CNI) scores at the ZIP code level. Additional information on Truven Health Analytics can be found in the Appendices.

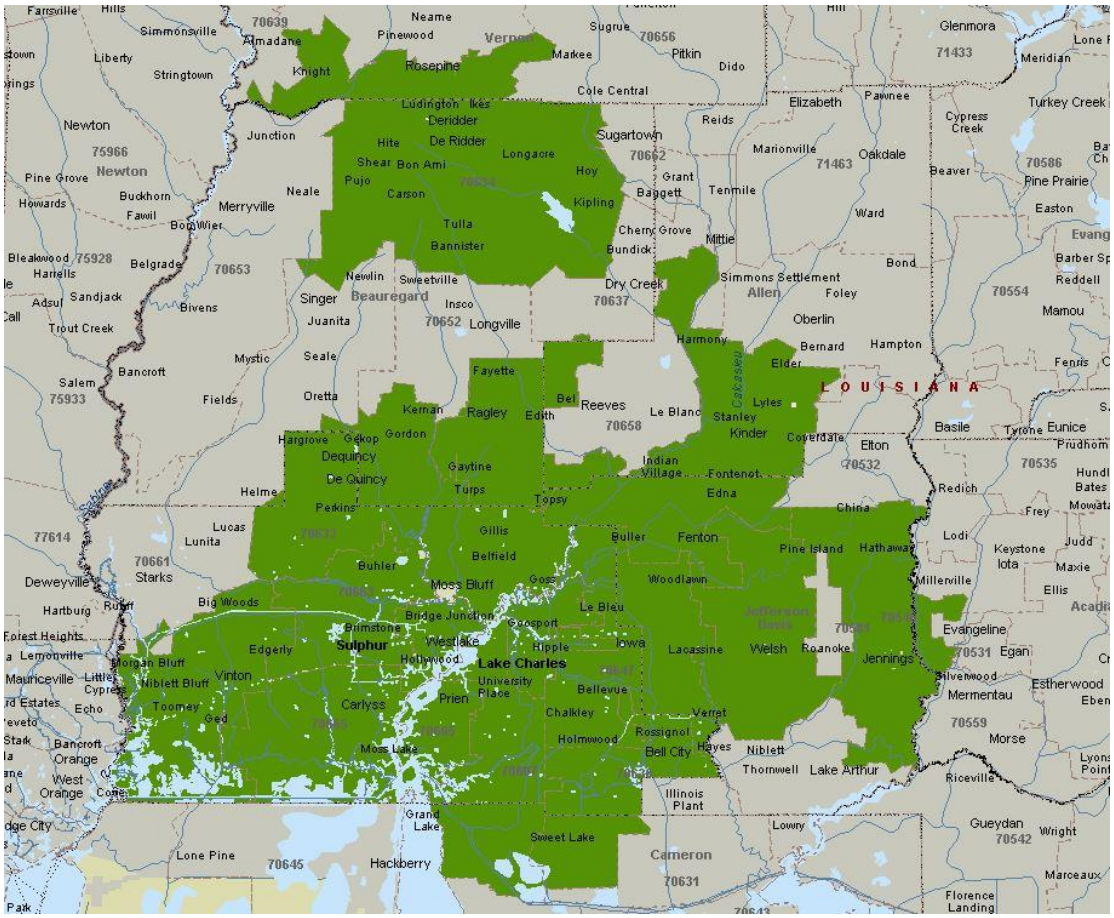
Primary/Community Service Area

In 2016, a total of 17 ZIP codes were analyzed for Lake Charles Memorial Health System. These ZIP codes represent the primary service area (PSA) or overall ZIP code study area for Lake Charles Memorial. The 2016 community health needs assessment focused on 17 specific ZIP codes: 70601, 70633, 70605, 70668, 70607, 70634, 70663, 70630, 70611, 70546, 70615, 70657, 70647, 70591, 70669, 70648, and 70665.

The primary service area is defined as having 80 percent of patient discharges; however, patients who utilize services from Lake Charles Memorial also come from surrounding parishes such as Allen, Beauregard, Cameron, and Jefferson Davis. Currently, over 70 percent of Lake Charles Memorial Hospital's discharges originate in Calcasieu Parish.

In the following map, communities that are shaded represent the primary service area (See Map 1).

Map 1: Overall Primary Service Area – 2016 Study Area Map



Source: Truven Health Analytics

The information presented in the table below reports population growth by area. The overall ZIP code study area encompasses the 17 ZIP codes defined as Lake Charles Memorial's PSA. A population change of 2.2 percent is expected to occur within the overall ZIP code area. The parish study area for Lake Charles Memorial Health System showed that Allen, Beauregard, and Calcasieu Parishes are expected to experience population growth from 2015 to 2020. Cameron and Jefferson Davis Parishes are anticipated to have a decrease in population of -1.1 percent or -0.9 percent respectively. Louisiana is expected to have a population increase of 137,153, or 2.9%, in 2020 (See Table 1).

Table 1: Percent Area Population Snapshot

	Overall ZIP Code Study Area	Allen Parish	Beauregard Parish	Calcasieu Parish	Cameron Parish	Jefferson Davis Parish	LA	USA
% Change 2015-2020	2.2	0.1	1.6	2.6	-1.1	-0.9	2.9	3.5

Source: Truven Health Analytics

There is a close representation of males and females in the overall ZIP code study area by 2020. Calcasieu Parish is predicted to have more males and females than the rest of the parishes in the study area by 2020.

Jefferson Davis is predicted to see a higher decrease in the male population (-0.8 percent); while Cameron Parish is expected to see a higher decrease in the female population (-1.7 percent) by 2020 when compared to the remaining parishes and overall study area. The state of Louisiana will continue to see an increase in both males (3.1 percent) and females (2.8 percent) by 2020 (See Table 2).

Table 2: Percent of Gender Snapshot

	Overall ZIP Code Study Area	Allen Parish	Beauregard Parish	Calcasieu Parish	Cameron Parish	Jefferson Davis Parish	LA
% Change 2015-2020 Male Pop.	2.3	0.3	1.4	2.7	-0.5	-0.8	3.1
% Change 2015-2020 Female Pop.	2.1	-0.1	1.8	2.5	-1.7	-1.1	2.8

Source: Truven Health Analytics

The data reveal a higher representation in the overall ZIP code study area of White Non-Hispanic when compared to other races. Allen (70.1 percent), Beauregard (78.9 percent), Calcasieu (69.3 percent), Cameron (95.5 percent), and Jefferson Davis (76.6 percent) Parishes are predominately White, Non-Hispanic (See Table 3).

- Calcasieu Parish has the highest rate of Black Non-Hispanic (23.8 percent) and Asian & Pacific Islander Non-Hispanic (1.2 percent) population.
- Beauregard Parish has the highest rate of Hispanic (4.1 percent) population.

Table 3: Percentage of Race/Ethnicity Snapshot

	Overall ZIP Code Study Area	Allen Parish	Beauregard Parish	Calcasieu Parish	Cameron Parish	Jefferson Davis Parish	LA	USA
White Non-Hispanic	70.5	70.1	78.9	69.3	95.5	76.6	59.1	61.8
Black Non-Hispanic	22.4	23.1	12.7	23.8	1.2	18.3	32.0	12.3
Hispanic	3.2	1.9	4.1	3.2	1.5	2.0	4.9	17.6
Asian & Pacific Islander Non-Hispanic	1.1	0.7	0.8	1.2	0.1	0.4	1.8	5.3
All Others	2.8	4.2	3.5	2.6	1.6	2.7	2.3	3.1

Source: Truven Health Analytics

Examining Community Needs Index (CNI) ZIP code information by Truven Health Analytics is important as the ranking scores provide valuable background information in regard to accessibility to health care services. The CNI scores provide greater ability to diagnose community needs as it explores neighborhoods (e.g. ZIP codes) with accessibility barriers.

The score for the overall ZIP code study area in 2014 and 2015 was 3.8*. There was no change in CNI scores between years 2014 and 2015. The median CNI score for the ZIP code study area overall is 3.0. Again, a CNI score of 1.0 indicates a ZIP code with the least need, while a score of 5.0 represents a ZIP code with significant needs.

It is important to note that ZIP codes with a low score (e.g., 1.0) do not imply that no attention should be given to that neighborhood; rather, hospital leadership should decipher what specifically is working well to ensure a low neighborhood score (See Table 4).

Table 4: Overall ZIP Code Study Area Summary

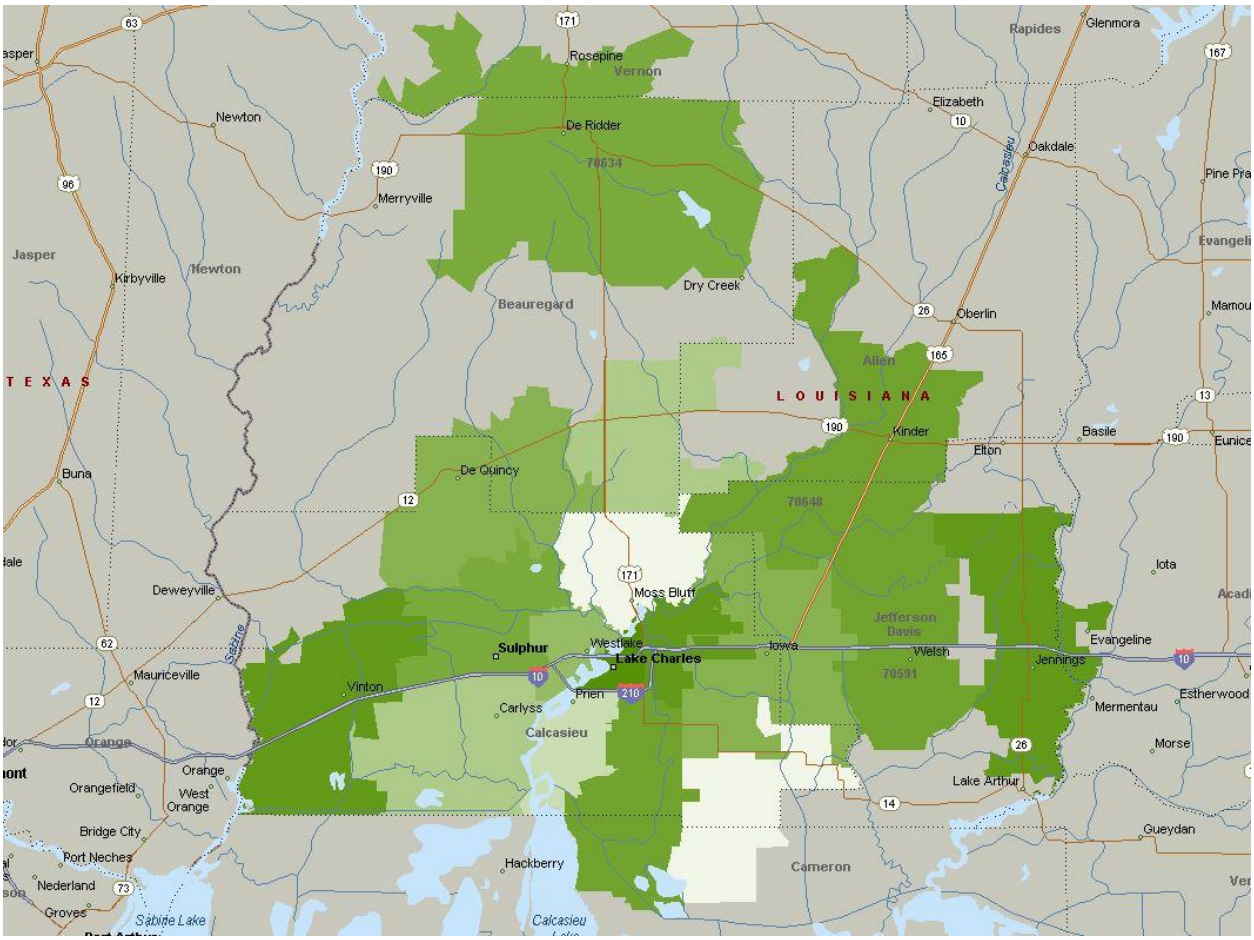
	2015 Population	Poverty 65+	Poverty Child	Sin. w/ Children Poverty	Limited English	Minority %	No High School Diploma %	Unemployment %	Uninsured %	Rent	Income Rank	Culture Rank	Edu Rank	Insurance Rank	House Rank	2014 CNI Score	2015 CNI Score	CNI Score Change
Overall ZIP Code Study Area	263,132	12.8	20.9	46.5	0.6	29.5	15.2	8.6	14.8	28.3	4	4	3	4	4	3.8*	3.8*	0.0

Source: Truven Health Analytics

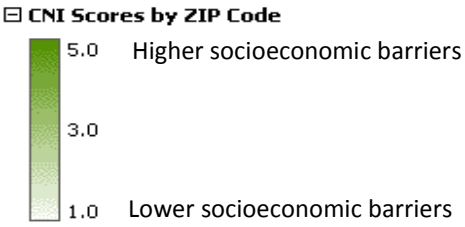
* Weighted average of total market

Continuing to review CNI information, the map below provides a geographic representation of the CNI scores for each specific ZIP code. ZIP codes that have higher socioeconomic barriers (5.0) are represented in dark green. As the socioeconomic scores decrease, the coding color lightens. There are concentrated areas within Lake Charles that signify high socioeconomic barriers to care (See Map 2).

Map 2: CNI Study Area Map



Source: Truven Health Analytics



Key Community Health Needs

There are multiple ideas of what constitutes a healthy community; however, a healthy community typically encompasses residents who have good physical, mental, and emotional health. A strong healthy community allows and promotes well-being and provides high quality services and accessibility to those services. It also creates an environment that allows residents and people to thrive on many levels, stems unhealthy behaviors, and reduces illnesses.

A) Access to Care

Access to care is the ability to obtain comprehensive, high quality health care services in order to improve a person's quality of life. Having access to health services can enable one to have positive health outcomes along with an improved life, overall physical, social, and mental health status, the prevention of disease and disability, detection and treatment of health conditions, preventable deaths, and longer life expectancy.[5]

The inability to access health care services can create large health disparities and further displace residents needing services. These gaps will negatively impact people's ability to improve their quality of life. Barriers to health care services include: lack of availability, high cost of care, and lack of insurance coverage.[6] Addressing these barriers can prevent hospitalization, improve preventative/health services, and address unmet health needs.

The table below provided a snapshot from County Health Rankings and Roadmaps where Allen, Beauregard, Calcasieu, Cameron, and Jefferson Davis Parishes ranked in years 2016 and 2011. The ranking scale enables communities, organizations, and agencies to assess where their communities lie in comparison to the 64 parishes in Louisiana.

Calcasieu ranked 14 out of 64 Health Factors in 2016 (the mean is 32); while Allen ranked 25, Beauregard ranked 15, Cameron ranked 2 (a positive ranking), and Jefferson Davis ranked 21 in 2016. The clinical ranking measures access to care and quality of care for Calcasieu was 11 in 2016; this is an increase ranking score from a nine in 2011 (See Table5).

Features that are used to derive the Health Factors rankings are health behaviors, clinical care, social and economic factors, and physical environment. These measures provide a glimpse into the specific influences that craft the behaviors of community residents.

[5] Office of Disease Prevention and Health Promotion: www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services
[6] Ibid.

Table 5: County Health Rankings[7]

	Health Outcomes	Health Factors	Mortality (Length of Life)	Morbidity (Quality of Life)	Health Behaviors	Clinical Care	Social & Economic Factors	Physical Environment
Allen								
2016	14	25	11	16	39	43	18	7
2011	2	36	1	49	34	47	34	32
Beauregard								
2016	16	15	13	15	29	42	10	1
2011	29	20	31	24	25	45	13	49
Calcasieu								
2016	24	14	24	23	28	11	16	16
2011	32	15	42	19	39	9	10	39
Cameron								
2016	1	2	1	2	3	14	1	6
2011	3	5	4	3	3	54	2	43
Jefferson Davis								
2016	27	21	33	21	19	44	22	17
2011	52	29	53	46	59	32	14	5

Source: County Health Rankings & Roadmaps

[7] Louisiana has 64 parishes; the rating scale for Louisiana is 1 to 64 (1 being the healthiest parish and 64 being the least healthy). Parishes are ranked relative to the health of other parishes in the same state on specific measures.

Services for Uninsured/Underinsured and Low-Income Population

Access to health care services is a challenge for many, and residents who are uninsured/underinsured or low-income face additional challenges to obtaining needed care. Affordability, lack of health insurance, and access to primary care and specialty care physicians are specific issues identified in the 2016 CHNA which have prohibited residents from obtaining care and services. Primary and secondary data collected reiterate the difficulties and problems community residents face when trying to obtain health care services.

Having health care coverage is a critical component to receiving and obtaining care. The types of insurance, out-of-pocket costs and high deductibles impact the frequency with which residents obtain care and services. Residents who are affected by the inability to obtain or secure health insurance are typically those who are low-income and economically challenged. Without health insurance community residents tend to have poor health outcomes.

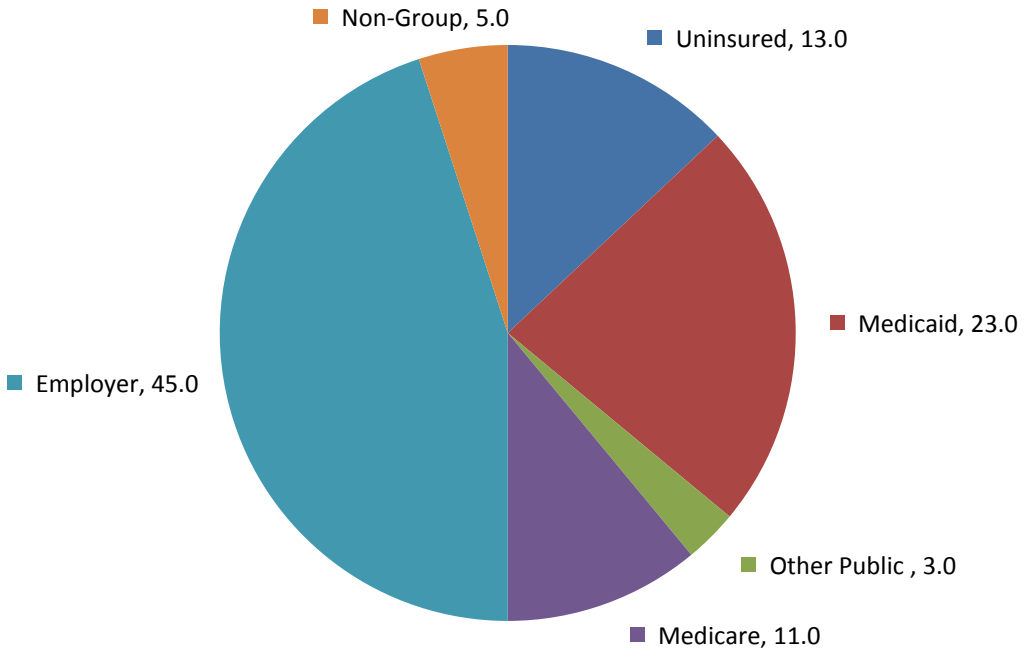
In 2014, Louisiana had one of the highest uninsured rates (13.0 percent) in the U.S. Half (50.0 percent) of Louisianans with health insurance were covered under private health insurance, with 45.0 percent of Louisianans covered by employer-sponsored insurance and the remaining 5.0 percent covered by individual coverage. More than one-quarter (26.0 percent) were covered by Medicaid/other public coverage and 11.0 percent were covered by Medicare. Of the over half million beneficiaries enrolled in Medicare, nearly one-third (30.0 percent) were enrolled in Medicare Advantage plans in 2015[8] (See Graph 3).

Individuals who were uninsured in 2014 were primarily low-income, in working families, and White non-Hispanic. Because most elderly Louisianans are covered by Medicare, most uninsured are nonelderly (under age 65).[9]

Additionally, residents who are uninsured often face unaffordable medical bills when seeking care. Other out-of-pocket costs such as prescription medication make health care services an unobtainable luxury. In 2014, nearly 36.0 percent of low-and middle-income uninsured adults said they had problems paying medical bills.[10] Medical bills can become medical debt as low-income residents have little to no savings and/or room to budget for such costs.

[8] Kaiser Family Foundation: http://kff.org/health-reform/fact-sheet/the-louisiana-health-care-landscape/
[9] Ibid.
[10] Kaiser Family Foundation: http://kff.org/uninsured/fact-sheet/key-facts-about-the-uninsured-population/

Graph 3: Type of Health Insurance Coverage of the Total Population in Louisiana[11]



Source: Kaiser Family Foundation
Note: Non-group: Includes individuals and families that purchased or are covered as a dependent by non-group insurance.

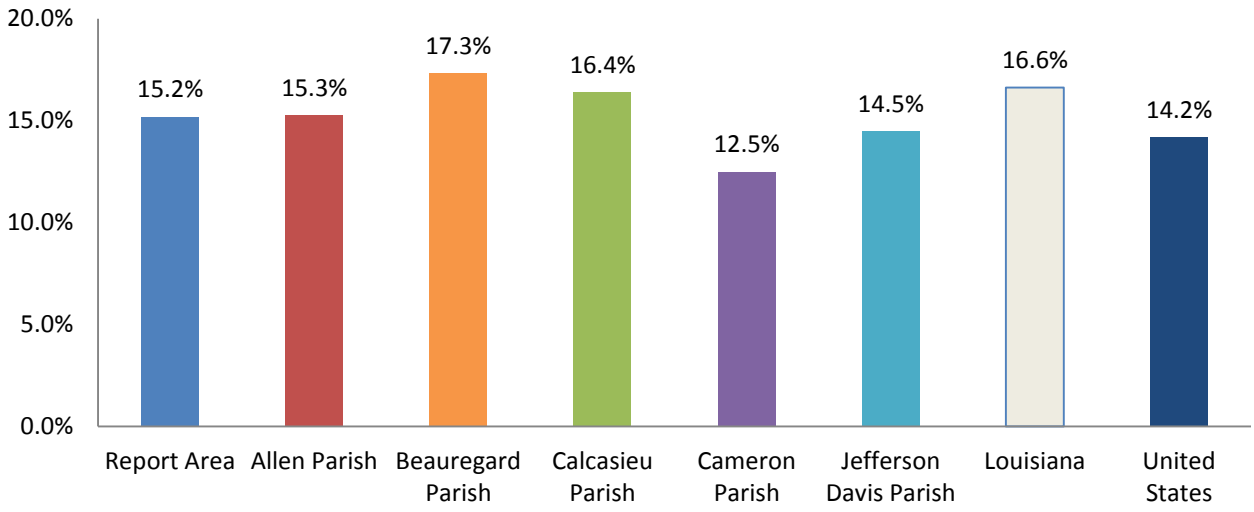
In 2013, the overall uninsured rate among nonelderly individuals was 16.7 percent; however, in the first quarter of 2016, the uninsured rate among all U.S. adults fell to 11.0 percent. With the implementation of the Patient Protection Affordable Care Act (PPACA) the number of insured Americans has grown, creating a strong structure and pathway for many to obtain care and services. Data show that many are able to obtain health care insurance coverage; regrettably, there are still many who are uninsured and face difficulties in trying to obtain insurance.

Investigating data broken out by parishes revealed that 15.2 percent of residents in the report area are uninsured or do not have health insurance. Unfortunately, there are more Beauregard residents (17.3 percent) who are uninsured when compared to the state (16.6 percent) and the nation (14.2 percent) (See Graph 4).

The report area referenced in the graph below is the average percent of all study area parishes. This average provides Lake Charles Memorial with a quick snapshot of their residents within the region.

[11] Kaiser Family Foundation: http://kff.org/other/state-indicator/total-population/?state=LA

Graph 4: Health Insurance – Uninsured (Total Population)



Source: US Census Bureau, American Community Survey

The hand-distributed survey findings from the study area reported that more than one-third of survey respondents do not have health insurance (34.6 percent). Reasons why survey respondents do not have health insurance include: affordability (58.7 percent), not qualifying (21.7 percent), and had insurance but lost it (15.2 percent).

Data collected from health providers reported that the biggest barriers for people not receiving care are no insurance coverage (19.5 percent), out-of-pocket costs/high deductibles (19.2 percent), and no transportation (13.5 percent).

The inability to afford health insurance plays a major role in how residents seek medical care. Community residents who are economically disadvantaged will not seek preventative health care services and often seek care only when their health has significantly deteriorated. Basic necessities such as food, housing, and clothing will be the priority for those who are economically challenged. Primary data findings reinforce that overall costs are a detriment to community residents seeking care and the percentage of those who are uninsured coincide with the hand-distributed survey and the health provider survey findings.

Examining again the clinical care rankings within the parish study areas revealed that Calcasieu Parish increased their clinical care score in 2011 from a nine to a ranking of 11 in 2016. The additional rankings or ranking changes signify a negative move within the clinical care measurements.

Jefferson Davis and Calcasieu Parish had an increased score from 2011 to 2016, which indicated that a specific measurement affected the ranking positively. The increased ranking scores indicated that specific measures such as the uninsured, primary care physicians, dentists, mental health providers, preventable hospital stays, diabetic monitoring, and mammography screening rates have been impacted; thus, altering the overall ranking outcome (See Table 6). As a community group, it is

important to further examine what specific metrics and measures were affected which impacted the ranking change.

Table 6: County Health Rankings Clinical Care Rankings

	Clinical Care
Allen	
2016	43
2011	47
Beauregard	
2016	42
2011	45
Calcasieu	
2016	11
2011	9
Cameron	
2016	14
2011	54
Jefferson Davis	
2016	44
2011	32

Source: County Health Rankings & Roadmaps

Truven Health Analytics data, a socioeconomic database called Community Needs Index (CNI), was obtained to understand socioeconomic factors within specific neighborhoods and communities that have access issues and barriers to care. Based on a wide array of demographic and economic statistics, CNI provides a score on a scale of 1.0 to 5.0. A score of 1.0 indicates a ZIP code with the least need, while a score of 5.0 represents a ZIP code with the most need within a specific neighborhood or community.

The CNI insurance scores for ZIP codes 70601,70615,70668,70546, 70607, 70591, and 70633 have high ranking scores (5) which indicate a high insurance need. It is also interesting to note that each of these ZIP codes also scored a 4 or 5 in the income category; thus, obtaining health insurance will be difficult for residents in that particular neighborhood or community (See Table 7).

Table 7: Community Needs Index (CNI) ZIP Code Scores

Zip	City	2015 Population	Income	Culture	Education	Insurance	House
70601	Lake Charles	31,466	4	5	4	5	5
70615	Lake Charles	14,040	4	5	4	5	4
70668	Vinton	6,479	4	4	5	5	4
70546	Jennings	15,895	4	4	5	5	4
70607	Lake Charles	26,455	4	5	3	5	4
70591	Welsh	5,318	5	4	4	5	3
70648	Kinder	8,438	4	4	5	4	4
70663	Sulphur	28,308	5	3	4	4	4
70634	Deridder	26,148	4	4	4	4	4
70647	Iowa	10,030	4	4	4	4	3
70633	Dequincy	8,510	4	3	4	5	3
70669	Westlake	10,199	4	4	3	4	3
70665	Sulphur	10,946	4	3	3	4	2
70657	Ragley	4,845	5	2	4	4	1
70605	Lake Charles	34,175	2	3	1	4	4
70611	Lake Charles	20,056	1	3	2	3	2
70630	Bell City	1,824	2	2	3	3	1

Source: Truven Health Analytics

Information from Table 8 revealed ZIP code 70601 (Lake Charles) has a large population of children living in poverty (33.4 percent), minorities (72.5 percent), unemployment (12.7 percent), and residents who rent (47.9 percent) when compared to the remaining ZIP codes within these measures.

Overall, residents in ZIP code 70601 (Lake Charles) also face high socioeconomic barriers when seeking care and services; the CNI score of 4.6 is the highest score (on a scale of 1.0 – 5.0) when compared to the remaining 16 ZIP codes in the study area. Again, the higher percentages within each of the measures contribute to the high scores for the neighborhood or community. It is easy to conclude that having high unemployment rates (being unemployed) adds greater accessibility issues to health, social, and daily living factors.

Table 8: CNI ZIP Codes: Specific Data and Measures

Zip	Poverty 65+ %	Poverty Children %	Poverty Single w/kids %	Limited English %	Minority %	No H/S Diploma %	Un-Employ %	Un-insured %	Rent %	2015 CNI Score
70601	20.31%	33.45%	52.00%	0.39%	72.54%	18.99%	12.75%	22.84%	47.96%	4.6
70615	16.87%	26.84%	52.84%	0.34%	59.69%	20.21%	11.30%	18.60%	33.49%	4.4
70668	25.65%	19.92%	47.50%	1.03%	19.05%	22.09%	5.99%	22.97%	26.24%	4.4
70546	18.20%	22.44%	49.33%	1.14%	24.45%	22.45%	10.02%	17.62%	27.94%	4.4
70607	6.62%	24.55%	53.00%	1.25%	43.63%	14.10%	9.43%	18.20%	33.42%	4.2
70591	23.06%	26.55%	62.46%	0.26%	19.76%	18.39%	9.15%	15.05%	22.40%	4.2
70648	19.21%	17.95%	45.00%	1.17%	33.50%	24.44%	7.39%	11.60%	25.58%	4.2
70663	11.22%	24.84%	63.63%	0.67%	12.82%	15.80%	9.64%	14.20%	26.87%	4.0
70634	15.02%	19.28%	45.50%	0.32%	26.55%	15.36%	7.21%	11.13%	25.42%	4.0
70647	11.25%	20.43%	49.40%	0.57%	22.16%	14.46%	7.91%	13.93%	21.61%	3.8
70633	10.26%	26.26%	45.85%	0.15%	17.97%	18.39%	9.76%	15.70%	21.81%	3.8
70669	16.89%	26.94%	48.82%	0.99%	18.83%	13.35%	10.95%	12.70%	23.94%	3.6
70665	5.10%	16.57%	59.14%	0.28%	10.57%	13.16%	7.94%	12.93%	18.32%	3.2
70657	31.95%	11.11%	63.74%	0.09%	6.32%	16.83%	4.87%	11.21%	11.57%	3.2
70605	4.83%	11.31%	26.17%	0.61%	17.09%	6.88%	6.04%	10.92%	27.57%	2.8
70611	5.71%	5.86%	18.99%	0.30%	11.09%	9.73%	4.46%	7.72%	16.92%	2.2
70630	9.70%	7.27%	34.38%	0.18%	8.00%	12.35%	7.62%	8.47%	12.81%	2.2

Source: Truven Health Analytics

* Weighted average of total market

Access to health services for community residents who are uninsured/underinsured or who are low-income is essential and health care providers, organizations, and leaders must be ready to address these demands in order to alleviate and reduce health disparities regarding accessibility.

Access to Primary Care Physicians and Specialists

Primary Care Physicians

Visiting and obtaining care from a Primary Care Physician (PCP) can benefit patients' health and overall wellness in the short and long-term. Patients who seek care and treatment from a PCP are able to be more aware of their health conditions, manage their conditions, reduce their overall cost, and create a trusting relationship with their provider.

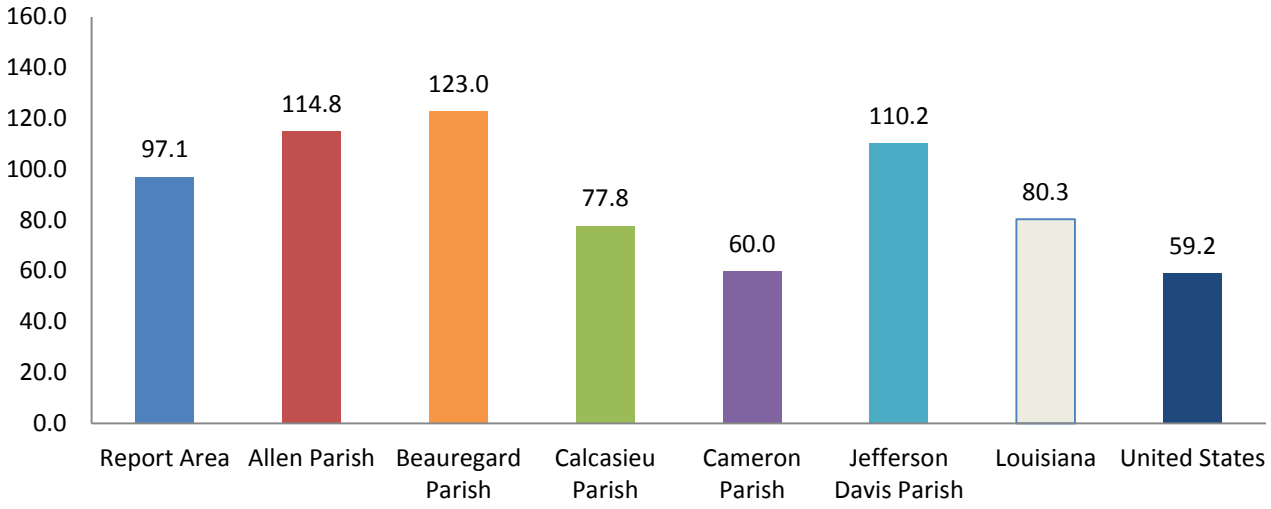
A strong relationship with a health care provider allows the PCP and the medical office to be aware of the patient's medical history. Being aware of existing conditions can prevent future problems and expedite treatment as the PCP and the medical office are able to detect changes in lifestyles and outcomes. Patient care can be coordinated in one location and preventative health care services are more accessible. Ailments which range from colds to stomach pains can be diagnosed and chronic health conditions and treatment for conditions such as asthma and diabetes could also be managed by the PCP and the medical office.

When working closely with a primary care physician and other healthcare providers (e.g. coordinated care), care is continuous and provided in a high quality manner. The 2016 CHNA identified access to primary care physicians and specialists as a top need for Southwest Louisiana.

Examining data regarding the Medicare enrollees discharge rate for preventable hospital stays for residents in Beauregard (123.0), Allen (114.8), and Jefferson Davis (110.2) Parishes (per 1,000 Medicare enrollees) the rates are higher than the state (80.3) and nation (59.2) (See Graph 5). This indicator reports the discharge rate (per 1,000 Medicare enrollees) for conditions that are ambulatory care sensitive (ACS).

ACS conditions include pneumonia, dehydration, asthma, diabetes, and other conditions which could have been prevented if adequate primary care resources were available and accessed by those patients. This indicator is pertinent because analysis of ACS discharges demonstrates a possible "return on investment" from interventions which can reduce hospital admissions (for example, for uninsured or Medicaid patients) through better access to primary care resources.

Graph 5: Preventable Hospital Stays (Ambulatory Care Sensitive Condition Discharge Rate per 1,000 Medicare enrollees)

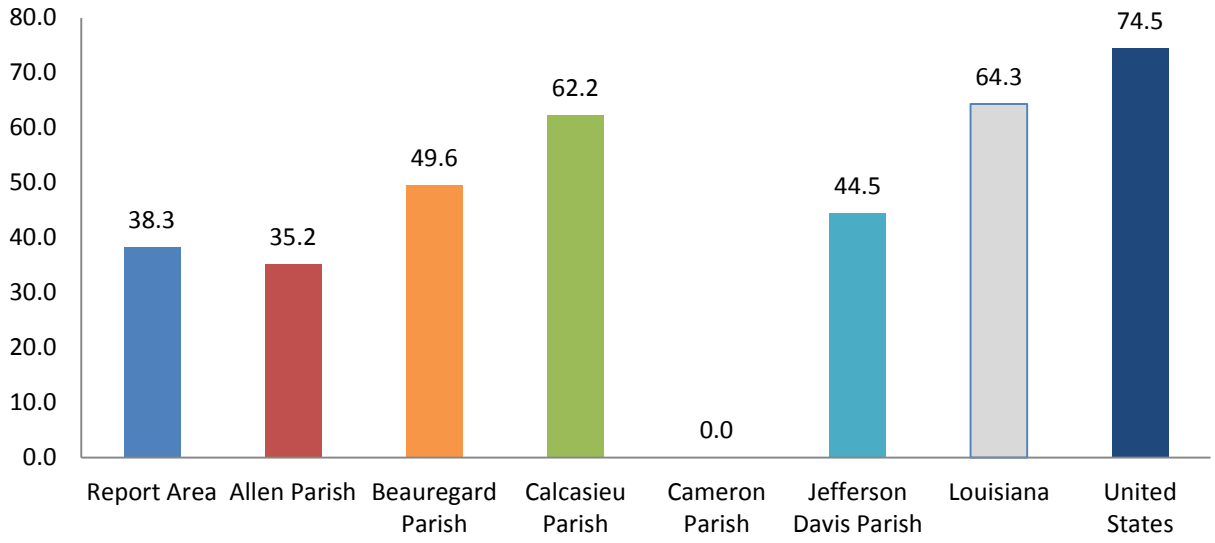


Source: Dartmouth College Institute for Health Policy Clinical Practice, Dartmouth Atlas of Health Care

Access to primary care physicians in Calcasieu Parish (62.2) is higher when compared the remaining four parishes in the county study area; this rate however, is still lower than the state (64.3) and the nation (74.5) in 2012. On the polar end, residents in Allen Parish (35.2) reported the lowest rate of physicians per 100,000 population (See Graph 6).

This gauge is applicable because a shortage of health professionals contributes to access and health status issues.

Graph 6: Access to Primary Care Physicians (Rate of physicians per 100,000 Population 2012)

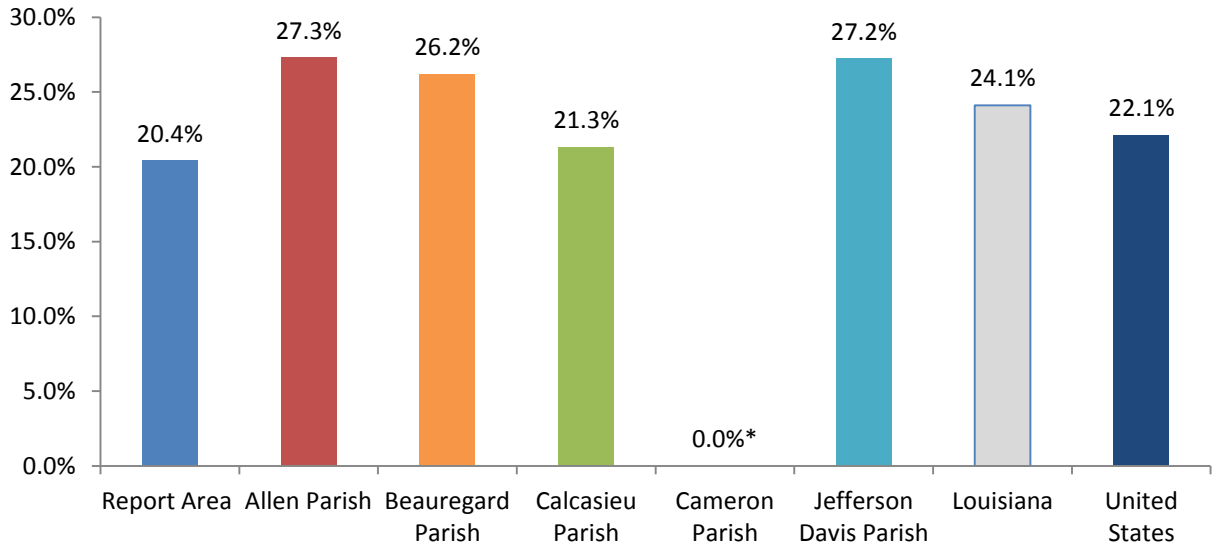


Source: US Department of Health Human Services, Health Resources and Services Administration

Note: No data was available for Cameron Parish

Further information showed that Allen (27.3 percent) and Jefferson Davis (27.2 percent) parishes have more residents who reported that they did not have at least one person who they believe was their personal doctor or health care provider; this is higher than the state (24.1 percent) and the nation (22.1 percent) (See Graph 7). Access to regular primary care is important in preventing major health issues and emergency department visits.

Graph 7: Lack of Consistent Source of Primary Care (% of adults 18+ with No Personal Doctor)



Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System

Note: No data was available for Cameron Parish

Table 9 reports the number and location of health care facilities designated as "Health Professional Shortage Areas" (HPSAs). This indicator is relevant because a shortage of health professionals contributes to access and health status issues. There are more designated HPSA facilities in Calcasieu Parish (7) compared to the remaining parishes in the study area.

Table 9: Facilities Designated as Health Professional Shortage Area (HPSA)[12]

Report Area 2015	Primary Care Facilities	Mental Health Care Facilities	Dental Health Care Facilities	Total HPSA Facility Designations
Allen Parish	1	1	1	3
Beauregard Parish	0	0	0	0
Calcasieu Parish	3	2	2	7
Cameron Parish	0	0	0	0
Jefferson Davis Parish	2	1	1	4
Louisiana	57	48	47	152
United States	3,427	3,060	2,915	8,810

Source: US Department of Health Human Services, Health Resources and Services Administration

Personal information collected from the hand-distributed survey provides a deep understanding and awareness of the social and health behaviors of residents. Accepting the point of view of survey respondents can clarify issues which make access to services and programs difficult for many in the community. The hand-distributed survey results from 2016 revealed that 24.6 percent of participants do not have a primary care physician. Of those who do not have a PCP, 54.1 percent indicated that they cannot afford one, and 18.9 percent do not need one.

A majority of survey respondents seek care in a doctor's office or clinic (72.4%) and a majority had an appointment with a doctor or primary care provider within the past year (79.3%).

Health care professionals, in particular primary care physicians, are important to communities as they assist in the health and care coordination of community residents. An aging "Baby Boomer" generation will exhaust health services, making the ability to secure appointments more difficult and health care costs and services more expensive.

[12] An HPSA is a geographic area, population group, or health care facility that has been designated by the Federal government as having a shortage of health professionals. This indicator reports the percentage of the population that is living in a geographic area designated as a "Health Professional Shortage Area" (HPSA), defined as having a shortage of primary medical care, dental or mental health professionals.

Gaps in the continuity of care among the uninsured/underinsured and low-income populations will grow if primary care and specialty physicians are unavailable to address the growing health concerns in the region. Unfortunately, as the need for and importance of services increases the number of available PCPs is shrinking.

The U.S. is facing a significant physician shortage. An aging population has placed additional strains on a health care system which is struggling to meet the demands of its residents. Closing the gap in the number of available physicians and health care providers will be difficult as many physicians and providers are retiring and fewer providers are entering the workforce.

An aging population (which increases the number of people who are eligible for Medicare) and implementation of the PPACA has resulted in approximately 41 million Americans gaining access to health insurance. "The nation's goal of having the very best physician workforce in the world faces challenges. The healthcare delivery system is changing. Even as healthcare systems face these new problems, past problems remain unsolved – physicians are poorly distributed geographically in relation to population needs and have become increasingly specialized, while primary care remains under-resourced."[13]

Most recently, physician shortages have gained national attention due to increasing demand for care. Approximately one in five Americans already lives in a region designated as having a shortage of primary care physicians.[14]

In 2012, The Association of American Medical Colleges (AAMC) reported that Louisiana had 3,606 practicing primary care physicians (PCPs) and was ranked 30 out of 50 states in active PCPs per 100,000 population (See Table 10). The percentage of active physicians who are aged 60 years and older in Louisiana is 29.2 percent, slightly higher than the state median of 26.5 percent. There were 78.4 active primary care physicians per 100,000 population in 2012 compared to the state median of 90.3 per 100,000 population (See Table11).[15]

[13] Council of Graduate Medical Education (COGME): Twenty-First Report: Improving Value in Graduate Medical Education (August 2013).
[14] Newly Insured to Deepen Primary-Care Doctor Gap (June 2013).
[15] Association of American Medical Colleges: https://www.aamc.org/data/workforce/reports/profiles/

Table 10: Louisiana Physician Workforce Profile 2012

Workforce Profile 2012	
State Population	4,601,893
Population ≤ age 18	1,179,531
Total Active Physicians	10,846
Primary Care Physicians	3,606
Total Medical or Osteopathic Students	2,050
Total Residents	1,967

Source: The Association of American Medical Colleges (AAMC)

Table 11: Louisiana Physician Workforce Profile 2012

Physician Supply	Louisiana	*State Median
Active Primary Care Physicians per 100,000 Population, 2012	78.4	90.3
Percentage of Active Physicians Who Are Age 60 or Older, 2012	29.2%	26.5%
*State Median: The value directly in the middle of the 50 states, so 25 are above the median and 25 are below and excludes the District of Columbia and Puerto Rico.		

Source: The Association of American Medical Colleges (AAMC)

Attracting, recruiting, and retaining physicians in rural parts of Southwest Louisiana is a challenge. Social and environmental attractions (e.g. cultural events, school systems), and other urban amenities are more attractive to many physicians. With the decline of professionals entering the medical field, Lake Charles Memorial must strategize its efforts to recruit and retain physicians into their service area.

Specialty Care Physicians

In addition to access to primary care physicians, the 2016 CHNA identified access to specialty care physicians as a key need as well. Shortages are not limited to just primary care physicians but also include specialists as well. Rural Louisianans will be greatly affected by these specialty shortages. It comes as no surprise that physicians tend to practice in more populated communities. Unfortunately, as these physicians practice in more populated communities, rural residents will be forced to travel further for health care – making access to services more difficult due to transportation barriers. Residents who are not low-income will not encounter such barriers; thus, it will be important that community groups and organizations, along with health care institutions, seek innovative methods to address and fill gaps left by specialty care providers.

The AAMC's Center for Workforce Studies estimated that the U.S. will face a shortage of 46,100 surgeons and medical specialists by 2020. The estimates were calculated by taking into account the

millions of patients who became eligible for Medicare, the 32 million patients who will become newly insured through the PPACA, and an aging physician workforce.[16]

The supply cannot match the demand for physicians. The AAMC reported that by 2025 a shortfall of between 28,200 and 63,700 non-primary care physicians will occur. Specifically, there will be an estimated specialty shortage of 5,100 to 12,300 medical specialists, 23,100 to 31,600 surgical specialists, and 2,400 to 20,200 other specialists in the U.S.[17]

With the population facing poor health outcomes due to residents' poor health behaviors (e.g. the obesity epidemic and an increased lifespan) the need for orthopedics has grown in order to address the health and social factors of those in the community.

The need for oncologists will nearly double and leads to a shortfall of 1,500 cancer specialists by 2025. It was reported that more than 70.0 percent of U.S. counties do not have oncologists and the growth of new cancer cases will increase the need dramatically. According to the AAMC, general surgery is predicted to be among the hardest hit, with a shortage of 21,400 surgeons by 2020. The number of practicing general surgeons is expected to fall to 30,800 by 2020 from 39,100 in 2000.[18]

Southwest Louisiana has been impacted by the lack of specialty physicians in the region. Transportation difficulties in rural regions of the state limited the accessibility to health care services, and impacts how rural residents obtained care. It is clear that the need for physicians will grow; however, it is also imperative to support and provide avenues to assist community residents to obtaining care in order to reduce and close the gaps in health care disparities.

[16] Association of American Medical Colleges: www.aamc.org/newsroom/reporter/february2014/370350/physician-shortage.html

[17] Association of American Medical Colleges: waww.aamc.org/download/426260/data/physiciansupplyanddemandthrough2025keyfindings.pdf

[18] Becker Hospital Review: www.beckershospitalreview.com/hospital-physician-relationships/15-things-to-know-about-the-physician-shortage.html

B) Behavioral Health

Access to behavioral health services was identified as a key priority in the 2016 CHNA process. This includes mental health and substance abuse. Information collected from primary and secondary data sources highlight the regional and national concerns to increase access to behavioral health.

Socioeconomic factors play a role in how residents are able to obtain care such as the ability to pay for services, having health insurance coverage etc. Shortages of mental and behavioral health professionals is an additional factor which makes access to mental and substance abuse care difficult. Seeking treatment in order to lead a full and rich life is the goal of behavioral health interventions. Primary care and behavioral health treatment can assist patients to thrive successfully at home and in their community.

Mental Health

A positive sense of wellbeing, confidence, and self-esteem are signs of good mental health. Having good mental health brings enjoyment, allows us to appreciate others and enables us to fully enjoy our daily lives and environment. With good mental health we are able to form and create relationships and deal with daily life challenges.

There are many factors which can contribute to mental health problems, they can include: biological factors, such as genes or brain chemistry, life experiences, such as trauma or abuse, and family history of mental health problems.[19]

Primary and secondary data indicate accessibility issues, provider issues, high rates of co-occurring mental disorders, and substance abuse problems create growing concerns related to the state of behavioral health and focus, and attention needs to be brought forth to the topic. Socioeconomic factors play a significant role in mental health as well as genetics. Mental illness is a major issue for residents and families.

According to the Substance Abuse and Mental Health Services Administration (SAMHSA), behavioral health is essential to overall health, with prevention and effective treatment measures allowing individuals to recover from mental health crises. Direct access to health professionals and health services for behavioral health problems enables community residents to obtain proper care and treatment, leading to healthier lives.

According to SAMHSA's 2014 National Survey on Drug Use and Health (NSDUH) an estimated 43.6 million (18.1 percent) Americans age 18 and up experienced some form of mental illness. In the past year, 20.2 million adults (8.4 percent) had a substance use disorder. Of these, 7.9 million people had both a mental disorder and substance use disorder, also known as co-occurring mental and substance use disorders.[20]

[19] Mental Health: https://www.mentalhealth.gov/basics/what-is-mental-health/
[20] Substance Abuse and Mental Health Services Administration: http://www.samhsa.gov/disorders

It was reported that anxiety disorders are the most common type of mental disorders, followed by depressive disorders. Mental disorders can occur once, reoccur, and or be more chronic. Mental disorders frequently co-occur with each other along with substance use disorders.[21]

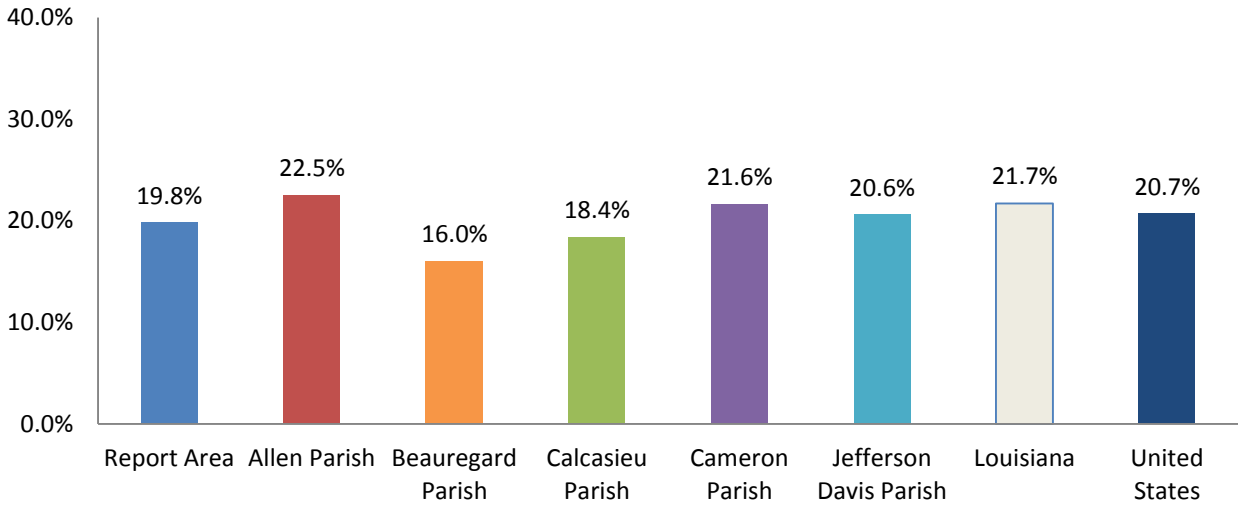
With the implementation of the ACA, health plans are required to cover essential benefits including mental health and substance abuse treatments. The Affordable Care Act extends the impact of the Mental Health Parity and Addiction Equity Act (MHPAEA) so that many health plans must offer coverage for mental health or substance use disorders with at least an equal level of benefits as the plans offer for the treatment of physical health problems.[22] Unfortunately, many Americans still do not seek needed treatment and services and changes within the system have removed some barriers; however, additional work is needed nationally, statewide, and regionally.

Looking at regional data, the Centers for Disease Control and Prevention's Behavioral Risk Factor Surveillance System reported that residents in Calcasieu (17.0 percent) and Jefferson Davis (17.7 percent) Parishes have more Medicare patients with depression when compared to the remaining parishes in the study area, the state (15.7 percent) and the nation (15.4 percent). Cameron Parish (11.7 percent) reported the lowest percentage of Medicare residents with depression.

Allen Parish (22.5 percent) has higher percentages of residents who lack social or emotional support when compared to the state (21.7 percent) and the nation (20.7 percent). This is followed by Cameron (21.6 percent) and Jefferson Davis (20.6 percent) parishes (See Graph 8).

This indicator is relevant because social and emotional support is critical for navigating the challenges of daily life, as well as for good mental health. Social and emotional support is also linked to educational achievement and economic stability.

Graph 8: Lack of Social or Emotional Support



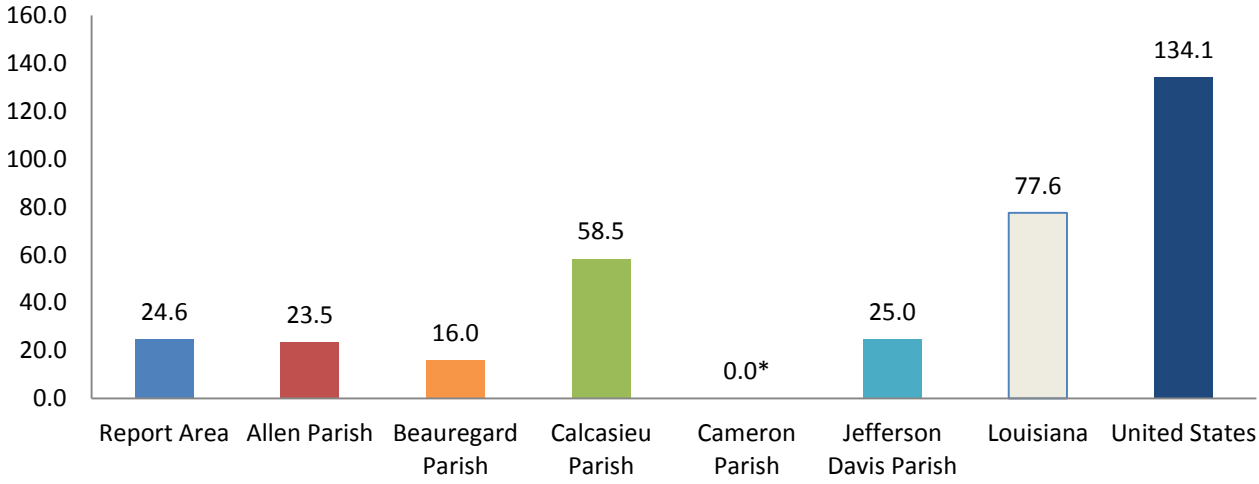
Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. 2006-2012

[21] Ibid.
[22] Ibid.

County Health Rankings reported that Louisiana has 77.6 mental health professionals per 100,000 population. While lower than the state and the nation, the rate of mental health providers is highest in Calcasieu Parish with 58.5 per 100,000 population when compared to the remaining parishes; on the opposite end of the spectrum, Beauregard Parish reported a rate of 16.0 per 100,000 population. This rate is more than four times lower than the state (77.6) and more than eight times lower than the nation (134.1) (See Graph 9).

This indicator reports the rate of the county population to the number of mental health providers including psychiatrists, psychologists, clinical social workers, and counsellors that specialize in mental health care.

Graph 9: Access to Mental Health Providers (Rate per 100,000 Population)



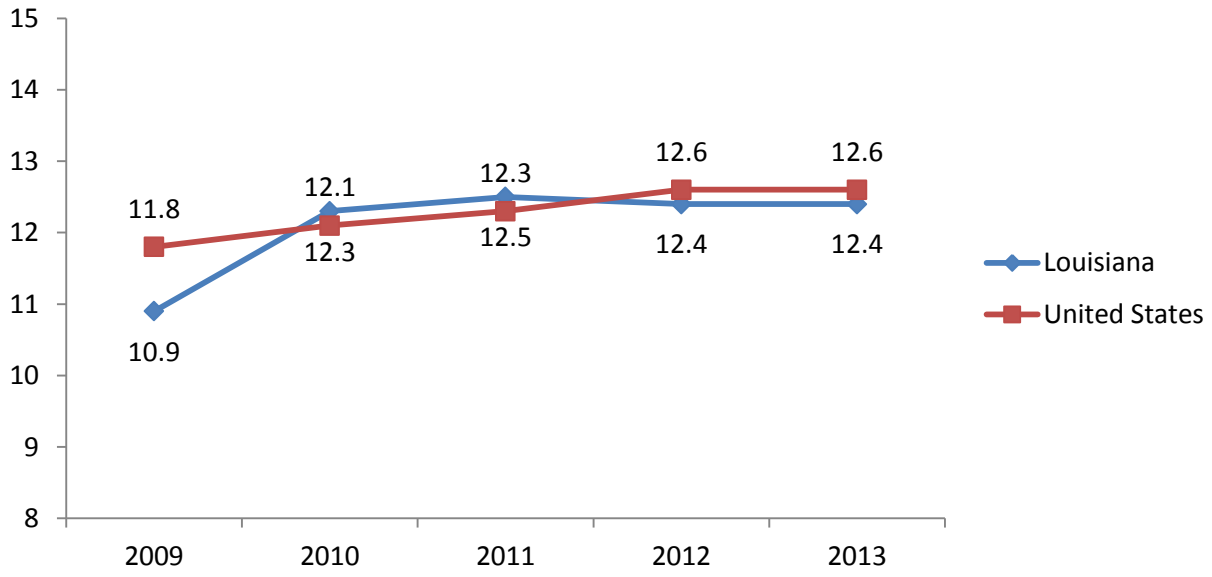
Source: University of Wisconsin Population Health Institute, County Health Rankings

Note: No data available for Cameron Parish

The lack of available mental health providers and psychiatrists is part of an overall physician shortage crisis.

The suicide mortality rate in the state increased from 2009-2011 (10.9 – 12.5 per 100,000 population); decreasing in 2012-2013 to 12.4 per 100,000 population (See Graph 10).

Graph 10: Suicide Mortality (Age-Adjusted Death Rate Per 100,000 Population by Year, 2009-2013)



Source: Centers for Disease Control and Prevention, National Vital Statistics System

Suicide is a major cause of death that affects people of all ages, races, and ethnicities. There were more than 41,000 deaths by suicide in 2013, making it the 10th-leading cause of death.[23] Suicide is a preventable cause of death. Attempting suicide is a cry for help. Residents who attempt suicide are typically depressed, face other significant mental health problems, and typically believe there are limited solutions to their problems.

Information from the hand-distributed survey showed that community residents struggle with mental health challenges. Examining hand-survey results, 17.6 percent of survey respondents have been told they have a mental health concern. Of those survey respondents who have a mental health concern, more than one-third had panic attacks, anxiety, and posttraumatic stress disorder (39.4 percent). One-third (33.3 percent) of residents reported they have clinical depression or bipolar disorder.

Overall, 17.0 percent of survey respondents have received services for a mental health issue. Of those who have received services for a mental health issue, 35.3 percent received services from a counselor, 23.5 percent obtained services from a hospital/emergency room, and 23.5 percent from a primary care doctor/health care professional.

[23] America's Health Rankings: http://www.americashealthrankings.org/ALL/Suicide

It was reported that 8.9 percent of survey respondents did not receive services/treatment they needed. 22.2 percent of survey respondents have not received services they needed because they wanted to make it on their own without treatment and counseling/medication was too expensive.

Cancer (13.3 percent), Drug/Alcohol use (10.8 percent), diabetes (9.0 percent), mental health (8.3 percent), and obesity (6.7 percent) are the top health concerns in the community according to survey respondents.

It was reported that more than one-quarter of survey respondents (25.1 percent) have a physical limitation that affects their daily life, followed by 22.0 percent with a mental or emotional ailment. Data from the hand survey reinforce the growing mental health problems in the community and the opportunity to work in partnership and collaboration with local and regional organizations to combat the growing issue.

Health providers reported that affordable medication (14.7%), access to mental health care services (13.5%), and affordable health care (12.4%) are the health improvements they would most like to see in the current health care system.

Community leaders reported that mental health is a significant health issue; one that is not openly discussed due to the stigma that is often associated with mental illness. Community leaders cited a shortage of mental health professionals as a major contributing factor to the mental health issues in their area. Typically, residents must travel out of the region for care, in particular, for those in need of long-term mental health treatment. Poor socioeconomic status can also contribute to poor mental well-being, which, in turn, can foster engagement in unhealthy behaviors such as drinking, smoking, and drug use.

Health education and information on coping mechanisms to reduce anxiety and holistic techniques can assist residents in dealing with some of their mental health issues; however, the need for counselors and mental health professionals will continue to grow as the current system is overwhelmed.

Residents who face severe mental health challenges such as bipolar disorder, major depression, and schizophrenia require long-term care and medication to control their illnesses. These residents are at a disadvantage because many are unable to obtain and retain employment; thus, are unable to maintain employer health insurance coverage or otherwise afford health insurance premiums. Economic constraints contribute to undiagnosed and/or unmanaged mental illness, which increases the likelihood of engaging in unhealthy behaviors and living in an unhealthy environment.

Community stakeholders also reported that navigation for mental health services is difficult for many who have little and or no knowledge regarding the health care system. Residents in need often rely on assistance from physician offices, their primary care provider, agencies, etc. as many struggle with paperwork, terminology, and comprehension.

It was reported that creating more services (long-term facility care or short-term care) geared towards addressing the mental health issue gap can potentially bridge the divide many communities face regarding services. Having better health care coverage for mental health care and services was also cited as a goal which can bring forth a healthier community.

Substance Abuse

As behavioral health was identified as a key community concern; substance abuse falls under that umbrella. Substance abuse refers to the overindulgence in or dependence on an addictive substance, such as alcohol or drugs.

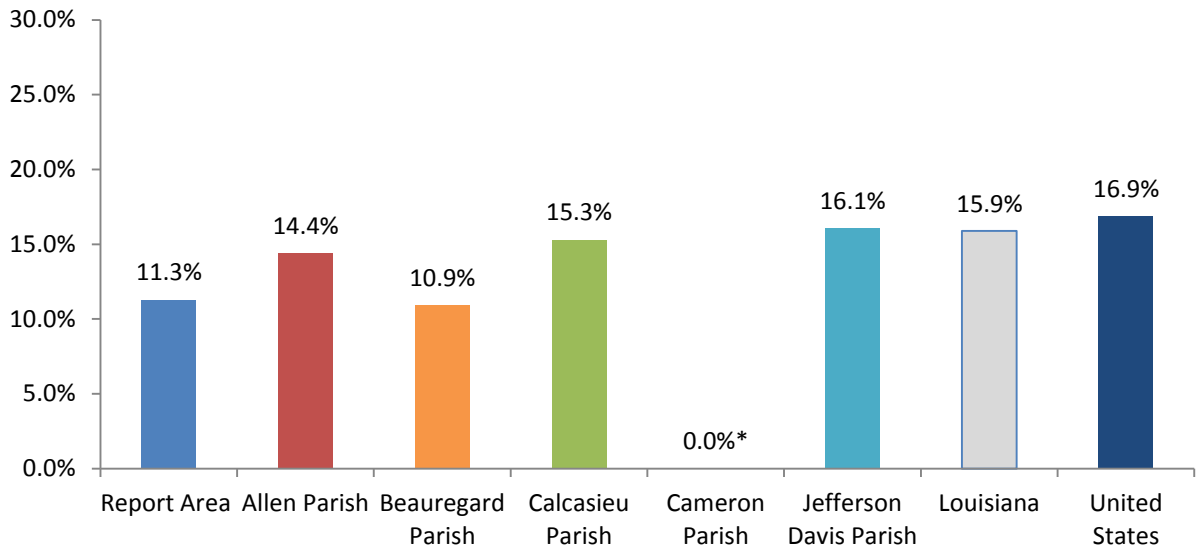
The Substance Abuse and Mental Health Services Administration (SAMSHA) 2013 National Survey of Drug Use and Health reported that 24.6 million individuals 12 years or older were current illicit drug users at the time of survey admission. The most commonly used drug in the U.S. is marijuana with 19.8 million users in 2013 compared to 14.5 in 2007. Additionally, more than one-half of Americans aged 12 or older were current alcohol users in 2013. In 2013, 22.7 million individuals aged 12 or older needed treatment for an illicit drug or alcohol problem; however, only 2.5 million received treatment in a specialty facility.[24]

National data showed that residents in Jefferson Davis Parish (16.1 percent) aged 18 and older are heavy alcohol consumers; this is higher than the state (15.9 percent) and slightly lower than the nation (16.9 percent). Of the available data, Beauregard Parish showed the lowest percentage of residents 18 and older who are heavy drinkers (See Graph 11).

This indicator is relevant because current behaviors are determinants of future health and this indicator may illustrate a cause of significant health issues, such as cirrhosis, cancers, and untreated mental and behavioral health needs. A heavy drinker is considered to have more than 2 drinks a day for men; 1 or more drinks a day for women).

[24] Substance Abuse and Mental Health Services Administration: http://www.samhsa.gov/data/sites/default/files/NSDUHresultsPDFWHTML2013/Web/NSDUHresults2013.htm#ch2

Graph 11: Alcohol Consumption (% of Adults 18 and Older who are Heavy Drinkers)



Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System

Among health providers 11.6% of survey respondents also reported substance abuse as being a risky behavior in their community.

According to community leaders, substance abuse is a growing problem in the region. Community leaders see prescription drug abuse, along with an increased use of heroin and synthetic drugs, as an emerging and growing problem. It was reported that community leaders see heroin addiction becoming prevalent among middle-class, Caucasian residents and the reasons for the increased use was not clearly understood. However, it was stated that residents who are unable to seek employment and maintain a steady source of income often fall victim to the use of illegal drugs, increased use of alcohol, and tobacco.

While information on the effects of smoking has been well-publicized and promoted through many media outlets, many residents continue to smoke cigarettes; with electronic cigarettes becoming popular as well. Community residents living in a poor environment with few educational opportunities and employment prospects often feel overwhelmed and compensate with poor health behaviors.

Community residents dealing with mental health issues and substance abuse problems will face additional barriers such as limited accessibility to mental health providers. Behavioral health issues left untreated will lead and manifest itself into larger health problems. Partnerships and collaboration with regional organizations and implementing a collaborative care model would have a great impact for those afflicted.

C) Health Behaviors

Positive healthy habits such as following a nutritious diet, physical activity, managing one's stress levels, taking vitamins, and having strong sleeping habits can have a significant effect on and influence one's overall health – both physically and mentally. Engaging in long-term healthy behaviors can ensure the possibility of having a strong healthy mind and body. Most importantly, practicing healthy behaviors ensures that chronic diseases such as type 2 diabetes, heart disease, high blood pressure, etc. are reduced.

A permanent change in lifestyle can be managed if changes can be achieved through behavioral, psychological, and dietary changes.

Smoking

Most people begin smoking as teens as a rite of passage, pressure from their peers, and overall societal pressures. For adults, smoking may reduce stress in their lives. For many reasons, smoking is a very difficult habit to break.

Tobacco is one of the largest public health epidemics worldwide. It is reported that tobacco kills 6 million people a year. More than 5 million of those deaths are the result of direct tobacco use while more than 600,000 of those deaths are the result of nonsmokers being exposed to secondhand smoke.[25] Nearly 80 percent of the more than 1 billion smokers worldwide live in low- and middle-income countries, where tobacco-related illnesses and deaths are the greatest.[26] An individual who dies prematurely from tobacco use deprives families of needed income, increases the cost of health care, and places great strain on families who are typically struggling to meet daily living expenses.

While public health efforts have pushed facilities such as restaurants, bars, and businesses to ban smoking due to secondhand smoke, the effects are still long-lasting for those who are nonsmokers. Since 1964, approximately 2.5 million nonsmokers have died from health problems caused by exposure to secondhand smoke.[27]

Secondhand smoke in children can cause an array of health problems such as: ear infections, more frequent and severe asthma attacks, respiratory symptoms, respiratory infections, and greater risk of sudden infant death syndrome (SIDS). Secondhand smoke in adults can cause heart disease, lung cancer, and strokes. It is estimated that secondhand smoke caused nearly 34,000 heart disease deaths each year during 2005–2009 among adult nonsmokers in the U.S. Additionally, secondhand

[25] World Health Organization: http://www.who.int/mediacentre/factsheets/fs339/en/
[26] Ibid.
[27] Centers for Disease Control and Prevention: http://www.cdc.gov/tobacco/data_statistics/fact_sheets/secondhand_smoke/general_facts/

smoke exposure caused more than 7,300 lung cancer deaths each year during 2005–2009 among adult nonsmokers in the U.S.[28]

Smoking rates dropped among U.S. adults from 20.9 percent in 2005 to 17.8 percent in 2013.[29] Clearly, public health awareness efforts and health education on the long-term effects of tobacco, the financial cost of smoking, and the overall health cost due to smoking have resonated with citizens.

Source: Centers for Disease Control and Prevention

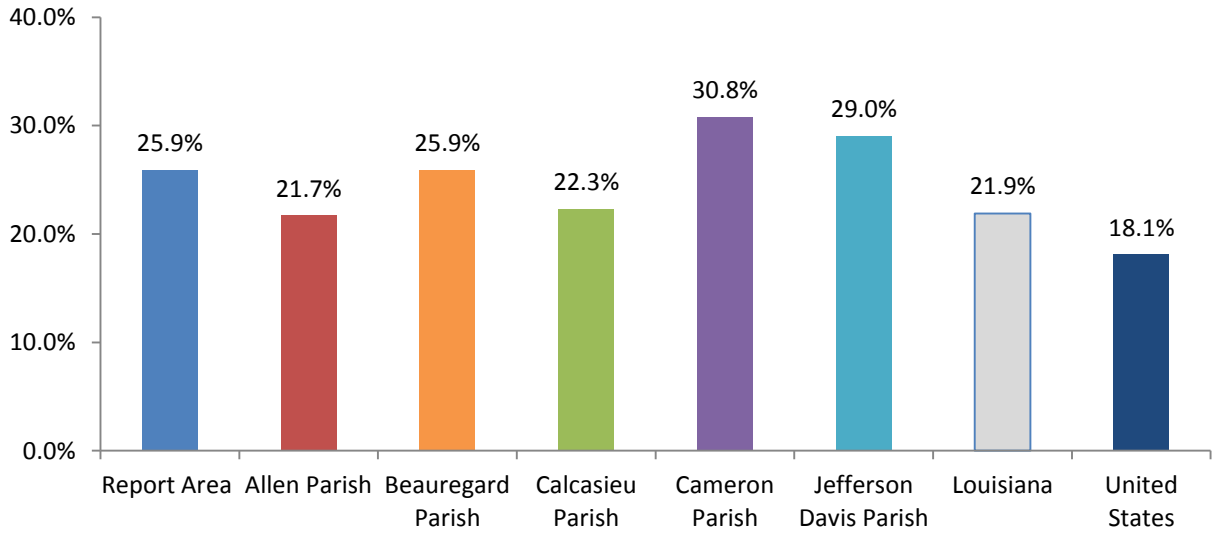
While smoking rates have dropped it is still vastly popular among certain groups within the U.S. Unfortunately, smoking is popular among residents who live below the poverty level, those who have less education, Americans of multiple race, American Indians/Alaska Natives, males, those who live in the South or Midwest, those who have a disability or limitation, and those who are lesbian/gay/bisexual.[30] It is important to continue to provide health education, information, and assistance to those who are current smokers and those who need help quitting.

Smoking affects almost every organ in the body and some effects are felt almost immediately. Smoking not only causes lung cancer but also increases the risk for cancers of the mouth, larynx, pharynx, esophagus, kidney, cervix, liver, bladder, pancreas, stomach, colon/rectum, and myeloid leukemia.[31] Quitting smoking will likely decrease the risks of being diagnosed with cancer and nonsmokers should be more aware of secondhand smoke and eliminate their exposure.

[28] Ibid.
[29] Ibid.
[30] Centers for Disease Control and Prevention: http://www.cdc.gov/media/releases/2014/p1126-adult-smoking.html
[31] American Cancer Society: http://www.cancer.org/cancer/cancercauses/tobaccocancer/health-risks-of-smoking-tobacco

In analyzing data from The Centers for Disease Control and Prevention, it was reported that nearly one-third of adults 18 years old and older in Cameron Parish (30.8 percent) and Jefferson Davis Parish (29.0 percent) are current smokers. The percentages in these two parishes are higher than the state (21.9 percent) and the nation (18.1 percent). Calcasieu Parish residents (22.3 percent) also report higher percentages of current smokers when compared to the state and the nation (See Graph 12).

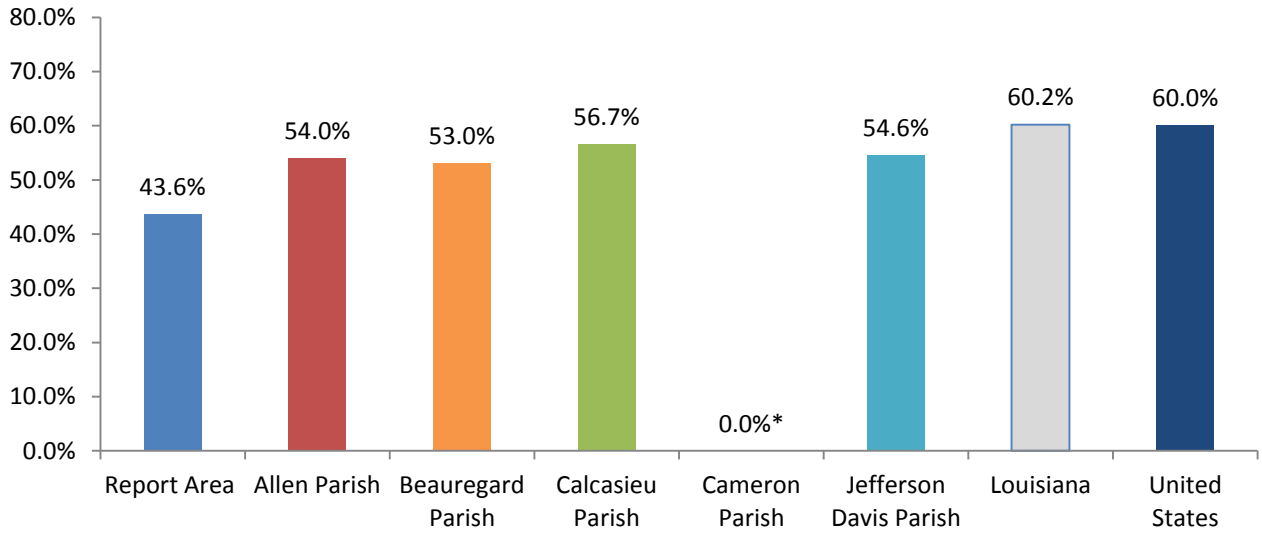
Graph 12-: Tobacco Use (Percent of Adults 18 and Older who are Current Smokers)



Source: Centers for Disease Control and Prevention

As tobacco usage becomes a habit it has been well-document that quitting successfully is a significant challenge for many; however, it is encouraging to see tobacco users who are trying to quit. Data showed there are more residents in Calcasieu Parish who have attempted to quit using tobacco when compared to the remaining parishes. More than one-third of residents (43.6 percent) in the report area (the average of all parishes combined) have attempted to quit. This measure is applicable because tobacco use is linked to leading causes of death such as cancer and cardiovascular disease and it is imperative to support efforts to quit smoking and increase positive health outcomes (See Graph 13).

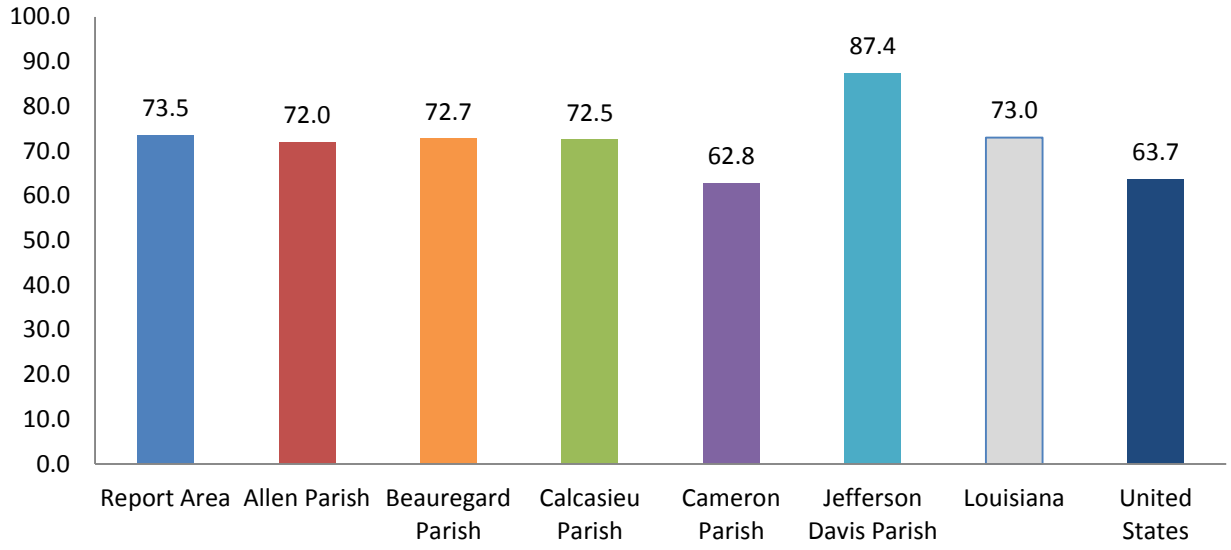
Graph 13: Tobacco Usage/Attempt to Quit



Note: Data for Cameron Parish was unavailable
Source: Centers for Disease Control and Prevention

Data regarding incidence rates shows Jefferson Davis Parish reported having the highest rate of residents with lung cancer (87.4 per 100,000 per population) compared to the remaining parishes in the study area; this rate is also higher than the state (73.0) and the nation (63.7). The overall report area reported 73.5 (per 100,000 population) community residents diagnosed with lung cancer (Graph 14).

Graph 14: Lung Cancer Incidence (Rate per 100,000 Population 2000; Age-adjusted)



Source: National Institutes of Health

According to the Centers for Disease Control and Prevention (CDC), tobacco use is started and established primarily during adolescence. Nearly 9 out of 10 cigarette smokers first tried smoking by age 18, and 99 percent first tried smoking by age 26. Everyday, more than 3,200 youth aged 18 years or younger smoke their first cigarette, and an additional 2,100 youth and young adults become daily cigarette smokers.[32]

While cigarette smoking has declined among youths in recent years the use of other tobacco related products has increased. From 2011 to 2015, the use of hookahs increased among middle and high school students with 2 of every 100 middle school students (2.0 percent) reported in 2015 that they had used hookah in the past 30 days—an increase from 1.0 percent in 2011. Amongst high school students roughly 7 of every 100 high school students (7.2 percent) reported in 2015 that they had used hookah in the past 30 days—an increase from 4.1 percent in 2011. It was reported that nearly 2 of every 100 middle school students (1.8 percent) reported current use of smokeless tobacco; while 6 of every 100 high school students (6.0 percent) reported current use of smokeless tobacco products in 2015.[33] The

[32] Centers for Disease Control and Prevention: http://www.cdc.gov/tobacco/data_statistics/fact_sheets/youth_data/tobacco_use/index.htm
[33] ibid

data presented in the preceding paragraphs highlights disturbing statistics related to youth and smoking and emphasizes the need for additional prevention programs and measures.

Examining primary data, health providers suggested that the three riskiest behaviors community residents engage in are: poor eating habits (24.0 percent), lack of exercise (18.0 percent), and tobacco use (16.2 percent). It is interesting to note that out of 13 risky behavior options from the survey, tobacco use was listed as the third top response. Hand-survey results taken directly from community residents reported that 15.0 percent of respondents currently smoke, while more than one-third of respondents previously smoked but have since quit (35.0 percent).

Community leaders who were interviewed indicated that while information on the effects of smoking have been well-publicized and promoted through many media outlets, many residents continue to smoke cigarettes; with electronic cigarettes becoming popular. They noted that community residents living in a poor environment with few educational opportunities and employment prospects often feel overwhelmed and compensate with poor health behaviors.

Smoking Prevention

Prevention programs and resources to assist smokers ready to quit are available in the community. There are local support groups as well as health education material and information at many health care institutions and organizations for community residents to utilize. Quitting and breaking the smoking habit in many cases requires a team/family effort. Support from family, encouragement from friends and health care providers will create new learning skills and change behaviors in order to eliminate difficult situations were tobacco was utilized. Having positive outlets to focus on and understanding why quitting is important is essential within the first several weeks of trying to break the habit.

Cigarette cravings and withdrawal symptoms are daily struggles. Creating a rewards structure and setting daily goals will provide continuity and framework to help cope with the daily challenges. Changing and altering negative behaviors is a challenge but a healthy lifestyle is the ultimate reward.

Over the past several decades smoking has gained national attention, as have the health risks involved. It is important that health and human service agencies/organizations, government, and community leaders lay the foundation to prevent young people from starting smoking. Smoking prevention can be successful if collaborative and partnership efforts are initiated and maintained.

Many of today's youth begin smoking at an early age and unfortunately, those experimenting with smoking are often addicted by the time they are young adults. Societal pressures along with social imagery influence youth to try smoking. Youth smoking can be prevented through the combined efforts of families, schools, communities and policymakers according to the American Lung Association. Parents can set positive examples by not smoking and keeping their homes smoke-free. Schools can provide tobacco prevention programs and tobacco cessation programs to assist those who are already addicted, to quit smoking for good. In addition to local and regional implementation efforts, states can pass

legislation to increase taxes on tobacco products, pass and implement comprehensive smoke free indoor air laws, and limit minors' access to tobacco products.[34]

Local institutions and government involvement can produce healthy partnerships to provide prevention programs and advocate for funding opportunities for continued programming efforts. Additional work is needed locally to educate, inform, and teach youth about the dangers of smoking and the long-term dangerous effects of tobacco use.

Physical Inactivity and Obesity

Physical inactivity is often defined as individuals not getting the recommended time and level of regular physical activity.

To improve overall cardiovascular health, the American Heart Association (AHA) recommends at least 150 minutes per week of moderate exercise or 75 minutes per week of vigorous exercise (or a combination of moderate and vigorous activity). Thirty minutes a day, five times a week is an easy benchmark to remember. For individuals who would benefit from lowering their blood pressure or cholesterol, the AHA recommends 40 minutes of aerobic exercise of moderate to vigorous intensity three to four times per week to lower the risk of heart attack and stroke.[35] Moderate exercise includes activities such as walking, climbing stairs, gardening, yard work, moderate-to-heavy housework, dancing and home exercise. More vigorous aerobic activities, such as brisk walking, running, swimming, cycling, and jumping rope are some of the best ways to improving the fitness of the heart and lungs.

Obesity is increasing around the world; the worldwide obesity rate has more than doubled since 1980. In 2014, more than 1.9 billion adults, 18 years and older, were overweight. Of these, over 600 million were obese. Worldwide, more than one-third of adults (39.0 percent) aged 18 years and over were overweight in 2014, and 13.0 percent were obese. Most of the world's population lives in countries where overweight and obesity kills more people than those who are underweight. 41 million children under the age of 5 were overweight or obese in 2014.[36]

The most common way to measure whether an individual is overweight or obese is the calculation of body mass index (BMI). BMI is an estimate of body fat; it is often a good gauge to assess risk for diseases that occur with more body fat. BMI is calculated from an individual’s height and weight.

For people who are overweight or obese, losing weight requires a change in lifestyle. Dietary changes are difficult to achieve and even more of a challenge to maintain. There are a variety of strategies and methods which can assist those who are looking to lose weight; however, an essential part of those changes includes the incorporation of a healthy diet and physical activity.

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[34] American Lung Association: http://www.lung.org/stop-smoking/smoking-facts/kids-and-smoking.html
[35] American Heart Association: http://www.heart.org/HEARTORG/HealthyLiving/PhysicalActivity/FitnessBasics/American-Heart-Association-Recommendations-for-Physical-Activity-in-Adults_UCM_307976_Article.jsp#.V6t695grKUk
[36] World Health Organization: http://www.who.int/mediacentre/factsheets/fs311/en/

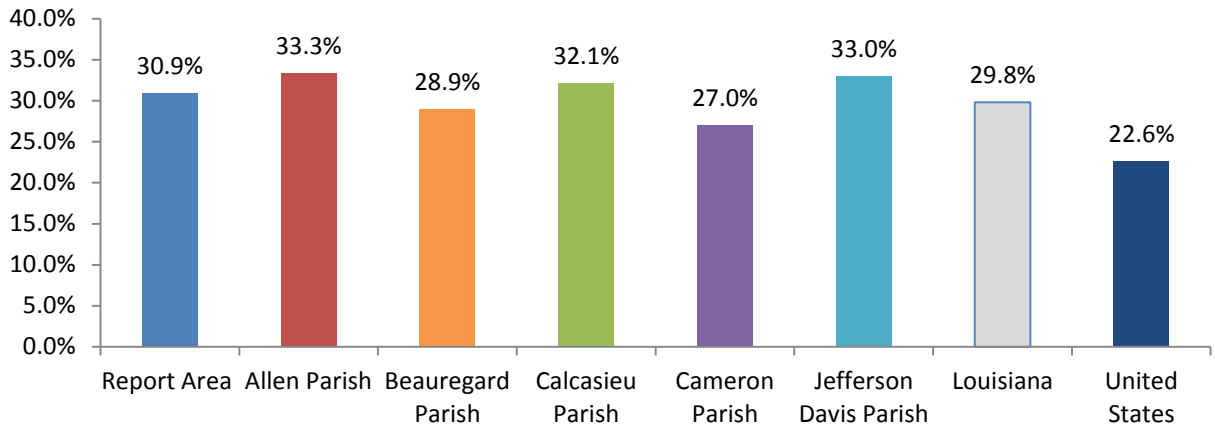
Physical Inactivity

The physical inactivity indicator provides insight into current behaviors that are determinants of future health, and can cause significant health issues, such as obesity and poor cardiovascular health. Physical activity is important to prevent heart disease and stroke, two of the leading causes of death in U.S. In order to improve overall cardiovascular health, the frequency along with how vigorous the exercise is needs to be met.

Approximately one-third of adults in Allen (33.3 percent), Calcasieu (32.1 percent), and Jefferson Davis (33.0 percent) Parishes aged 20 and older reported no leisure time activity, based on the question: "During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise." (See Graph 15).

Only two parishes, Beauregard (28.9 percent) and Cameron (27.0 percent), reported lower rates than the state (29.8 percent). None of the parishes were lower than the national rate of 22.6 percent regarding physical inactivity (See Graph 15).

Graph 15: Physical Inactivity (% of Adults 20 and Older with no Leisure Time Physical Activity)



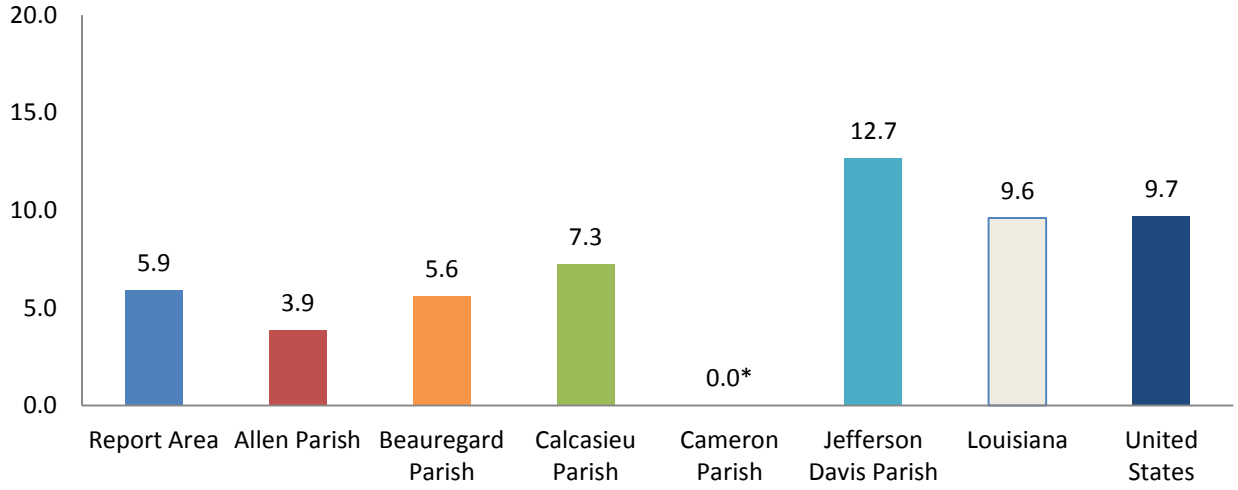
Source: Centers for Disease Control and Prevention

The below indicator reports the number per 100,000 population of recreation and fitness facilities as defined by North American Industry Classification System (NAICS) Code 713940. This indicator is relevant because access to recreation and fitness facilities encourages physical activity and other healthy behaviors.

The number of available recreational facilities in the region can assist community residents who are trying to achieve a healthy lifestyle. Exploring the availability of such facilities in the community, it was reported that there is more accessibility in Jefferson Davis Parish (12.7 per 100,000 population) when compared to the remaining parishes; this rate is higher than the state (9.6) and the nation (9.7). Unfortunately, Calcasieu Parish (7.3 per 100,000 population) has fewer numbers of recreation and fitness facilities when compared to the state (9.6 per 100,000 population) and the nation (9.7 (per

100,000 population) (See Graph 16). With close to one-third of Calcasieu residents not engaging in any type of physical activity (32.1 percent; see previous graph), options to provide more fitness facilities to the community should be explored.

Graph 16: Recreation and Fitness Facility Access (Rate per 100,000 Population)



Note: No data was available for Cameron Parish
Source: US Census Bureau, County Business Patterns

Leading a healthy lifestyle includes participating in physical activity as well as eating a healthy diet. Existing behaviors are determinants of future health outcomes and because unhealthy eating habits may cause significant health issues, such as obesity and diabetes, it is important to note the frequency in which residents in Southwest Louisiana are engaging in healthy dietary behaviors.

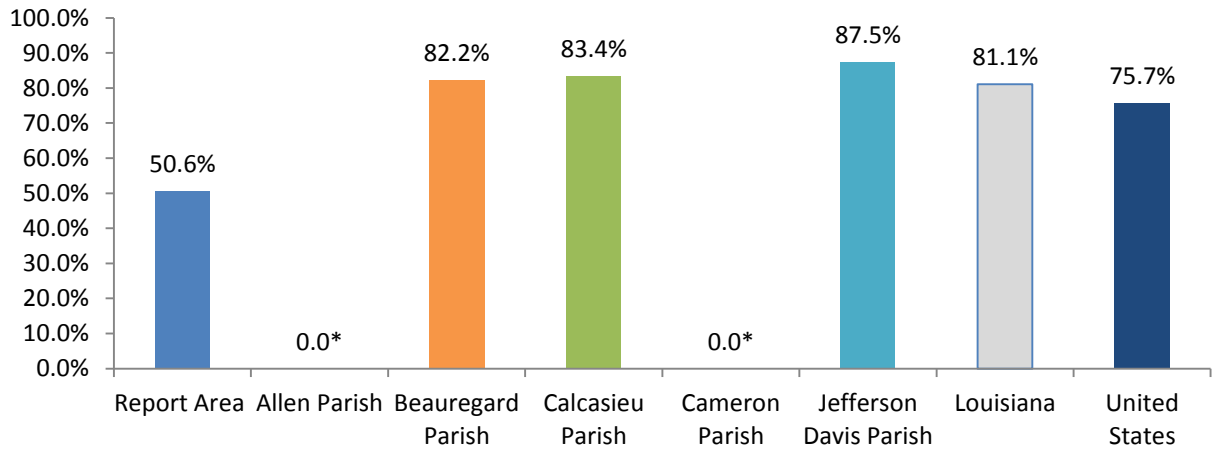
The CDC reported that more than three-fourths of adults over the age of 18 in Beauregard (82.2 percent), Calcasieu (83.4 percent), and Jefferson Davis (87.5 percent) Parishes consume less than 5 servings of fruits and vegetables each day. Unfortunately, these rates are higher than the state (81.1 percent) and the nation (75.7 percent) (See Graph 17).

The Dietary Guidelines' Key Recommendations for healthy eating includes: a variety of vegetables, fruits, grains (whole grains), fat-free or low-fat dairy (milk, yogurt, cheese, and/or fortified soy beverages), a variety of protein foods (seafood, lean meats and poultry, eggs, legumes (beans and peas), and nuts, seeds, and soy products), and oils.[37]

[37] Healthy Government: https://health.gov/dietaryguidelines/2015/guidelines/executive-summary/

The guidelines also recommended a healthy diet that limits saturated fats, trans fat, sugars, and sodium.

Graph 17: Fruit/Vegetable Consumption (% of Adults 18 and Older with Inadequate Consumption)



Note: No data was available for Allen and Cameron Parishes
Source: Centers for Disease Control and Prevention

Health providers who responded to the health survey cited poor eating habits (24.0 percent), lack of exercise (18.0 percent), and tobacco use (16.2 percent) as the top risky behaviors in the community where they provide care and services. Hand-survey respondents reported that obesity (the 5th ranked concern at 6.7 percent) was a top health concern in their community.

Community leaders discussed the role and connection between health education, obesity, and chronic diseases. Lake Charles residents do not make healthy living a priority because they are unaware of the connection between health behaviors and chronic conditions. Nutrition and physical activity are not emphasized and reinforced; thus, community residents tend not to participate or engage in exercise, or make it a priority.

Again, residents are often unaware of the long-term effects that poor diet and lack of exercise have on health outcomes. According to community leaders, the cultural and generational influences of the service area are such that residents do not make healthy living a priority. It was reported that southern cooking often consists of deep-fried, heavy cream-based, salty, and buttery dishes and cooking within these standards is considered acceptable. In order to combat the rising number of overweight and obese adults, many residents must alter their lifestyle. Open conversations among adult residents regarding healthy food choices are non-existent and are often met with hesitation. Understanding nutrition as part of health education can begin at a young age as children are often more receptive to change; however, healthy habits must also be practiced at home.

Regular physical activity is important to overall good health. Physical activity helps reduce the risk of cardiovascular disease, high blood pressure, type 2 diabetes, heart attack, stroke, several forms of

cancer, arthritis pain and associated disability, osteoporosis and falls, and reduces symptoms of depression and anxiety.[38]

Incorporating physical activity has many health benefits; in particular to counteract the effects of living a sedentary lifestyle.

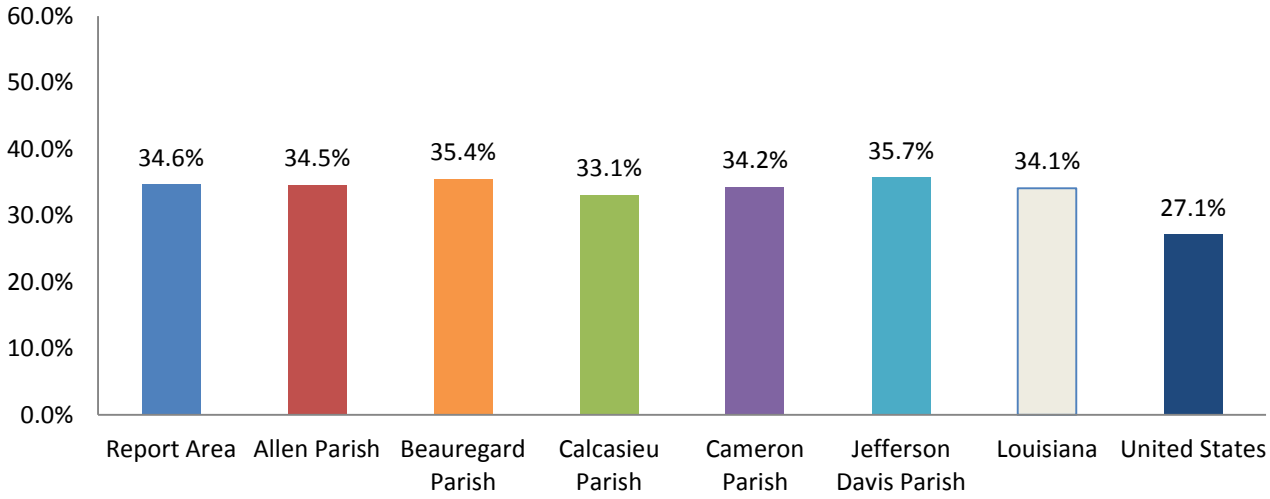
Obesity

Today, people are consuming more foods than in previous generations. The consumption of vast amounts of calories, in addition to a sedentary lifestyle, ensures that an individual will eventually become overweight or obese.

Data from the CDC reported that 34.3 percent of adults in the U.S. were overweight, with a body mass index (BMI) of 25-29.9; while 27.1 percent of U.S. adults were obese, with a BMI of 30 or greater.

Exploration of the parishes revealed that roughly one-third or more of all residents in the study area have higher percentages of obese people when compared to the nation (27.1 percent). The overall report area (34.6 percent) average also denotes higher percentages of obese people when compared to the state (34.1 percent) (See Graph 18).

Graph 18: Obesity

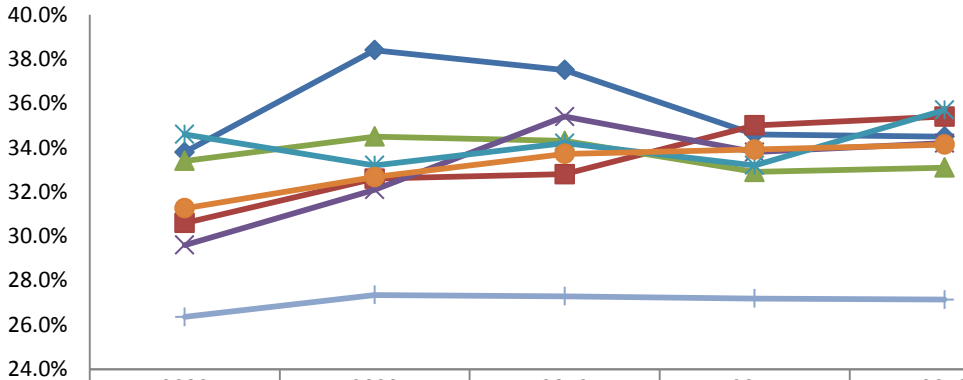


Source: Centers for Disease Control and Prevention

[38] Centers for Disease Control and Prevention: http://www.cdc.gov/healthyweight/physical_activity/index.html

The percent of obese U.S. residents remained the same in years 2010-2012; unfortunately, the percentage of obese residents in Louisiana continues to rise. The information below showed a significant increase of obese residents in Allen Parish between 2008 and 2009; eventually dropping in 2010 (See Graph 19).

Graph 19: Obesity (BMI > 30.0 Years 2008 through 2012)



	2008	2009	2010	2011	2012
Allen Parish	33.8%	38.4%	37.5%	34.6%	34.5%
Beauregard Parish	30.6%	32.6%	32.8%	35.0%	35.4%
Calcasieu Parish	33.4%	34.5%	34.3%	32.9%	33.1%
Cameron Parish	29.6%	32.1%	35.4%	33.8%	34.2%
Jefferson Davis Parish	34.6%	33.2%	34.2%	33.2%	35.7%
Louisiana	31.3%	32.7%	33.7%	33.9%	34.1%
United States	26.4%	27.4%	27.3%	27.2%	27.1%

Source: Centers for Disease Control and Prevention

Primary data reported that the three most pressing health problems in the community according to health providers are diabetes (19.1%), obesity (17.0%), and heart disease /stroke (14.9%).

Community leaders have cited obesity as a health problem that has grown worse over the past several decades, plaguing many communities - small, large, urban, and rural - throughout the U.S. This epidemic is having detrimental effects on the health and well-being of residents in Lake Charles with increasing rates of high blood pressure, heart disease, and diabetes, etc. Changing health behaviors into positive health outcomes requires community residents to be armed with health education in order to modify their current living habits.

The ability to shape and mold policy can be made with support from local and state government. Strategies to create safe, active environments to make walking and cycling safer, building schools and shops within walking distance of neighborhoods, and improving public transportation can add appeal to

communities whose goal is to be active. Such changes are essential to making physical activity an integral and natural part of people's everyday lives and ultimately, to reverse the obesity epidemic.[39]

While public awareness has increased and millions of dollars are being spent to combat the disease and encourage people to eat healthy, continued reinforcement creates additional opportunities for organizations and health institutions to collaborate and continue partnership efforts towards healthy eating.

Access to Healthy Foods

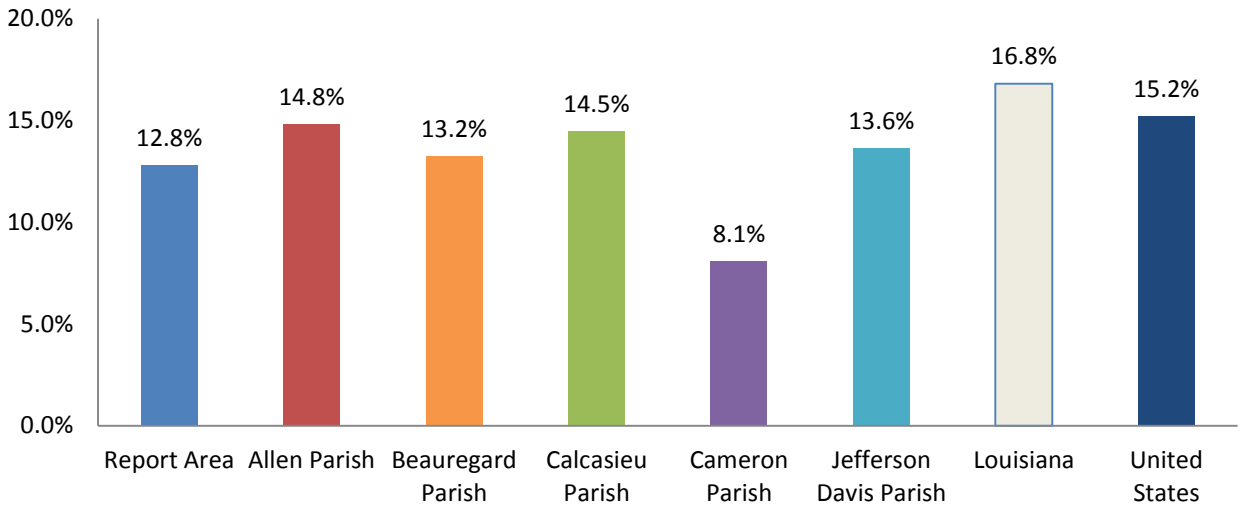
At one point in time, obesity was a relatively uncommon disease amongst the world's population; however, in more recent times, it has become a growing problem as it continues to rise to prominence throughout the world. Many factors contribute to the obesity rate among adults and children. Such factors have come to include: personal behaviors, environmental factors, socioeconomic factors, and genetics.

Food insecurity is the most broadly-used measure of food deprivation in the U.S. The United States Department of Agriculture (USDA) defines this as meaning "consistent access to adequate food is limited by a lack of money and other resources at times during the year." Each year, more food enters the American menu that includes an abundance of food saturated in fats, high in sugar content, and is highly processed. Unfortunately, this type of food is often cheap and abundant within the market. As a result, low-income and economically challenged populations face food insecurity in their life, which prohibits them from following a healthy diet.

Exploring data obtained from Feed America during the 2013 study year, the estimated food security percentages for parishes in Lake Charles can be found in Graph 20. Of the total parishes, it was reported that residents in Allen Parish (14.8 percent) and Calcasieu Parish (14.5 percent) have the highest percentage of residents who have food insecurity when compared to the remaining parishes. Cameron Parish reports the lowest rate of food security at 8.1 percent. However, it is important to note that all of the parishes found in the Lake Charles service area have lower rates of food security than that of the state (16.8 percent) and the nation (15.2 percent).

[39] Harvard School of Public Health: https://www.hsph.harvard.edu/obesity-prevention-source/obesity-causes/physical-activity-and-obesity/

Graph 20: Food Insecurity



Source: Feeding America 2013

SNAP, Supplemental Nutrition Assistance Program, is a federal nutrition program that helps families with their food budget – and is formerly known as food stamps. SNAP benefits can be used to purchase food at grocery stores, convenience stores, and some farmers' markets and co-op food programs.[40] The program offers nutritional assistance to millions of eligible, low-income individuals and families and provides economic benefits to communities.

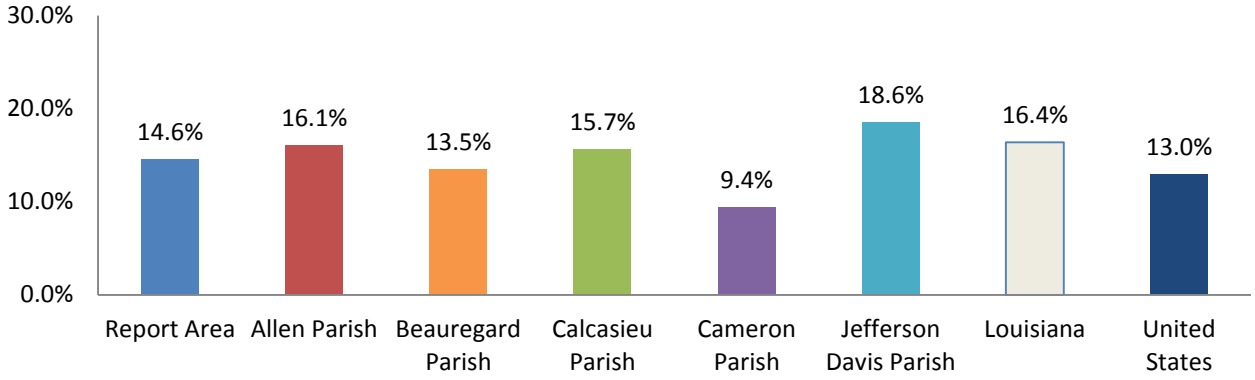
In many cases, families who receive SNAP benefits often select cheaper foods that are not as nutritional as other options such as fresh fruits and vegetables. Food that spoils quickly often has greater health benefits from consumption, but a high price for purchase. Families with higher incomes have the financial opportunity to purchase healthy food options and are also typically more aware of the benefits of eating a healthy diet.

Information regarding vulnerable populations shows that residents in this population are more likely to have multiple health access, health status, and social support needs. When combined with poverty data, providers can use these measures to identify gaps in eligibility and enrollment.

Data reported by U.S. Census Bureau, indicates that residents in Jefferson Davis Parish have a higher concentration of SNAP beneficiaries (18.6%), than those compared in the remaining parishes, the state (16.4%) and the nation (13.0%) (Graph 21).

[40] Food and Nutrition Service: http://www.fns.usda.gov/snap/supplemental-nutrition-assistance-program-snap

Graph 21: Population Receiving SNAP Benefits

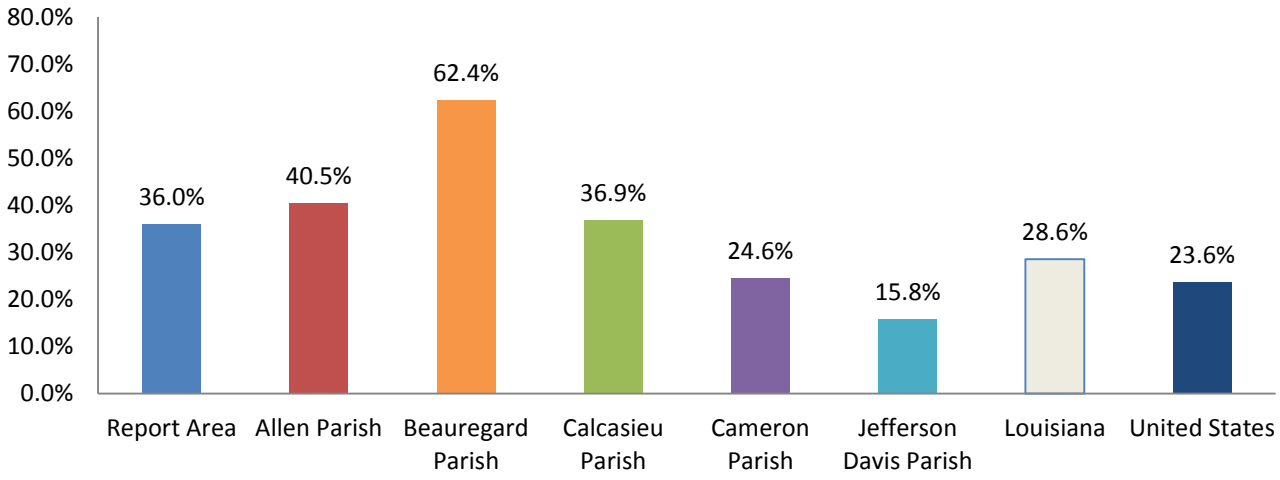


Source: U.S Census Bureau

Low food access indicates the percentage of the population living in census tracts designated as food deserts. A food desert is defined as a low-income census tract (where a substantial number or share of residents has low access to a supermarket or large grocery store). This indicator is relevant because it highlights populations and geographies facing food insecurity.

Data revealed Beauregard Parish (62.4 percent) has the highest percentage of residents with low food access when compared to the rest of the parishes; this rate is higher than the state (28.6 percent) and the nation (23.6 percent). Additionally, this data point coincides with 13.2 percent of Beauregard residents who also face food insecurity. More than one-third of residents in Calcasieu Parish (36.9 percent) reported low food access in 2010 (See Graph 22).

Graph 22: Low Food Access



Source: US Department of Agriculture 2010

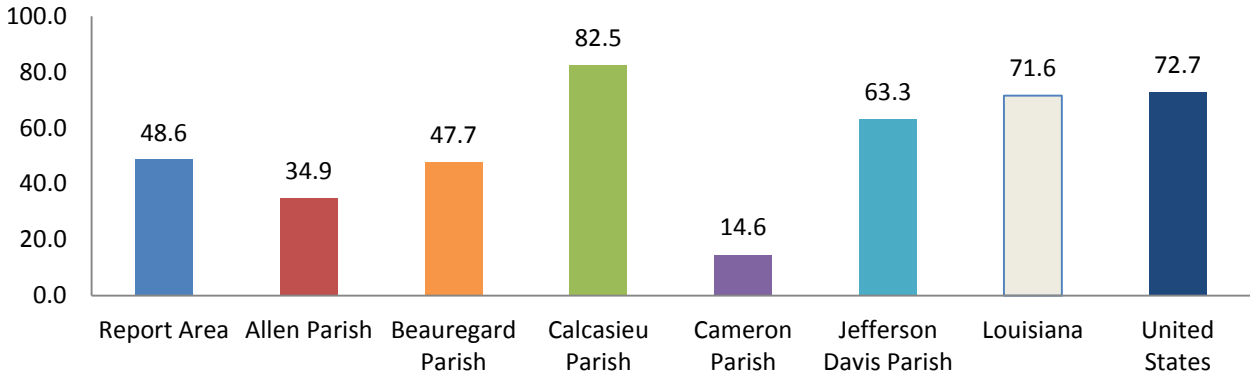
Access to healthy foods coincides with access to affordable healthy foods. One of the main reasons healthy foods are more expensive is due to demand. Americans prefer and demand more unhealthy foods than healthy foods; such as fresh produce, seafood, and whole grains. Food manufacturing companies manufacture what the population demands, which results in poor, highly processed junk foods. The implosion of available fast foods restaurants providing cheap, unhealthy food options also contributes to the obesity epidemic. Eating a healthy, home-cooked dinner is slowly fading from the American dining tradition. Instead, families are opting for the cheaper, and often unhealthy, alternative of local, fast food restaurants, which allows for working families to consume a quick meal.

Changing this supply and demand scenario requires a modification of negative behaviors, and instead an emphasis and reinforcement of positive behavior. These changes will not occur overnight; however, reinforcing positive attitudes will result in healthier communities.

Fast food restaurants are defined as limited-service establishments primarily engaged in providing food services (except snack and nonalcoholic beverage bars) where patrons generally order or select items and pay before eating. This indicator is relevant because it provides a measure of healthy food access and environmental influences on dietary behaviors.

Examining data related to the availability of fast food restaurants, it was reported that Calcasieu Parish (82.5 per 100,000 population) had the most fast food restaurants in the area when compared to the remaining parishes. Cameron Parish showed the lowest rate of fast food restaurants when compared to the rest of the parishes at 14.6 per 100,000 population; this rate is lower than the state (71.6 per 100,000 population) and the nation (72.7 per 100,000 population) (See Graph 23).

Graph 23: Fast Food Restaurants (Rate per 100,000 Population)



Source: U.S. Census Bureau

Geography plays a role in how accessible healthy foods are for community residents. Living in rural or urban areas, where healthy foods are limited due to unavailable grocery stores and supermarkets, is an accessibility issue. Evidence showed that people who have access to supermarkets tend to consume

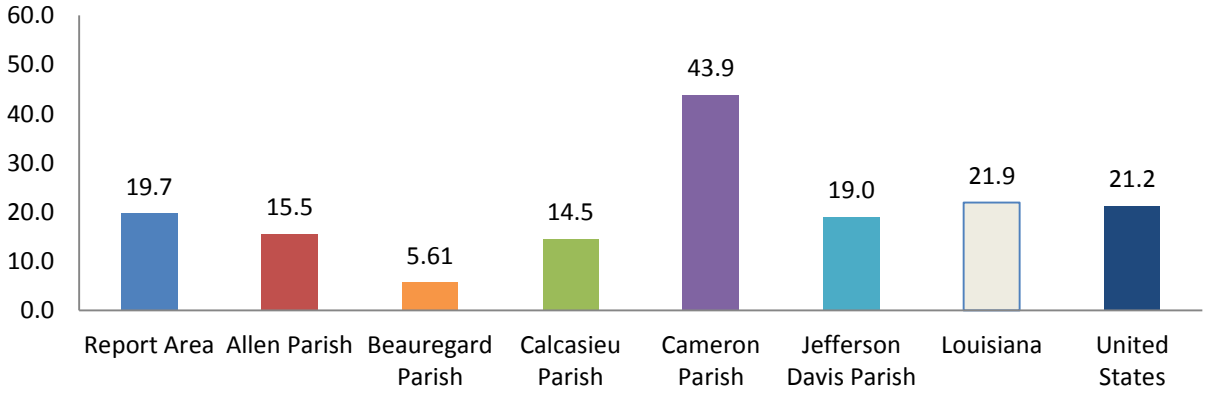
more fruits and vegetables – as well as have a lower risk for obesity.[41] Information from the Robert Wood Johnson Foundation indicated that supermarkets and supercenters provide reliable access to nutritious and affordable produce, and their presence is an important indicator of a community's physical health and economic vitality.

In 2014, the Pennsylvania Fresh Food Financing Initiative (FFFI)[42] pioneered a statewide program offering grants and loans to supermarket developers to build stores in underserved communities, making it easier for an estimated 500,000 residents to find healthier food in their communities.[43] The federal government is now funding similar projects across the country through the U.S. Departments of Treasury, Agriculture, and Health and Human Services.[44]

The data below report information regarding grocery store accessibility. Grocery stores are defined as supermarkets and smaller market stores primarily engaged in retailing a general line of food, such as canned and frozen foods; fresh fruits and vegetables; and fresh and prepared meats, fish, and poultry – also included are delicatessen-type establishments. Also, convenience stores and large general merchandise stores that retail food, such as supercenters and warehouse club stores, are excluded. This indicator is relevant because it provides a measure of healthy food access and environmental influences on dietary behaviors.

Data showed that there are a significantly higher number of grocery stores in Cameron Parish (43.9 per 100,000 population) when compared to the remaining parishes, the state (21.9), and the nation (21.2). The availability of grocery stores in Calcasieu Parish is 14.5 per 100,000 population; this rate is lower than the state and the nation (See Graph 24).

Graph 24: Grocery Stores (Rate per 100,000 Population)



Source: U.S. Census Bureau

[41] Robert Wood Johnson Foundation: http://www.rwjf.org/en/library/research/2012/12/do-all-americans-have-equal-access-to-healthy-foods-.html
[42] Healthy Food Access Portal: http://www.healthyfoodaccess.org/policy-efforts-and-impacts/state-and-local/pennslvania
[43] Robert Wood Johnson Foundation: http://www.rwjf.org/en/library/research/2012/12/do-all-americans-have-equal-access-to-healthy-foods-.html
[44] Ibid.

Purchasing healthy foods is a challenge for many, oftentimes, is it not an option due to socioeconomic factors, geography, and transportation barriers, etc. While healthy foods are expensive, the long-term effects of eating and following a healthy will lessen the physical health care damage on the body. Policy makers, government entities along with community groups and organizations need to provide viable solutions and address the challenges community residents face accessing heathy foods.

Health Education and Knowledge

Health education[45] is any combination of learning experiences designed to help individuals and communities improve their health, by increasing their knowledge or influencing their attitudes.[46] Building upon community residents' knowledge, health education can shape their skills, and provide positive attitudes about health. It educates on subjects such as mental, physical, emotional and social health. Information from health education motivates individuals to improve and maintain their health, prevent disease, and reduce risky behaviors. Most importantly, health education information helps individuals make healthy lifetime decisions regarding diet, alcohol, tobacco, exercise, and prevention of diseases, etc.

Community stakeholders recommended that organizations encourage residents to seek and obtain health education information in order to be aware of the importance of preventative health screenings – as well as assist in understanding the relationship between healthy behaviors and health outcomes. Increased health education can also provide community residents with the ability to navigate the health care system, which in turn alleviates the stress that is often associated with seeking care.

It was also reported that health education plays a significantly large role in how residents can lead a healthier lifestyle and improve health outcomes. Health education, specifically concerning diet, exercise, and disease management, is vital to managing health conditions and practicing healthy behaviors. Comprehension of health education materials is also an issue, because many residents do not understand the information being conveyed. Community leaders strongly believe the information must be useful, and must be on a reading scale that is comprehendible and applicable to residents' everyday life in order to be effective. The ultimate goal is to reduce, improve, and modify poor health behaviors.

There are multiple ways health information can be disseminated, and organizations make valiant efforts to provide information to residents. Unfortunately, health education continues to be a roadblock for community residents. Changing health behaviors into positive health outcomes requires community residents to be armed with health education information in order to modify their current living habits.

Health education provides an important role in the promotion of healthy behaviors. While the Lake Charles community and surrounding areas have information for residents, it is important to continue to provide materials at a clear and concise reading level that is understood by many in the region.

[45] Health education within the report refers to health knowledge and education combined.
[46] World Health Organization: http://www.who.int/topics/health_education/en/

D) Health Outcomes

Health outcomes refer to the impact health care activities have on people – their symptoms, ability to do what they want, and whether they live or die. Additionally, these outcomes include whether a given disease gets better or worse, what the costs of care are, and patient satisfaction with the care they receive. It focuses not on what is done for patients, but what results from what is done.[47]

Chronic Diseases

Intervention through therapy, medicine, or lifestyle changes typically alters an individual's health outcome. A chronic disease, as defined by the U.S. National Center for Health Statistics, is a disease lasting three months or longer. About 40 million Americans are limited in their usual activities due to one or more chronic health conditions.[48]

The U.S. National Center for Health Statistics also reported that chronic diseases affect approximately 133 million Americans, which represents more than 40 percent of the total population of the country. By 2020, that number is projected to grow to an estimated 157 million, with 81 million having multiple conditions. About half of all adults have a chronic condition, and approximately 8 percent of children ages 5 to 17 were reported by their parents to have limited activities due to at least one chronic disease or disability. At an increasing rate, people are beginning to live with two or more chronic illnesses, such as diabetes, heart disease, or depression. Today, almost one-third of the American population lives with multiple chronic conditions. In 2009, 7 out of 10 deaths in the U.S. were cause by chronic diseases. Today, diseases such as heart disease, cancer, and stroke account for more than half of all deaths each year.[49]

It is important to review data in the Southwest Louisiana region related to chronic diseases, such as diabetes, heart disease, diabetes, asthma, high blood pressure, and high cholesterol in order to be aware of the afflicted populations.

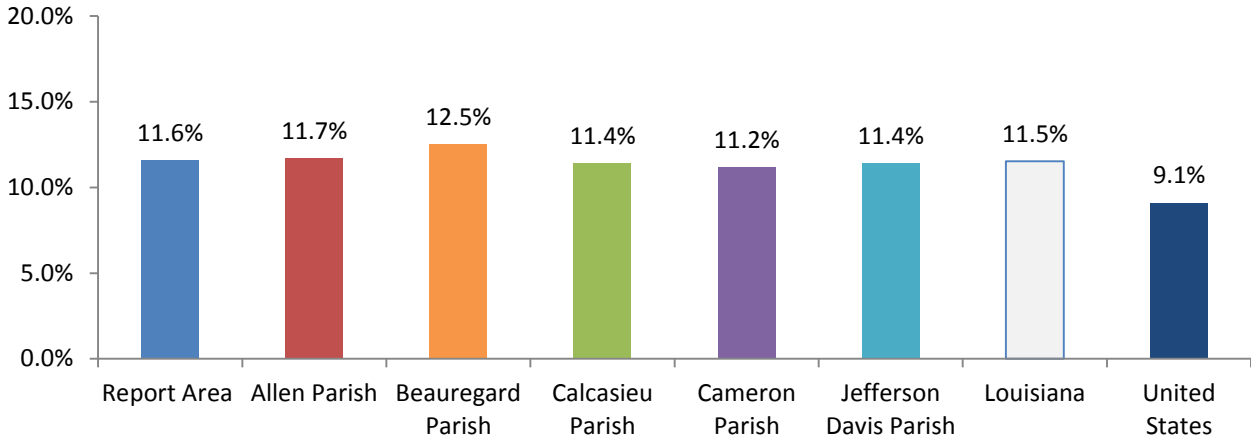
Data revealed that Allen (11.7 percent), Calcasieu (11.4 percent), Cameron (11.2 percent), Jefferson Davis (11.4 percent), the state (11.5 percent), and the nation (9.1 percent) have fewer residents with diabetes compared to Beauregard (12.5 percent) (Graph 25). Examining this data point is important as diabetes is preventable in the U.S. and the disease may indicate an unhealthy lifestyle and puts individuals at risk for further health issues.

According to the CDC, diabetes is the condition in which the body does not properly process food for use as energy. Food is turned into sugar, which in turn is used for energy in the body. The pancreas makes a hormone called insulin to help glucose get into the cells of our bodies. Diabetes either does not make

[47] My Health Outcomes: http://myhealthoutcomes.com/faqs/3000
[48] National Health Council: http://www.nationalhealthcouncil.org/sites/default/files/NHC_Files/Pdf_Files/AboutChronicDisease.pdf
[49] Ibid.

enough insulin or cannot use its own insulin as well as it should. This causes sugars to build up in the blood. Diabetes can cause serious health complications including heart disease, blindness, kidney failure, and lower-extremity amputations. Diabetes is the seventh leading cause of death in the United States.[50]

Graph 25: Adult Diabetes (% of Adults 20 and older who have diabetes)



Source: Centers for Diseases Control and Prevention

Preventing type-two diabetes is doable with guidance and assistance from health care providers, family, and friends; however, most importantly, the change must come from the individual. Diabetes prevention includes eating more healthy foods, being physically active, and losing weight (if needed). Adjusting and modifying one's lifestyle will prevent and avoid serious health complications in the future.

Simple diabetes prevention steps include[51]:

- Becoming more physically active
- Increasing fiber intake,
- Eating whole grains
- Losing extra weight
- Skipping fad diets
- Making healthier choices.

While diabetes is expected to increase amongst the American population, health education and promotion of simple prevention measures can be successfully implemented in the community.

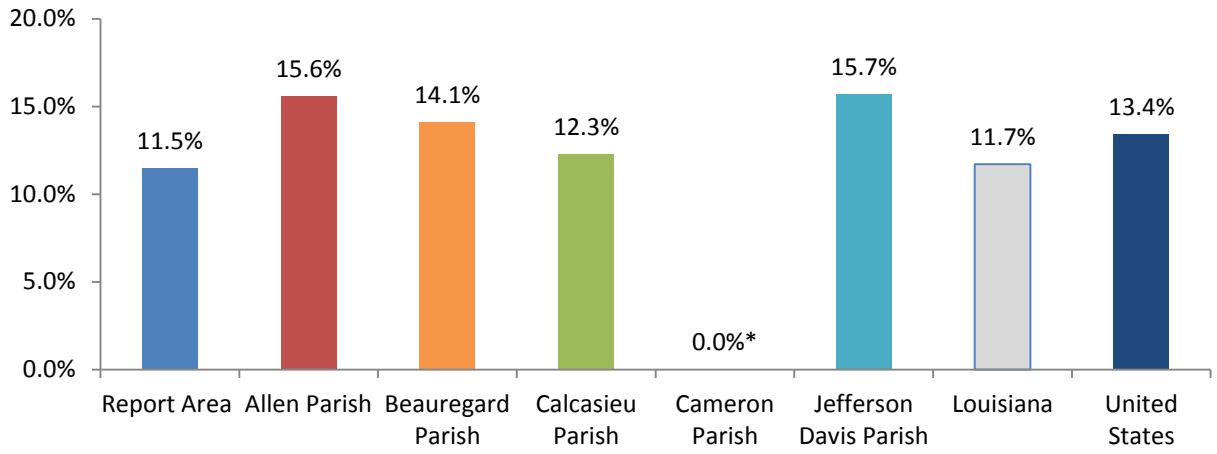
Asthma is a chronic disease that inflames and narrows the airways – as well as, causes chest tightness, wheezing, shortness of breath, and coughing. Asthma affects people of all ages, but most often presents itself during childhood. In the U.S., more than 25 million people are known to have asthma; about 7 million are children[52]

[50] Centers for Disease Control and Prevention: https://www.cdc.gov/media/presskits/aahd/diabetes.pdf
[51] Mayo Clinic: http://www.mayoclinic.org/diseases-conditions/type-2-diabetes/in-depth/diabetes-prevention/art-20047639
[52] National Institutes of Health: http://www.nhlbi.nih.gov/health/health-topics/topics/asthma

Data specific to the study area indicate that residents in Allen (15.6 percent) and Jefferson (15.7 percent) Parishes have higher percentage of adults aged 18 and older who self-reported that they have been told by a doctor, nurse, or other health professional that they had asthma. These percentages are higher than the state (11.7 percent) and nation (13.4 percent) (See Graph 26).

There are more Calcasieu Parish residents (12.3 percent) who reported having asthma then the state (11.7 percent) (See Graph 26). This indicator is relevant because asthma can be exacerbated by poor environmental conditions.

Graph 26: Asthma



Source: Centers for Diseases Control and Prevention

Coronary heart disease (CHD) is a leading cause of death in the U.S.; and is related to high blood pressure, high cholesterol, and heart attacks. CHD is a condition in which plaque builds up inside the coronary arteries. These arteries supply oxygen-rich blood to the heart muscle. When plaque builds up, the condition is called atherosclerosis. If the flow of oxygen to the heart muscle is reduced or blocked, angina or a heart attack can occur. [53]

Some factors such as family history, sex or age cannot be changed; however, prevention steps can be taken to reduce the risk of being diagnosed with heart disease. Prevention measures begin with the overall adoption of a healthy lifestyle which includes: no tobacco use, exercise for about 30 minutes (on a daily basis), adopting a heart-healthy diet, maintaining a healthy weight, receiving quality sleep, managing stress, and obtaining regular health-screenings. Behavior changes can reduce the likelihood of having heart disease. The continued health promotion and education on the disease is needed for those in Southwest Louisiana.

The Lake Charles service area represents a swath of residents who suffer from Coronary Heart Disease. According to results collected from the community survey, residents in Calcasieu Parish (7.4 percent),

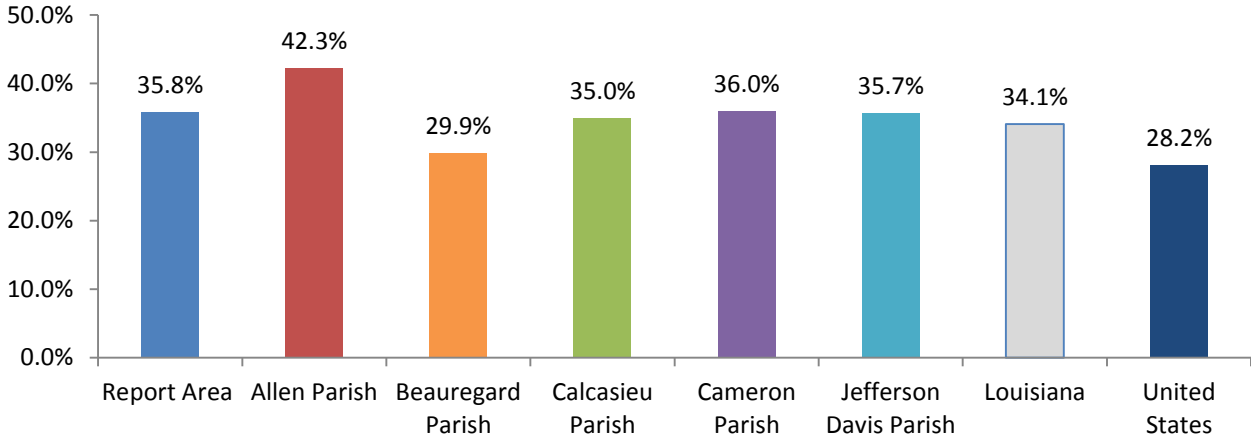
[53] National Institutes of Health: http://www.nhlbi.nih.gov/health/health-topics/topics/cad

aged 18 and older, were told by a doctor that they have coronary heart disease or angina. This rate is higher than the remaining parishes in the study area, state (4.9 percent) and the nation (4.4 percent) (Graph not shown).

In the U.S., about 77.9 million (1 out of every 3) adults have high blood pressure. Unfortunately, projections show that by 2030, prevalence of hypertension will increase 7.2 percent from 2013 estimates.[54]

Data at the local level revealed that more than one-third of Southwest Parish residents (with the exception of Beauregard Parish; 29.9 percent) have adults with high blood pressure. Additionally, more than one-third of residents in Allen Parish (42.3 percent) have also been told by a doctor that they have high blood pressure or hypertension. This rate is higher than the state (34.1 percent) and the nation (28.2 percent) (See Graph 27). Residents in Beauregard Parish report the lowest percentages of adults who have high blood pressure (29.9 percent) (See Graph 27).

Graph 27: Adults with High Blood Pressure



Source: Centers for Diseases Control and Prevention

According to the CDC's Behavioral Risk Factor Surveillance System, more than one-quarter of residents in Beauregard Parish (28.4 percent) reported that they are not taking medication for their high blood pressure (2006-2010) (Graph not shown). This indicator is relevant because engaging in preventive behaviors decreases the likelihood of developing future health problems. When considered with other indicators of poor health, high blood pressure also highlights a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services.

The output reading of an individual's blood cholesterol level can predict the chances of developing heart disease. High blood cholesterol is one of the major risk factors for heart disease.[55] The higher the blood

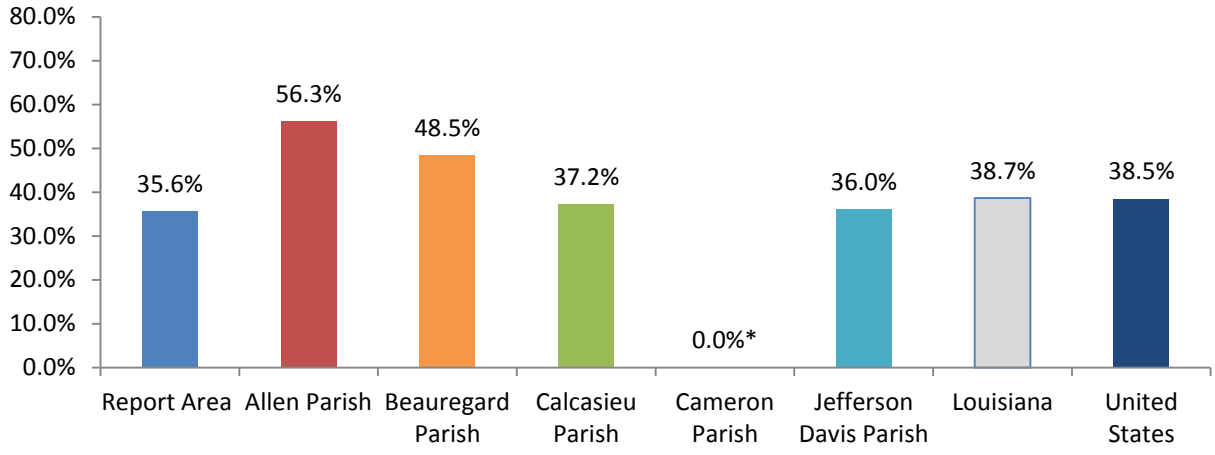
[54] American Heart Association: https://www.heart.org/idc/groups/heart-public/@wcm/@sop/@smd/documents/downloadable/ucm_319587.pdf

[55] National Institutes of Health: http://www.nhlbi.nih.gov/health/resources/heart/heart-cholesterol-hbc-what-html

cholesterol level is, the greater the risk for developing heart disease or having a heart attack. Heart disease is the number one killer of women and men in the U.S.[56] Each year, more than a million Americans have heart attacks and about half a million people die from heart disease.[57]

The CDC reported that more than half of residents in Allen Parish (56.3 percent), aged 18 and older, have been told by a doctor, nurse, or other health professional that they have high blood cholesterol. This rate is higher than the remaining parishes, the state (38.7 percent), and the nation (38.5 percent). More than one-third of adult Calcasieu residents (37.2 percent) have high cholesterol (See Graph 28).

Graph 28: Adults with High Cholesterol



Note: No data was available for Cameron Parish

Source: Centers for Disease Control and Prevention

According to the American Heart Association, there are many ways in which to control a person's blood pressure. These methods include, but are not limited to: eating a better diet (reduction of salt), regular physical activity, maintaining a healthy weight, stress management, not smoking, complying with prescription medications, limiting alcohol intake, and using hot tubs safely.[58] While these prevention measures are aimed towards preventing high blood pressure, many of the same preventive measures also apply to high cholesterol – in particular, regular physical activity, eating a healthy diet, losing weight, and not smoking. Data collected revealed that lifestyles changes are an important step to leading a heathy productive life and reducing the risks of preventable diseases.

Data from County Health Rankings regarding health outcomes represent how healthy a county/parish is within the United States. There are two types of health outcomes: how long people live (length of life) and how healthy people feel while alive (quality of life). Mortality (or death) data is examined to find out how long people live. More specifically, County Health Rankings measures premature deaths (deaths before age 75). Quality of life refers to how healthy people feel. Specifically, County Health

[56] Ibid.
[57] Ibid.
[58] American Heart Association: http://www.heart.org/HEARTORG/Conditions/HighBloodPressure/PreventionTreatmentofHighBloodPressure/Prevention-Treatment-of-High-Blood-Pressure_UCM_002054_Article.jsp

Rankings reports on the measures of health-related quality of life (their overall health, physical health, and mental health); while also reviewing birth outcomes (babies born with a low birthweight).

Remarkably, Cameron Parish is ranked first when compared to the remaining parishes located within the state of Louisiana.[59] This ranking indicates that the residents living in Cameron Parish fare extremely well in terms of overall health outcomes. In comparison, Calcasieu Parish ranks 24 in health outcomes; while Jefferson David Parish ranked slightly worse at 27. However, it is important to note that both parishes fall below the State of Louisiana's mean rank of 32 (See Table 12).

Table 12: County Health Rankings – County Snapshots 2016

	Health Outcomes	Health Factors	Mortality (Length of Life)	Morbidity (Quality of Life)	Health Behaviors	Clinical Care	Social & Economic Factors	Physical Environment
Allen	14	25	11	16	39	43	18	7
Beauregard	16	15	13	15	29	42	10	1
Calcasieu	24	14	24	23	28	11	16	16
Cameron	1	2	1	2	3	14	1	6
Jefferson Davis	27	21	33	21	19	44	22	17

Source: County Health Rankings

According to community leaders, chronic health conditions plague the Lake Charles service area. Specific conditions such as diabetes, high blood pressure, high cholesterol, and heart disease were reported to be significantly prevalent among community residents. In addition, high cancer rates were also reported as being a top health issue and concern among community residents. It was discussed that lifestyle choices play a considerable role in how residents develop chronic health conditions. Unfortunately, many are unaware how lifestyle behaviors can affect and bring forth these chronic conditions. Providing education and resources would allow residents to take actions and measures to lead a healthier lifestyle.

Residents are struggling with managing chronic illnesses, and are often confused when seeking care and adhering to treatment plans. When followed correctly, care and treatment plans can reduce symptoms and the likelihood of the condition worsening; thus, improving both health outcomes and quality of life.

[59] The ranking scale is based out of 64 parishes in Louisiana. A ranking of one indicates that the parish has the best factors in that category when compared to the remaining parishes

While there are many health and socioeconomic factors that are detrimental to the Lake Charles region, community stakeholders feel there are also many positive aspects that make it a livable community. Strong community cohesion amongst residents, solid working relationships between organizations and agencies, and the ability to unite as a community in times of crisis are features that contribute to the resiliency of Lake Charles. The community of Lake Charles and the surrounding areas are proactive to the needs of their residents by addressing issues head first.

Conclusions & Recommendations

Lake Charles Memorial Health System will begin developing strategies and goals in the implementation strategy planning phase based on the identified needs from the 2016 CHNA. Lake Charles Memorial will utilize their resources and relationships to assist community organizations and partners to address ways to tackle the community's overall health problems and critical issues related to the well-being of their residents. The community health needs assessment and implementation strategy will build on the previous 2013 CHNA assessment and planning reports. The 2016 CHNA addressed multiple questions such as: who was involved, what, where and why; while the implementation strategy phase will address the how and when Lake Charles Memorial will address the identified community health needs.

Information related to the CHNA findings and the subsequent follow-up action steps are important to community residents, local organizations, and leaders that hope to have a better understanding of the health and social needs of the communities they and Lake Charles Memorial Health System serve. Partnering and strong collaborative efforts are at the forefront of the planning efforts in the implementation strategy phase of the CHNA.

Within the 2016 CHNA, information collected in each project component piece provided Lake Charles Memorial with the opportunity to begin identifying, evaluating, and addressing the overall needs of the community along with recognizing gaps in care and services. Common themes and issues were present in the 2016 and 2013 CHNA and data collected from the 2016 CHNA included feedback from community leaders, health providers, and residents from hard-to-reach, underserved, and vulnerable populations. Important steps to addressing community needs include solidifying existing relationships in the Lake Charles area and developing and creating new relationships with key partners in order to tackle the region's growing health needs.

The key community health needs identified by Lake Charles Memorial Health System include: Access to Care (services for uninsured/underinsured/low-income population, access to primary care physicians and specialists), Behavioral Health (mental health and substance abuse), Health Behaviors (smoking, physical inactivity, access to health foods, health knowledge and education), and Heath Outcomes (chronic diseases).

An array of robust information enabled the working group to identify key health services gaps through the collection and analysis of primary and secondary data. Partnering with regional, statewide, and national partners, the CHNA is one component to creating strategies and goals to improve the health and well-being of community residents.

As the second phase begins, the implementation strategies and goals should take into consideration the geographic locations that experience difficulties obtaining and accessing services. Tripp Umbach recommends the following actions be taken, in close partnership with local community organizations.

Recommended Action Steps:

1. **Communicate**
    - Communicate the results of the CHNA process to staff, providers, leadership, boards, community stakeholders and the community as a whole.
2. **Utilization**
    - Use the inventory of available resources in the community in order to explore further partnerships and collaborations.
3. **Community Engagement**
    - Implement a comprehensive grassroots community engagement strategy to build upon the resources that already exist in the community, including committed community leaders that have been engaged in the CHNA process.
4. **Pooling Resources**
    - Develop working groups to focus on specific strategies to address the top identified needs of the communities in which the health system serves and develop a comprehensive implementation plan.
5. **Community Involvement**
    - Involve key community stakeholders in participating with working groups who will strategically address and provide expert knowledge on ways to address key community health needs.

APPENDIX

Appendix A: Primary Data

Primary Data

Process Overview

A comprehensive community-wide CHNA process was completed for Lake Charles Memorial Health System, connecting public and private organizations, such as health and human service entities, government officials, faith-based organizations and educational institutions to evaluate the needs of the community. The 2016 assessment included primary and secondary data collection that incorporated public commentary surveys, community stakeholder interviews, a hand-distributed survey, a health provider survey and a community forum.

Collected primary and secondary data brought about the identification of key community health needs in the region. Lake Charles Memorial Health System will develop an Implementation Strategy that will highlight, discuss and identify ways the health system will meet the needs of the communities they serve.

Tripp Umbach worked closely with Lake Charles Memorial to collect, analyze, review and discuss the results of the CHNA, culminating in the identification and prioritization of the community's needs at the local level.

The flow chart below outlines the process of each project component in the CHNA (See Graph 29).

Graph 29: CHNA Process

Public Commentary

As part of the CHNA, public comments related to the 2013 CHNA and Implementation Plan completed on behalf of the Lake Charles Memorial were obtained. Request for community comments offered community residents, hospital personnel, and committee members the opportunity to react to the methods, findings and subsequent actions taken as a result of the previous CHNA and planning process.

Respondents reviewed the 2013 CHNA report and Implementation Plans adopted by the Lake Charles Memorial Health System. Survey participants were asked to respond to a questionnaire developed by Tripp Umbach and approved by Lake Charles Memorial Health System. A hardcopy survey was strategically placed in locations within Lake Charles Memorial Health System. As an additional measure to gather feedback, Lake Charles Memorial Health System emailed a survey link to hospital staff members who were familiar with the assessment process, in particular, staff that worked on or have knowledge of community benefits, community outreach, strategic planning, and government affairs.

There were no restrictions or qualifications required of public commenters. The collection period for the public comments began March 2016 and continued through early April 2016. In total, 24 online surveys were collected and analyzed; no hard copy surveys were returned to the health system.

Lake Charles Memorial Health System Feedback

When asked if the assessment "included input from community members or organizations," 91.7 percent of survey respondents reported that it did; the remaining 8.3 percent did not know.

70.8 percent of respondents reported that the assessment did not exclude any community members or organizations that should have been involved in the assessment, while 25.0 percent did not know and 4.2 percent reported that a community member/organization was excluded.

- The survey respondent who selected that a community organization was excluded in the assessment stated that the local police department and the Calcasieu Community Clinic should have been more involved in the assessment.

In response to the question "Are there needs in the community related to health (e.g., physical health, mental health, medical services, dental services, etc.) that were not represented in the CHNA", 16.7 percent responded that, yes, some community needs were not represented; however, only one respondent reported that lack of dental care/accessibility and overall high rate of cancer were not well-represented. The respondent indicated that these needs/barriers related to health care are experienced by low-income women and the uninsured/underinsured populations.

A majority of survey respondents (91.7 percent) indicated that the Implementation Plan was directly related to the needs identified in the 2013 CHNA.

According to respondents, the CHNA and the Implementation Plan benefited them and their community in the following manner (in no specific order):

- Addressed smoking problems and provided healthy lifestyle options.
- Addressed women's issues.
- Better focus on specific areas that can be addressed immediately.
- Helped provide care to people who were in need.
- Highlighted resources that may not have been well known.
- The integration of Moss Regional allowed for more specialists and additional wellness education to the community.
- Allowed the hospital and health system to better prepare and provide for those in need.
- It helped develop a team effort to serve those in underserved communities in the area.
- It provided key priority areas to focus on regarding at-risk populations in the community who would benefit from specific health education topics and health services.
- Provided direction overall
- Targeted specific areas of focus eliminating guesswork.
- More health providers have relocated to the area, which were desperately needed, such as rheumatology and neurology.

Additional feedback on the CHNA/Implementation Plan:

- The availability on prostatectomy procedures locally.

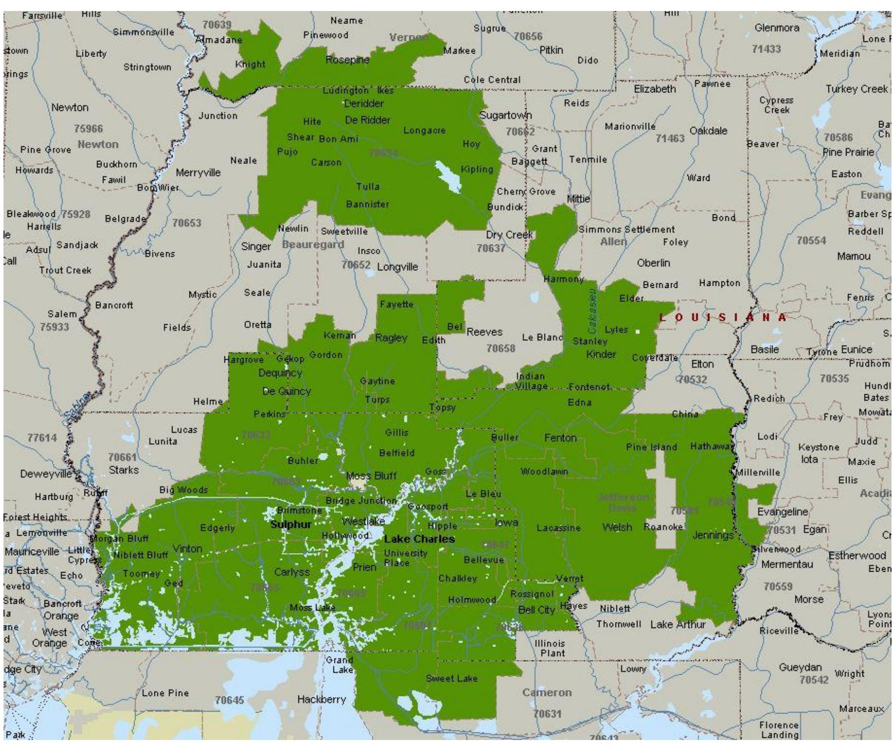
Secondary Data Profile

Tripp Umbach completed a comprehensive analysis of health status and socioeconomic environmental factors related to the health and well-being of residents in the community from existing data sources, such as state and county public health agencies, The Centers for Disease Control and Prevention (CDC), County Health Rankings, The Substance Abuse and Mental Health Services Administration (SAMHSA), Healthy People 2020, Truven Health Analytics, and other additional data sources. Tripp Umbach benchmarked data against state and national trends where applicable.

Tripp Umbach obtained data through Truven Health Analytics to quantify the severity of health disparities for ZIP codes in the CHNA, based on specific barriers to health care access. Truven Health Analytics provides data and analytics to hospitals, health systems, and health-supported agencies. The data resource, commonly referred to as Community Need Index (CNI), was used in the health assessment. CNI considers multiple factors that are known to limit healthcare access; the tool is useful in identifying and addressing the disproportionate unmet health-related needs of neighborhoods. Five prominent socioeconomic barriers to community health quantified in the CNI are Income Barriers, Cultural/Language Barriers, Educational Barriers, Insurance Barriers, and Housing Barriers.

For reporting purposes, the ZIP code study area refers to the 17 ZIP codes that were analyzed (See Map 3); however; the overall county study area refers to the Allen, Beauregard, Calcasieu, and Jefferson Davis parishes.

Map 3: 2016 CHNA Study Area Map



The secondary data profile includes information from multiple health, social, and demographics resources. Tripp Umbach used secondary data sources to compile information related to disease prevalence, socioeconomic factors, and behavioral habits.

The information provided in the secondary data profile does not replace existing local, regional, and national sites, but rather provides a comprehensive (not all-inclusive) overview that complements and highlights existing and changing health and social behaviors of community residents for the health system and social and community health organizations involved in the community health needs assessment.

- Asthma
- Information on Children
- Clinical Care
- Community Needs Index (CNI)
- County Health Rankings
- Crime and Safety
- Demographic Information/Trends
- General Health
- Health Behaviors
- Health Outcomes
- Mental Health
- Physical Environment
- Sexually Transmitted Diseases (STDs)
- Social and Economic Factors
- Substance Abuse

In 2016, a total of 17 ZIP code areas were analyzed for Lake Charles Memorial Health System. The 17 ZIP codes represent the community served by Lake Charles Memorial Health System. The 17 ZIP codes fall into Allen, Beauregard, Calcasieu, and Jefferson Davis parishes.

Table 13: ZIP Codes

	ZIP Code	City		ZIP Code	City
1.	70601	Lake Charles	10.	70633	Dequincy
2.	70605	Lake Charles	11.	70668	Vinton
3.	70607	Lake Charles	12.	70634	DeRidder
4.	70663	Sulphur	13.	70630	Bell City
5.	70611	Lake Charles	14.	70546	Jennings
6.	70615	Lake Charles	15.	70657	Ragley
7.	70647	Iowa	16.	70591	Welsh
8.	70669	Westlake	17.	70648	Kinder
9.	70665	Sulphur			

Population[60]

- Three out of five parishes are expected to have population growth from 2015 to 2020. The overall study area is expected to have a population change of 2.2 percent from 2015-2020.
- Cameron and Jefferson Davis are anticipated to have a decrease in population of -1.1 percent and -0.9 percent, respectively.
- Calcasieu Parish is expected to have the greatest population increase from 2015 to 2020, reporting a 2.6 percent rise. Calcasieu Parish reports the largest projected increase in total population in 2020 with 5,337 people.
- Louisiana overall is expected to have a population increase of 137,153 or 2.9 percent by 2020.

Table 14: Population

	Study Area (County)	Allen Parish	Beauregard Parish	Calcasieu Parish	Cameron Parish	Jefferson Davis Parish	Louisiana	USA
Change 2015-2020	2.2%	0.1%	1.6%	2.6%	-1.1%	-0.9%	2.9%	3.5%

Source: Truven Health Analytics

Demographics

- Both male and female populations are predicted to increase in Calcasieu Parish in 2015-2020. Jefferson Parish is expected to have a decline in males by -0.8 percent; while females are expected to decrease in Cameron Parish by -1.7 percent in 2015-2020.
- Residents aged 35-54 show the largest age representation in all of the parishes in 2015 (25.0 percent) and the projected year of 2020 (23.9 percent).
- The average household income for the county study area is $62,440. This is lower than the state ($64,209) and the nation ($74,165).
- 39.2 percent of residents in the county study area only have a high school degree; representing the largest portion of the population and is higher than the state (34.3 percent) and the nation (28.1 percent).
- Residents in the county study area are predominately White, Non-Hispanic (70.5 percent); this applies to all five parishes as well.

[60] There are a variety of sources that have forecasted different population growth rates for Calcasieu Parish. Data obtained from Truven Health Analytics were acquired directly from The Nielsen Company. Future projections may exceed the above population trend growth rate and demand for service s may increase due to the growing population and their needs.

Access to Care/Clinical Care

- Slightly more than half of residents in Beauregard Parish (51.2 percent) report Medicare enrollees ages 67-69 who received one or more mammograms in the past two years; this rate is lower than the state (58.9 percent) and the nation (63.0 percent).
- More than three-fourths of female residents in Calcasieu Parish (76.0 percent) aged 18 and older had a Pap test in the past three years; this rate is slightly lower than the state percentage of 78.1 percent and nation (78.5 percent)
- There are lower percentages of residents in the report area (42.4 percent) aged 50 and older who had a colonoscopy when compared to the state (54.5 percent) and the nation (61.3 percent).
- Slightly less than three-fourths of residents in Jefferson Davis Parish (72.7 percent) aged 65+ received a flu shot; this rate is higher than the state (68.5 percent) and the nation (67.5 percent).
- More than one-quarter of residents in Beauregard Parish (28.4 percent) report that they are not taking medication for their high blood pressure; this is higher than the state (16.3 percent) and the nation (21.7 percent).
- Calcasieu Parish (62.2) residents have access to more physicians per 100,000 population when compared to the remaining parishes in 2012; this is slightly less than the state (64.3).

Food Security

- Residents in Allen Parish (14.8 percent) and Calcasieu Parish (14.5 percent) have the highest percentage of food insecurity when compared to the remaining parishes; while Cameron Parish reports the lowest (8.1 percent).
- Beauregard Parish (62.4 percent) has the highest percentage of residents with low food access (food deserts) when compared to the rest of the parishes; this rate is more than double the state (28.6 percent) and national figures (23.6 percent).
- Allen Parish reports more SNAP-authorized food stores at 120.3 per 100,000 population when compared to the remaining parishes; higher than the state (104.6) and the nation (78.4).
- There are more residents in Jefferson Davis Parish (18.6 percent) who receive SNAP benefits when compared to the remaining parishes, the state (16.4 percent) and the nation (13.0 percent).

Obesity

- More than one-third of adults aged 20 and older in Beauregard (35.4 percent) and Jefferson Davis (35.7 percent) parishes self-reported that they have a Body Mass Index (BMI) greater than 30.0 (obese); these rates are slightly higher than the state (34.1 percent) and the nation (27.1 percent).
- Across the parishes, there are more males who are obese than females.

- More than one-third of residents 18 and older in Allen Parish (38.3 percent) and Calcasieu Parish (37.9 percent) are overweight (BMI between 25.0 and 30.0) when compared to the remaining parishes, the state (34.5 percent) and the nation (35.8 percent).

Physical Activity and Nutrition

- There is more access to recreational and fitness facilities in Jefferson Davis Parish (12.7) when compared to the remaining parishes; this rate is higher than the state (9.6) and the nation (9.7).
- Adult residents in Allen (33.3 percent), Calcasieu (32.1 percent), and Jefferson Davis (33.0 percent) parishes aged 20 and older report no physical activity; these percentages are higher than the state (29.8 percent) and the nation (22.6 percent).
- More than three-fourths of adults over the age of 18 in Beauregard (82.2 percent), Calcasieu (83.4 percent), and Jefferson Davis (87.5 percent) reported that they consume less than five servings of fruits and vegetables each day. These rates are higher than the state (81.1 percent).

Health Outcomes

- In the Medicare population, about one-third of residents in Jefferson Davis Parish (32.4 percent) have diabetes; higher than the remaining parishes, the state (29.1 percent), and the nation (27.0 percent).
- Residents in Allen (15.6 percent) and Jefferson Davis (15.7 percent) parishes report higher percentages of adults aged 18 and older that have asthma; these percentages are higher than the state (11.7 percent) and nation (13.4 percent).
- More residents in Calcasieu Parish aged 18 and older had coronary heart disease or angina (7.4 percent); this rate is higher than the remaining parishes in the study area, state (4.9 percent), and the nation (4.4 percent).
- More than one-third of residents 18 and older in Allen Parish (42.3 percent) have high blood pressure or hypertension; this rate is higher than the state (34.1 percent) and the nation (28.2 percent).
- More than half of residents in Allen Parish (56.3 percent) aged 18 and older have high blood cholesterol; this rate is higher than the remaining parishes, the state (38.7 percent), and the nation (38.5 percent).
- Jefferson Davis (131.2 per 100,000 population) and Cameron (124.7) parishes have the highest rates of women with breast cancer; higher than Allen (102.5), Beauregard (118.0), Calcasieu (119.8), the state (121.9) and the nation (123.0).
- Allen Parish reports the highest rate of residents with colon and rectum cancer (56.6 per 100,000 population); Cameron (54.3) and Jefferson Davis (54.6) also report high rates.
- Residents in Jefferson Davis Parish (87.4 per 100,000 population) report high rates of lung cancer; higher than the state (73.0) and the nation (63.7).

- Residents in Calcasieu (157.6 per 100,000 population) and Cameron (163.0) parishes have more males with prostate cancer compared to the remaining parishes and the nation (131.7).
- Residents in Jefferson Davis Parish (209.5 per 100,000 population) have a higher death rate due to malignant neoplasm (cancer) when compared to the remaining parishes, the state (193.7), and the nation (168.9).
- There are fewer Medicare residents in Calcasieu Parish who have heart disease (28.9 percent) when compared to all of the parishes except Beauregard, which has the highest percentage of residents with heart disease at 36.1 percent.

Behavioral Health/Mental and Substance Abuse

- Slightly less than one-quarter of residents in Allen Parish (22.5 percent) lack social or emotional support when compared to the state (21.7 percent) and the nation (20.7 percent).
- The rate of mental health providers is the highest in Calcasieu Parish with 58.5 per 100,000 population; on the opposite end of the spectrum, residents in Beauregard Parish reported a rate of only 16.0 per 100,000 per population of mental health providers. This rate is more than four times lower than the state (77.6) and more than eight times lower than the nation (134.1)
- Allen Parish has higher rates of residents (17.0 percent) who commit suicide when compared to Calcasieu Parish (15.2 per 100,000 population), the state (12.1), and the nation (12.3).
- Beauregard Parish (55.2 per 100,000 population) has higher rates of unintentional injuries resulting in death than the state (48.0) and the nation (38.6).
- 16.1 percent of residents in Jefferson Davis Parish aged 18 and older are heavy alcohol consumers; this is higher than the state (15.9 percent) and only slightly lower than the nation (16.9 percent).
- Slightly less than one-third of residents 18 and older in Cameron Parish (30.8 percent) currently smoke cigarettes some days or every day. This rate is higher than all of the parishes in the study area, the state (21.9 percent), and the nation (18.1 percent).

Socioeconomic Factors

- Residents in Beauregard (17.3 percent) and Calcasieu (16.4 percent) parishes have the highest percentages of uninsured population; these percentages are higher than the nation (14.2 percent).
- There are more residents in Jefferson Davis Parish (21.4 percent) who live 100 percent below the federal poverty level when compared to the remaining parishes; this rate is higher than the state (19.6 percent) and the nation (15.6 percent). On the opposite end of the spectrum, Cameron Parish reports the lowest percentage at 8.3 percent.
- There are more residents in Jefferson Davis Parish (44.7 percent) and Allen Parish (44.6 percent) who live 200 percent below the federal poverty level when compared to the remaining parishes; this rate is higher than the state (40.2 percent) and the nation (34.5 percent).

- Residents in Allen and Beauregard Parishes face the highest unemployment rates at 7.5 percent and 7.0 percent respectively; these percent rates are slightly higher than the state (6.5) and the nation (5.4).
- Residents in Calcasieu Parish (586.9) face high crime rates per 100,000 population when compared to the remaining parishes; this rate is higher than the state (532.9) and the nation (395.5).

Community Needs Index (CNI)

Five prominent socioeconomic barriers to community health are quantified in the CNI.

1) Income Barriers — Percentage of elderly, single parents and married parents living in poverty
2) Cultural/Language Barriers — Percentage Caucasian/non-Caucasian and percentage of adults over the age of 25 with limited English proficiency
3) Educational Barriers — Percentage without high school diploma
4) Insurance Barriers — Percentage uninsured and percentage unemployed
5) Housing Barriers — Percentage renting houses

CNI SNAPSHOT of Study Area ZIP Codes

- Table 15 reports the CNI scores for the overall study area; which encompasses all 17 ZIP codes.
- The overall CNI score in 2015 was 3.8; the CNI score in 2014 was 3.8. Thus, there is no CNI score change between the years.
- The CNI score is on a scale of 1.0-5.0; therefore, an overall CNI score of 3.8 indicates that residents face moderate socioeconomic barriers when seeking and obtaining heath care in the area.
- The median CNI score for the study area is 3.0.

Table 15: ZIP Code CNI Scores

	2015 Pop.	Poverty 65+ %	Poverty Child %	Sin. w/ Children Poverty %	Limited English %	Minor %	No HS Diploma %	Unemployment %	Uninsured %	Rent %	Income Rank	Cult Rank	Education Rank	Insurance Rank	House Rank	2014 CNI Score	2015 CNI Score	CNI Score Change
ZIP Code Study Area	263,132	12.85	20.98	46.56	0.61	29.51	15.29	8.64	14.83	28.30	4	4	3	4	4	3.8*	3.8*	0.0

* WEIGHTED AVERAGE OF TOTAL MARKET

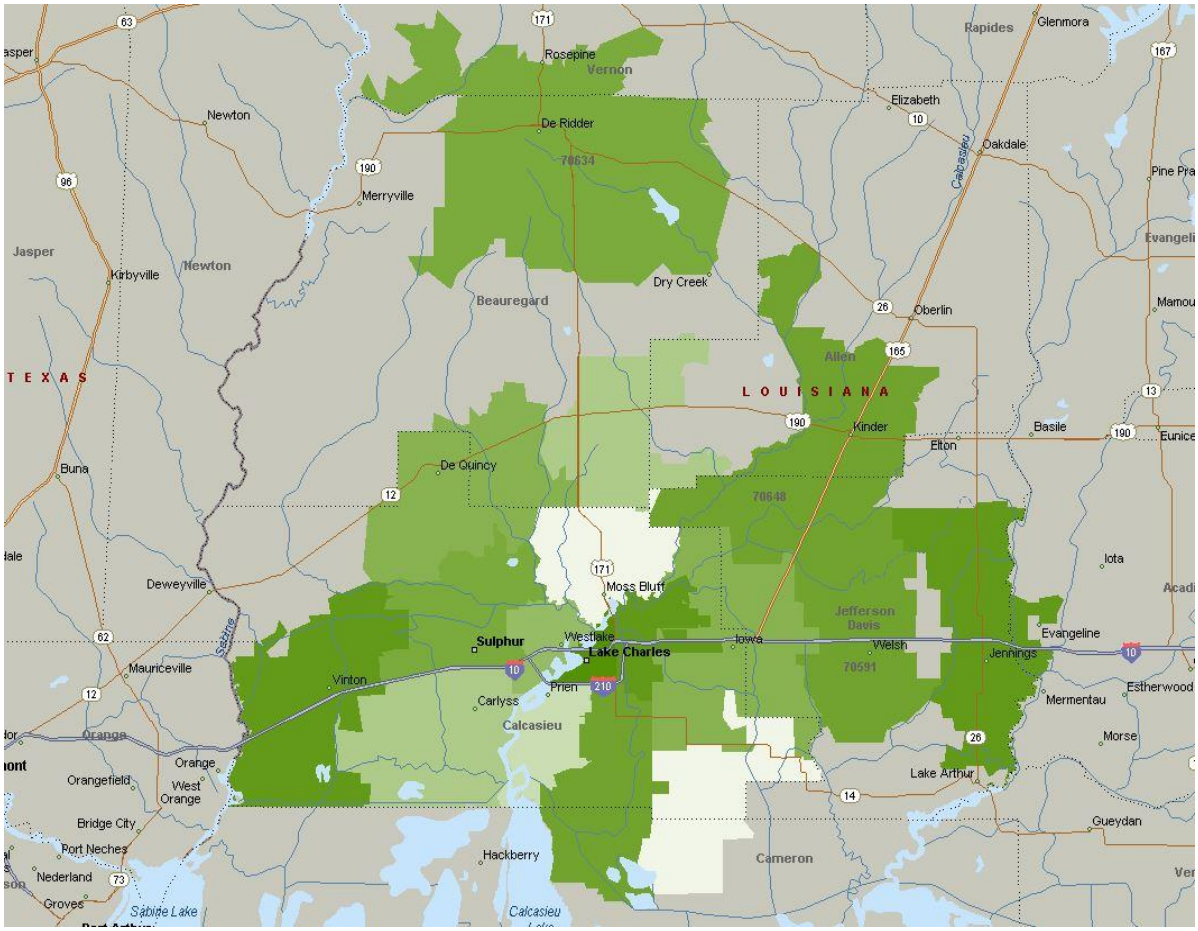
TABLE 16: CNI ZIP CODES: SPECIFIC DATA AND MEASURES

Zip	City	2015 Pop.	Income	Culture	Education	Insurance	House	2015 CNI Score
70601	Lake Charles	31,466	4	5	4	5	5	4.6
70615	Lake Charles	14,040	4	5	4	5	4	4.4
70668	Vinton	6,479	4	4	5	5	4	4.4
70546	Jennings	15,895	4	4	5	5	4	4.4
70607	Lake Charles	26,455	4	5	3	5	4	4.2
70591	Welsh	5,318	5	4	4	5	3	4.2
70648	Kinder	8,438	4	4	5	4	4	4.2
70663	Sulphur	28,308	5	3	4	4	4	4.0
70634	Deridder	26,148	4	4	4	4	4	4.0
70647	Iowa	10,030	4	4	4	4	3	3.8
70633	Dequincy	8,510	4	3	4	5	3	3.8
70669	Westlake	10,199	4	4	3	4	3	3.6
70665	Sulphur	10,946	4	3	3	4	2	3.2
70657	Ragley	4,845	5	2	4	4	1	3.2
70605	Lake Charles	34,175	2	3	1	4	4	2.8
70611	Lake Charles	20,056	1	3	2	3	2	2.2
70630	Bell City	1,824	2	2	3	3	1	2.2

- ZIP code 70601 (Lake Charles) had a 2015 CNI score of 4.6, which indicates residents in this ZIP code have the greatest barriers to accessing care when compared to the remaining ZIP codes in the study area.
- ZIP codes 70611 (Lake Charles) and 70630 (Bell City) had a 2015 CNI score of 2.2 which indicates that residents in these ZIP codes have the least barriers to accessing care when compared to the remaining ZIP codes in the study area.

MAP 4: 2016 CNI STUDY AREA MAP

The geographic representation on the map below depicts ZIP codes that show high socioeconomic barriers and low socioeconomic barriers. ZIP codes that are depicted in dark green shades face higher barriers to health care; while ZIP codes that are light in color face fewer barriers to healthcare.



CNI Scores by ZIP Code

5.0 — Higher socioeconomic barriers

3.0

1.0 — Lower socioeconomic barriers

County Health Rankings

The County Health Rankings & Roadmaps program is a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute.

The annual County Health Rankings measures vital health factors, including high school graduation rates, obesity, smoking, unemployment, access to healthy foods, the quality of air and water, income, and teen births in nearly every county in America. The annual Rankings provide a revealing snapshot of how health is influenced by where we live, learn, work and play. They provide a starting point for change in communities.[61]

Louisiana has 64 parishes; the rating scale for Louisiana is 1 to 64 (1 being the healthiest and 64 being the least healthy). Parishes are ranked relative to the health of other parishes in the same state on the following measures:

- Two Health Outcomes: how long people live (mortality) and how healthy people feel (morbidity).
- The County Health Rankings are based on weighted scores of four types of health factors:
  - Health behaviors (9 measures)
  - Clinical care (7 measures)
  - Social and economic (8 measures)
  - Physical environment (5 measures)

<u>Allen Parish</u>

- Allen Parish ranked 14 overall in 2016 out of 64 parishes in Louisiana.
- Allen Parish moved its ranking score in 2016 in Health Outcomes rankings from 2 in 2011 to 14 in 2016 and the mortality ranking from 1 in 2011 to 11 in 2016. This ranking change went from a positive ranking to a worse ranking.
- Allen Parish's Physical Environment ranking improved from 32 in 2011 to 7 in 2016.

<u>Beauregard Parish</u>

- Beauregard Parish ranked 16 overall in 2016 out of 64 parishes in Louisiana.
- Beauregard Parish ranked below the median of 32 in Health Outcomes (16), Health Factors (15), Mortality (13), Morbidity (15), Health Behaviors (29), Social and Economic Factors (10), and Physical Environment (1) in 2016.
- Beauregard Parish improved in rankings from 2011 to 2016 in Health Outcomes, Health Factors, Mortality, Morbidity, Clinical Care, Social and Economic Factors, and Physical Environment.

[61] County Health Rankings: www.countyhealthrankings.org/about-project

Calcasieu Parish

- Calcasieu Parish ranked 24 overall in 2016 out of 64 parishes in Louisiana.
- Calcasieu Parish improved its ranking in Health Outcomes (24), Health Factors (14), Mortality (24), Health Behaviors (28), and Physical Environment (16) in 2016 from 2011.

Cameron Parish

- In 2016, Cameron Parish ranked 1 in Health Outcomes, Mortality, and Social and Economic Factors.
- The Physical Environment in Cameron Parish improved significantly – going from 43 in 2011 to 6 in 2016.

Jefferson Davis Parish

- Jefferson Davis Parish ranked 27 overall in 2016 out of 64 parishes in Louisiana.
- In 2016, Jefferson Davis Parish improved their rankings in Health Outcomes (27), Health Factors (21), Mortality (33), Morbidity (21), and Health Behaviors (19) when compared to 2011.

Community Stakeholder Interviews

As part of the CHNA, telephone interviews were completed with community stakeholders in the community benefits service area to better understand the changing health environment. Community stakeholder interviews were conducted during February and March 2016.

Community stakeholders targeted for interviews encompassed a wide variety of professional backgrounds including: 1) public health expertise; 2) professionals with access to community health related data; and 3) representatives of underserved populations. The interviews offered community stakeholders an opportunity to provide feedback on the needs of the community, secondary data resources and other information relevant to the study.

Tripp Umbach worked closely with the Lake Charles Memorial Health System to identify key community stakeholders. A letter was mailed, along with a follow-up email to community stakeholders, to introduce Tripp Umbach and define the stakeholders' roles in the CHNA process. The letter also introduced the project and conveyed the importance of the CHNA to the community. Each interview was conducted by a Tripp Umbach consultant and was approximately 30 to 60 minutes in duration. The interviews provided a platform for stakeholders to identify health issues and concerns affecting residents in their service area, as well as ways to address those concerns.

The qualitative data collected from community stakeholders are the opinions, perceptions and insights of those who were interviewed as part of the CHNA process. A diverse representation of community-based organizations and agencies were among the 12 stakeholders interviewed.

A full report was provided to leadership at Lake Charles Memorial.

THE COMMON THEMES FROM THE STAKEHOLDER INTERVIEWS WERE (IN NO PARTICULAR ORDER):

1. Poor Lifestyle Choices
2. Socioeconomic Factors
3. Chronic Health Conditions
4. Behavioral Health Issues
5. Community Infrastructure

Evaluation of 2013 Implementation Plan

Representatives from Lake Charles Memorial Health System have worked over the last three years to develop and implement strategies to address the health needs and issues in the study area and evaluate the effectiveness of the strategies created in terms of meeting goals and combatting health problems in the community.

In the 2013 CHNA, Partnership with Moss Regional Public Hospital, Chronic Disease Prevention & Management, and Teen Pregnancy Education & Management were identified as health issues and needs. Lake Charles Memorial's leadership developed goals and strategies for each identified need.

Tripp Umbach received the 2013 CHNA implementation plan status and outcome summary assessments provided by the working group who were charged with assisting Tripp Umbach in completing the CHNA. Tripp Umbach provided the Lake Charles working group with an implementation strategy planning evaluation matrix to use for the 2016 implementation strategy planning. The purpose of the evaluation process is to determine the effectiveness of the 2013 CHNA and implementation plan strategies, including each of the three identified priorities: Partnership with Moss Regional Public Hospital, Chronic Disease Prevention & Management, and Teen Pregnancy Education & Management. Table 17 reflects the CHNA needs identified in 2013.

Table 17 reflects input from hospital leadership on the problem statement for each past priority, strategies developed to address for each, and the metrics to determine strategy effectiveness to assess how well each strategy has performed.

Table 17: 2013 Lake Charles Memorial Health System CHNA Needs

1) Partnership with Moss Regional Public Hospital	2) Chronic Disease Prevention & Management	3) Teen Pregnancy Education & Management
Potential Loss of Services for: • Uninsured • Underinsured • Low income Access to care for the uninsured and underinsured Shortage of primary care physicians Access to specialists • Chronic Diseases: • Heart Disease • Diabetes • Cancer • Respiratory Disease Prescription Drug Costs	Chronic Diseases: • Heart Disease • Diabetes • Cancer • Respiratory Disease Adult Obesity • Physical Inactivity • Limited Access to Healthy Foods Health Education & Knowledge Adult Smoking	Teen Pregnancy Low Birth Weight

Table 18: Implementation Plan Status/Outcome Summary

Priority 1: Partnership with Moss Regional Public Hospital					
	Strategies/Goals Awareness	**Strategies/Goals Education**	**Strategies/Goals Accessibility**	**Metrics**	**Scale 1-5**
Loss of services: (Uninsured/ Underinsured/ Low income)	Entered into a Cooperative Endeavor Agreement to maintain the viability of existing hospital, clinic and out-patient services.	Provided information to underserved/ uninsured through community orgs., advertising, and direct mail.	Reorganized and expanded health care services for uninsured/underinsured transferred inpatient and emergency services to Memorial.		5
Access to Care	Communicated changes; expanded patient financial eligibility.	Provided information to underserved/ uninsured regarding criteria/ financial assistance.	Took over PCP clinic and employed physicians who were previously with LSUHSC system.	Clinic/ Outpatient: 2013- 49,001 2014 - 92,030 2015 - 94,505	5
	Establish an oncology patient navigation program.	Oncology patients navigated through the navigation program were assisted info. direction and resources.	Navigated oncology patients throughout the cancer care continuum. Navigator then assists patient with info and resources.	# Patients ID: 2013 – N/A 2014 – 490 2015 – 1,983	5
	Established breast cancer screenings at Moss.		Provided patients with low/no cost mammograms.	Reduced/Free: 2013 - N/A 2014 - 3,611 2015 - 3,262	5
	Transportation barrier to cancer care.	Patients provided with national/local resource information and gas card resource.	A gas card assistance resource was established for oncology patients identified with this need.	Oncology patients rec. gas card: 2013 - N/A 2014 – 6 2015 – 56	3
Shortage of PCP	Increased PCPs	Provided info. to underserved/ uninsured.	Established 7-day week Urgent Care Center for those without primary pcp's	Visits: 2013 – 7,687 2014 - 23,743 2015 - 25,850	5
Access to specialists	Moss PCP clinic established as door/referral path for uninsured/underinsured to specialty care.		Established local access to specialty service clinics.	Reduced wait & travel for specialty services.	4
	Established an oncology patient navigation program to assist patients.	Patients recommended treatment outside of SWLA were assessed and assisted.	Established a process to assist patients with information, resources, and follow up treatment.	2013- N/A 2014- N/A 2015- 37 GYN cancer patients	4

Prescription Drug Costs (Cancer)	Established an oncology patient navigation program.	Assessed oncology through navigation program and if identified with this barrier were assisted with resources.	ID patients with RX cost assistance through the cancer care continuum.	Oncology patients rec. RX assistance: 2013- N/A 2014- 5 2015- 24	3
Priority 2: Chronic Disease Prevention & Management					
	Strategies/Goals Awareness	**Strategies/Goals Education**	**Strategies/Goals Accessibility**	**Metrics**	**Scale 1-5**
Chronic Diseases: (Colon Cancer)	Annual Colorectal Cancer Screenings	LCMH distributes free yearly fecal occult screenings for colorectal cancer.	The Radiation Oncology department distributes and collects the screening kits.	Results of fecal occult blood: 2013- 24 Kits returned, 5 positive 2014- 54 Kits returned, 5 of positive 2015- 62 Kits returned, 4 positive	5
Chronic Diseases: (Heart Disease, Diabetes)	Employer Wellness Annual Screenings	Screenings to all employer groups involved in the Wellness Program.	LCMH Employer Wellness staffs and runs the screenings.	2013: 86 non-LCMH 1210 LCMH 2014: 103 non-LCMH 851 LCMH 2015: 212 non-LCMH 810 LCMH	5
Chronic Diseases: (Lung Cancer, Respiratory)	CT Low Dose Lung Scan Cancer Screening	Annual screenings, Promoting early identification and better management of chronic diseases. Providing better access to screenings.		2013 – N/A 2014 – N/A 2015 – 23 patients scanned, 4 follow-up w/in yr.; follow-up in six months.	3
	Educated at risk populations and physicians regarding Lung Cancer prevention & diagnostics	Media interview, Lung Scan Cancer Screening, information packets sent to Memorial Medical Group doctor, direct mail Social media campaign, website information on lung cancer screening guidelines.			4

Chronic Diseases: (Cancer)	Cancer support groups	LCMH cancer center staff, patients and community kept aware of free support groups.	LCMH Cancer Center provided information and education through the three cancer support outlets.	Attendance of three support groups: 2013 – N/A 2014 – 37 2015 – 119	5
	Lymphedema prevention, education, and care.	Breast cancer patients who receive information and/or prevention education session with the LCMH Lymphedema specialist.	Lymphedema education and prevention appointment.	Patients referred through the oncology navigation program: 2013 – N/A 2014 – 8 2015 – 10	5
	American Cancer Society Personal Health Manager	Patients provided with a care organizer containing cancer education and resources.	Patients provided with a care organizer containing cancer education and resources.	Patients rec. a PHM: 2013 – N/A 2014 – N/A 2015 – 61	3
Chronic Diseases: (Breast Cancer)	Informed about Breast Cancer Education programs, diagnosis & tx.	2014/2015 – Media exposure Digital web banners promoting breast cancer awareness and screenings.		2014/2015 - Over 400 attendees annually	5
Chronic Disease (Adult Obesity) (Physical Inactivity, limited access to healthy foods)	Dare to Be Healthy Initiative	Address the wellness education need of the area.	LCMH and all other area hospitals participated in the Dare to Be Healthy Initiative, made possibly by a grant from BCBS of LA.	Ppl screened: 2013 – 163 2014 – 364 2015--NA	4
Chronic Disease	Health Coaching Healthy Huddle support group for those trying to lose weight, eat right and exercise more.	Part of LCMH's Employer Wellness Program	Available to all businesses who utilize LCMH Employer Wellness.		4

Chronic Diseases: (Heart Disease, Diabetes, Cancer)	Community Health Fairs	Yearly wellness participation in various local health fairs the community.	Invitation to participate at various businesses and community organizations	Participated in health fairs: 2013 –9 2014 –11 2015 –15	4
	Community Health Fairs	LCMH cancer center staff participate in various local health fairs each year to promote cancer services to the community.	Various businesses and community organizations invited us to participate in these events throughout the year.	Cancer center participation at health fairs: 2013 – 0 participated 2014 – 3 participated 2015 - 11 participated	**5**
	Monthly Community Seminar Series	Healthcare professionals at LCMH educate the public health conditions, treatments, and prevention.	Advertisements in local media.	Attendees: 2013 – 255 2014 – 162 2015 – 298	**5**
	Disease Prevention & Wellness	Healthcare professionals with LCMH educate the employees of businesses involved in Wellness Program.	Available to all business who utilize LCMH Employer Wellness.	Attendees: 2013 – 402 2014 – 300 2015 – 711	**5**
Chronic Disease: (Cancer) Adult Smoking	Monthly smoking cessation classes open to public at Moss Memorial.	Provide community with a smoking cessation tips and resources to help them quit.	Referrals from LCMH employer wellness groups, physicians, media, organizations and outreach activities to promote class.	Attendees: 2013 – 95 2014 – 118 2015 – 93	**5**

Priority 3: Teen Pregnancy Education & Management					
	Strategies/Goals Awareness	Strategies/Goals Education	Strategies/Goals Accessibility	Metrics	Scale 1-5
Teen Pregnancy	Communicated services of our Memorial's OBCare program which provides free/low cost prenatal services to women in SWLA.	Provided info. to underserved/uninsured regarding criteria/financial assistance in impoverished areas of Calcasieu Parish.	Ob Care works with social organizations in our community to refer pregnant women with mental health, domestic violence or homeless issues to resources.		3
Low Birth Weight	Communicated to organizations and underinsured/uninsured women the services of Memorial's OBCare	Conducted classes to educate at-risk women on nutrition, smoking, and other factors affecting low-birth weight.		2014 - OB Care Program 573 Deliveries 656 New patients 5996 Total return visits	4

Rating Scale:
1=Poor
2=Fair
3=Good
4=Very Good
5=Excellent

Hand-Distributed Surveys

Tripp Umbach employed a hand-distribution methodology to disseminate surveys to individuals within the community. A hand survey was utilized to collect input, in particular, from underserved populations. The hand survey was designed to capture and identify the health risk factors and health needs of those within the study area. The hand survey collection process was implemented during April and May 2016.

Tripp Umbach worked with community-based organizations to collect and distribute the surveys to end-users in the underserved populations. Tripp Umbach's engagement of local community organizations was vital to the survey distribution process.

In total, 175 surveys were collected and used for analysis. The information below represented key survey findings collected from the hand-distributed survey.

Methodology:

- A hand-distributed survey methodology was employed to collect input from populations in communities surrounding Lake Charles Memorial Health System in order to identify health risk factors and health needs in the community.
- Working through community-based organizations and FQHCs/clinics, the hand surveys were collected from residents within the community.

- Community-based organizations encouraged participants to fill out the survey upon entry to their facility, while waiting in the lobby. Engagement of local community organizations was vital in the distribution process. The information collected from the hand surveys is representative of residents who use and obtain services from community-based organizations.
    - Tripp Umbach provided assistance to community organizations in the distribution of the hand survey, as requested.
- Hard copies of the hand survey were mailed to community-based organizations and returned to Tripp Umbach for input and analysis.

Overall Key Findings:

- A majority of survey respondents are female (73.5 percent); while 26.5 percent are males.
- More than one-quarter of survey respondents (27.7 percent) are seniors; while more than half (54.3 percent) are ages 34-64 years old.
- A majority of survey respondents are from Calcasieu Parish (78.5 percent).
- A majority of survey respondents are White/Caucasian (70.3 percent) followed by Black/African Americans (23.4 percent).
- More than half of survey respondents (52.3 percent) have a household income under $24,999 a year.
- Slightly more than one-quarter of survey respondents (25.3 percent) do not have a high school degree. 20.7 percent of survey respondents have a bachelor's degree or master's degree.
- More than one-third of survey respondents are employed or self-employed (44.1 percent); while more than one-quarter are retired (27.6 percent).
- Slightly less than one-quarter of survey respondents do not have a primary care doctor or provider (24.6 percent).
- For those who do not have a primary care doctor or provider, 54.1 percent can't afford one and 18.9 percent do not need one.
- More than half of survey respondents (51.2 percent) seek care at a doctor's office; followed by care at a clinic (21.1 percent).
- More than three-fourths of survey respondents saw a doctor or primary care physician within the past year (79.3 percent).
- More than one-third of survey respondents do not have health insurance (34.6 percent).
- Reasons why survey respondents do not have health insurance include: affordability (58.7 percent), not qualifying (21.7 percent), and had insurance but lost it (15.2 percent).

- A majority of survey respondents engage in physical activity to stay healthy (73.1 percent) and are able to get fresh healthy foods (91.2 percent).
- More than half of survey respondents seek their dental needs at a dentist office (62.9 percent); unfortunately, 20.4 percent do not seek care.
- 44.1 percent of survey respondents had an appointment within the past year with a dentist or at a dental clinic.
- Slightly more than half of survey respondents paid out-of-pocket for their dental services (50.6 percent); followed by one-third who paid for services with their dental insurance (33.9 percent).
- More than half of survey respondents have been told they have high blood pressure (51.5 percent), more than one-third are overweight/obese (37.9 percent), 22.1 percent have heart problems, and 17.5 percent have diabetes.
- 15.0 percent of survey respondents currently smoke, while more than one-third previously smoked but have quit (35.0 percent).
- More than one-quarter of survey respondents (25.1 percent) have a physical limitation that affects their daily life, followed by 22.0 percent with a mental or emotional ailment.
- TV (25.1 percent), word of mouth (18.1 percent), and the internet (17.0 percent) are the most common methods in how survey respondents find out about information in their community.
- A majority of survey respondents use a car as their main form of transportation (81.5 percent).
- 14.3 percent of survey respondents have missed an appointment due to the lack of transportation.
- 6.5 percent quit a job due to the lack of transportation.

Mental Health Overall Key Findings:

- 17.6 percent of survey respondents have been told they have a mental health concern.
    - Of those survey respondents who have a mental health concern, more than one-third have panic attacks, anxiety, or post-traumatic stress disorder (39.4 percent).
    - 33.3 percent reported they have clinical depression or bipolar disorder.
- 17.0 percent of survey respondents have received services for a mental health issue.
    - Of those who have received services for a mental health issue, 35.3 percent received services from a counselor, 23.5 percent obtained services from a hospital/emergency room, and 23.5 percent from a primary care doctor/health care professional.
- 8.9 percent of survey respondents did not receive services/treatment they needed.

- 22.2 percent of survey respondents have not received services they needed because they wanted to make it on their own without treatment and counseling/medication was too expensive.
- Cancer (13.3 percent), Drug/Alcohol use (10.8 percent), diabetes (9.0 percent), mental health (8.3 percent), and obesity (6.7 percent) are the biggest health concerns in the community according to survey respondents.
- 23.5 percent of survey respondents have been told they have cancer.
- Of those who have cancer, the highest occurring cancers are breast cancer (36.4 percent), melanoma (15.2 percent), colon/rectal (9.1 percent), and lung (9.1 percent).
- Slightly less than one-third of survey respondents have a family history of cancer (32.7 percent).
- 39.1 percent of those who have a family history of cancer reported their father had cancer, followed by their mother (29.9 percent), sister (19.5 percent), and brother (10.3 percent).
- Slightly less than one-quarter of survey respondents are able to see a doctor when they need to (24.5 percent).
- Finances (32.4 percent), transportation needs (18.9 percent), and job responsibilities (18.9 percent) are the top three concerns which keep respondents from getting to their appointment.
- 27.7 percent of survey respondents struggle with unfamiliar medical terms (27.7 percent) and feeling that doctors or nurses "talk down" to them when talking to their health professionals.
- Expensive medication (42.5 percent) and fear of medication and it affects (21.8 percent) are the top two challenges survey respondents have when managing medications and treatments.
- A small percent of survey respondents do not understand the written information on their medication (2.9 percent).
- The top two problems survey respondents face when they or their family need health care or supportive services are: not having health insurance (25.3 percent) and lack of available information on resources (23.2 percent).

Health Provider Survey

A provider health survey was created to collect thoughts and opinions of the health providers' community regarding the care and services they provide. A health survey was made available to health providers in the Lake Charles Memorial community. Lake Charles Memorial sent emails to their health providers requesting survey participation. A paper survey was also mailed to health providers to introduce the community health needs assessment (CHNA) and request health providers to respond to the survey to ensure a strong response rate.

Survey data were collected from March 2016 – April 2016. In total, 80 surveys were collected via Survey Monkey and 62 paper surveys were returned to Tripp Umbach for analysis.

Overall Survey Result Findings

- A majority of survey respondents practice in Calcasieu Parish (88.5 percent).
- More than half of survey respondents are male (60.0 percent); while 38.0 percent are female.
- More than half of survey respondents (63.0 percent) are between the ages of 26-54 years old.
- More than one-third of survey respondents (38.5 percent) plan on retiring in 15 or more years; unfortunately, 32.0 percent plan on retiring within 10 years.
- A majority of survey respondents are a primary care physician or a physician specialist (52.2 percent).
    - 27.9 percent reported they were another type of health provider, of those responses, 44.3 percent (N=16) reported they were physical therapists.
- Close to three-fourths of survey respondents (73.9 percent) work in a hospital or doctor's office. 16.7 percent reported that they provide care/services in a health clinic or hospital outpatient clinic.
- More than one-third of survey respondents (38.6 percent) typically see 81+ patients a week at the facility where they provide care and services.
- Slightly less than half of survey respondents (47.0 percent) volunteer their services to people in the community. Of those who volunteer, 73.5 percent dedicate 1-5 hours a month to their community.
- More than one-third of survey respondents (35.9 percent) rated the community where they provide services or care as "unhealthy" or "very unhealthy".
- 40.1 percent of survey respondents reported that they "strongly agree" or "agree" that there are ample human and social services programs in the community; while more than three-fourths of survey respondents "strongly agree" or "agree" there are high quality health care programs and services (78.8 percent), there are ample employment opportunities overall (72.7 percent), and the community where they provide services/care is a safe place to live (82.5 percent).
- The top three perceived reasons why community residents do not receive care according to survey respondents are: no insurance coverage (19.5 percent), out of pocket costs/high deductibles (19.2 percent), and no transportation (13.5 percent).
- The top three most pressing health problems in the community according to survey respondents are diabetes (19.1 percent), obesity (17.0 percent), and heart disease /stroke (14.9 percent).
- Poor eating habits (24.0 percent), lack of exercise (18.0 percent), and tobacco use (16.2 percent) are the top risky behaviors in the community where survey respondents provide care/services.

- One-quarter of survey respondents (25.1 percent) reported mood disorders such as depression and bipolar disorder as the most significant behavioral health issue in the community, followed by anxiety disorders (22.0 percent), and dementia such as Alzheimer's Disease (13.3 percent).
- Top three areas for improvements survey respondents would like to see in the current health care system are: affordable medication (14.7 percent), access to mental health care services (13.5 percent), and affordable health care (12.4 percent).
- More than three-fourths of survey respondents (72.0 percent) reported that 41 percent-80 percent of their overall patient populations are compliant with their treatment plans after they are seen for care/services.
- Some reasons why survey respondents believe their patient populations are noncompliant include: high cost of care or medications (16.7 percent), personal reasons such as scheduling, forgetfulness (14.5 percent), and lack of insurance coverage.
- A majority of survey respondents have access to interpreter services (72.4 percent) where they provide care and services.
- Spanish services are the most needed language choice when interpreter services are required (61.0 percent).

Provider Resource Inventory

An inventory of programs and services available in the region was developed by Tripp Umbach. The provider inventory highlights available programs and services within Lake Charles Memorial Health System's community. The inventory identifies the range of organizations and agencies in the community that are serving the various target populations within each of the priority needs. The inventory provides program descriptions and collects information about the potential for coordinating community activities and creating linkages among agencies. The provider inventory focused on the identified needs of the 2016 CHNA.

An interactive link of the provider resource inventory will be made available on Lake Charles Memorial Health System's website.

Community Health Forum

A regional community planning forum was held on June 7, 2016 at Lake Charles Memorial Health System in Lake Charles, LA. The community planning forum involved 21 community leaders representing various community organizations, health and human services agencies, health institutions, and additional community agencies. Forum participants were invited by Lake Charles Memorial's working group to attend the three hour event facilitated by Tripp Umbach.

Tripp Umbach presented the results from secondary data analysis, community leader interviews, hand-surveys, and health provider surveys and used these findings to engage community participants in a group discussion. The robust primary and secondary data results were collected from the community health needs assessment (CHNA) process. Participants broke into groups to determine and identify issues that were most prevalent and widespread in their community. Finally, the breakout groups were charged with creating ways to resolve their community identified problems through concrete solutions in order to form a healthier community.

GROUP RECOMMENDATIONS

The group provided many recommendations to address community health needs and concerns for residents in Lake Charles Memorial Health System's service area. Below is a brief summary of the recommendations:

- ***Solidifying, Reinforcing, and Creating New Partnerships:*** Lake Charles Memorial forum participants cited that while collaboration and partnerships exist, the need for stronger relationships between organizations can reduce the duplication of services and streamline programs that are duplicative in nature. Integration of community goals and measures, emphasizing team work and community cooperation is necessary to bring measurable changes to the community. Focusing on inner city regions as well as rural areas by utilizing mobile buses would promote and disseminate information.
- ***Promotion of Health Education and Information:*** Understanding information and materials is often difficult for many community residents. Navigating the complex health care system, understanding health care coverage and related health care materials is often overwhelming, placing many at a disadvantage while accessing care and services. Working with organizations and having community residents work closely (one-on-one assistance) with designated staff members would build trust with staff between organizations and users. Promotion of health education and information is imperative to assisting residents in need. Health programs on diseases, tobacco use, diet and exercise need to be available along with information and materials which should be catered to audiences that have comprehension challenges.
- ***Increase Health Care Coverage:*** With the implementation of the Affordable Care Act (ACA), residents in Lake Charles are still uninsured and many are underinsured causing a gap in services and care for patients. It is imperative that community leaders and organizations assist residents who have no health insurance register for coverage and assist them to secure a medical home.
- ***Increase Health Professional Utilization:*** With the shift in the health care landscape it is important that resources are capitalized upon; thus, using health care professionals such as nurse practitioners, physician assistants, etc. to fill the gaps of the looming primary care physician shortage.

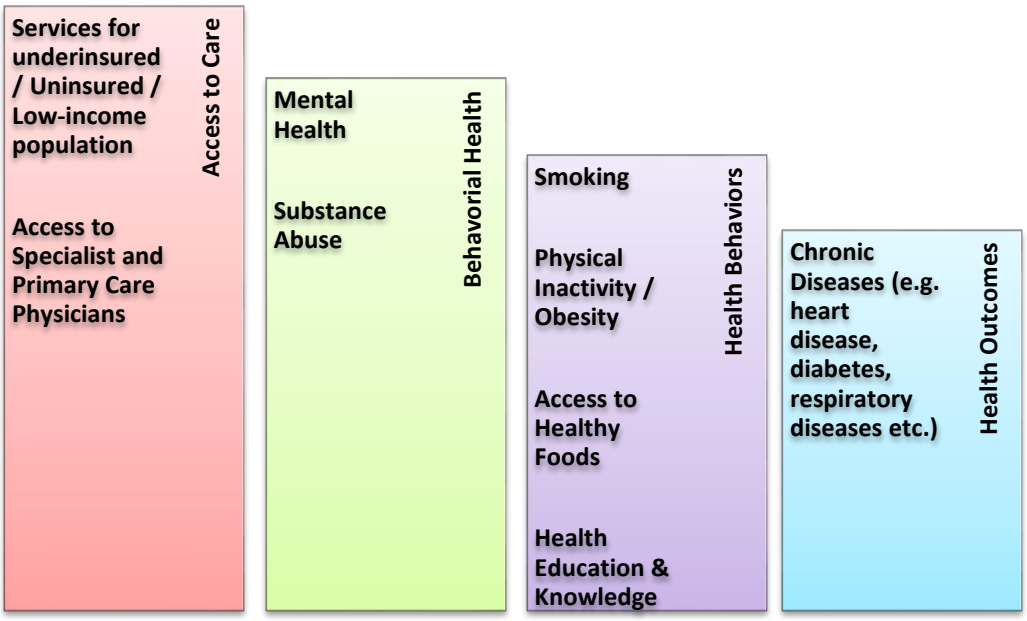
COMMUNITY IDENTIFIED NEEDS:

During the community planning forum process, forum participants discussed regional health needs that identified and focused on five themes. They were:[62]

1. **Access to Care (3)**
2. **Behavioral Health (3)**
3. **Health Behaviors (2)**
4. **Health Outcomes (2)**
5. **Transportation (2)**

Cancer and housing were additional themes that were discussed; however, with Lake Charles Memorial Health System's Cancer Center the identified cancer issues will be addressed in the cancer center's report findings. While housing was also identified at the community forum, participants discussed the overall limited availability of housing options for community residents.

Graph 30: Key Community Health Needs



[62] The number in parenthesis indicates the number of times each community need was mentioned from each of the three breakout groups.

Final CHNA Reports & Presentation

On June 10, 2016, Tripp Umbach presented the final findings from the CHNA to Lake Charles Memorial Health System. Top community health needs were identified by analyzing secondary data, primary data collected from key stakeholder interviews, hand-distributed surveys, provider health surveys, and a community forum. Tripp Umbach provided support to the prioritized needs with secondary data (where available) and consensus from primary data. A final report was developed that summarized key findings from the assessment process, including the final prioritized community needs.

Implementation Strategy and Planning

With the completion of the community health needs assessment, an implementation phase will begin with the onset of work sessions facilitated by Tripp Umbach. The work sessions will maximize system cohesion and synergies, during which leaders from Lake Charles Memorial Health System will be guided through a series of identified processes. The strategy planning process will ultimately result in the development of an implementation plan that will meet system and IRS standards.

Appendix B: Truven Health Analytics

Truven Health Analytics: Community Needs Index (CNI) Overview

Not-for-profit and community-based health systems have long considered a community's needs to be a core component of their mission of service to local communities. While specific initiatives designed to address health disparities vary across local communities (e.g., outreach to migrant farm workers, asthma programs for inner city children, etc.), the need to prioritize and effectively distribute hospital resources is a common thread among all providers.

Given the increased transparency of hospital operations (quality report cards, financial disclosures, etc.), community benefit efforts need to become increasingly strategic and targeted in order to illustrate to a variety of audiences how specific programs have been designed and developed. While local community needs assessments will always play a central role in this process, they are often voluminous, difficult to communicate, and may lack necessary qualitative and statistical justification for choosing specific communities as having the "greatest need."

Because of such challenges, Dignity Health and Truven Health jointly developed a Community Need Index (CNI) in 2004 to assist in the process of gathering vital socioeconomic factors in the community. The CNI is strongly linked to variations in community health care needs and is a strong indicator of a community's demand for various health care services.

Based on a wide array of demographic and economic statistics, the CNI provides a score for every populated ZIP code in the United States on a scale of 1.0 to 5.0. The CNI should be shared with community partners and used to justify grants or resource allocations for community initiatives.

Methodology

The CNI score is an average of five different barrier scores that measure various socioeconomic indicators of each community using the source data. The five barriers are listed below, along with the individual statistics that are analyzed for each barrier. The following barriers, and the statistics that comprise them, were carefully chosen and tested individually by both Dignity Health and Truven Health:

1. Income Barrier
    - Percentage of households below poverty line, with head of household aged 65 or older
    - Percentage of families, with children under age 18, below poverty line
    - Percentage of single female-headed families, with children under age 18, below poverty line
2. Cultural Barrier
    - Percentage of population that is a minority (including Hispanic ethnicity)
    - Percentage of population, over age 5, that speaks English poorly or not at all

3. Education Barrier

- Percentage of population, over age 25, without a high school diploma

4. Insurance Barrier

- Percentage of population in the labor force, age 16 or older, without employment
- Percentage of population without health insurance

5. Housing Barrier

- Percentage of households renting their home

Every populated ZIP code in the United States is assigned a barrier score of 1,2,3,4, or 5 depending upon the ZIP national rank (quintile). A score of 1 represents the lowest rank nationally for the statistics listed, while a score of 5 indicates the highest rank nationally. For example, ZIP codes that score a 1 for the Education Barrier contain highly educated populations; ZIP codes with a score of 5 have a very small percentage of high school graduates.

For the two barriers with only one statistic each (education and housing), Truven Health used only the single statistic listed to calculate the barrier score. For the three barriers with more than one component statistic (income, cultural and insurance), Truven Health analyzed the variation and contribution of each statistic for its barrier; Truven Health then weighted each component statistic appropriately when calculating the barrier score.

Once each ZIP code is assigned its barrier scores from 1 to 5, all five barrier scores for each ZIP code are averaged together to yield the CNI score. Each of the five barrier scores receives equal weight (20 percent each) in the CNI score. An overall score of 1.0 indicates a ZIP code with the least need, while a score of 5.0 represents a ZIP code with the most need.

Data Sources

- 2014 Demographic Data, The Nielsen Company
- 2014 Poverty Data, The Nielsen Company
- 2014 Insurance Coverage Estimates, Truven Health Analytics

Applications and Caveats

- CNI scores are not calculated for non-populated ZIP codes. These include such areas as national parks, public spaces, post office boxes and large unoccupied buildings.
- CNI scores for ZIP codes with small populations (especially less than 100 people) may be less accurate. This is due to the fact that the sample of respondents to the 2010 census is too small to provide accurate statistics for such ZIP codes.

Appendix C: General Description of Lake Charles Memorial Health System

General Description of Lake Charles Memorial Health System

Lake Charles Memorial Health System is the region's largest medical complex, serving the health care needs of Southwest Louisiana. Lake Charles Memorial Health System is locally-owned and operated by a Board of Trustees from the community it serves. The Hospital is a shareholder of Voluntary Hospitals of America (VHA), and is fully licensed by the Joint Commission on Accreditation of Healthcare Organizations. With over 1,500 employees and 250 physicians, the Hospital continues to be a pillar of the Lake Charles community, as the largest healthcare system and one of the largest employers in Lake Charles. The hospital has a main campus comprised of 301 beds and a separate campus comprised of 38 beds where the Memorial Hospital for Women is located. The health system also has a separately licensed long term care facility.

Lake Charles Memorial's logo of four interlocking hearts exemplifies the Hospital's dedicated mission of service, commitment, compassion and community.

Everything Your Healthcare Should Be is the mantra – reflecting the hope, passion and dedication Memorial has for improving and servicing the healthcare needs of our community.

General Description of Health System Cancer Center

The Cancer Center at Lake Charles Memorial Health System has cancer prevention services as well as early detection screenings. Lake Charles Memorial also offers diagnostic treatment, clinical options ranging from pain management to research to rehabilitation, and a patient navigator program. Lake Charles Memorial support services include dietary planning and discharge planning. Both patients and family members benefit from spiritual care, support services, home health services, and counseling.

Lake Charles Memorial has received accreditation from the American College of Surgeons Commission on Cancer (CoC). Lake Charles Memorial's Cancer Center has held CoC accreditation since 1993, renewed annually. Lake Charles Memorial also obtained an approval rating for the next three years based on seven commendations received because of compliance with 36 standards set forth by CoC. This is a voluntary program designating excellence and adherence to the high standards set forth by the Commission.

Lake Charles Memorial Cancer Center received a national award for quality in 2013: The Outstanding Achievement Award by the American College of Surgeons' (ACS) Commission on Cancer (CoC). The goal of this award is to identify centers that provide excellence in patient care. Only 74 accredited cancer treatment facilities in the United States were included in this list.

The oncologists, surgeons, hematologists, technicians, and registered nurses at Lake Charles Memorial are uniquely dedicated, qualified, and capable. Most importantly, Lake Charles Memorial is passionate about our work and tireless in our efforts to serve our patients with excellence.

Appendix D: Communities Served by Lake Charles Memorial Health System

Community Served by the Hospital

The Hospital is located in the city of Lake Charles, Louisiana in Calcasieu Parish. The City of Lake Charles is conveniently located off Interstate-10 between Houston, Texas and New Orleans, Louisiana and is 30 miles upstream from the Gulf of Mexico. Lake Charles is connected to the Gulf by means of a deep-water ship channel and is the seat and port of entry of Calcasieu Parish.

Lake Charles is the fifth-largest incorporated city in Louisiana, located on Lake Charles, Prien Lake and the Calcasieu River. Lake Charles is a cultural, industrial and educational center in the southwest region of the state. It is considered a major center of petrochemical refining, tourism, gaming and education, with McNeese State University and Sowela Technical Community College. Because of the lakes and waterways throughout the city, metropolitan Lake Charles is often referred to as *the Lake Area*.

Defined Community

A community is defined as the geographic area from which a significant number of the patients utilizing hospital services reside. While the community health needs assessment considers other types of health care providers, the Hospital is the single largest provider of acute care services. For this reason, the utilization of Hospital services provides the clearest definition of the community.

Table 19 represented the study area focus for the 2016 CHNA. The ZIP codes are based on 80 percent of Lake Charles Memorial's patient discharges. Over 70 percent of Lake Charles Memorial's discharges originate in Calcasieu Parish; however, Lake Charles Memorial's patients also derive from Allen, Beauregard, Cameron, and Jefferson Davis Parishes.

A detailed map of Lake Charles Memorial's geographical location and the markings of its community is pictured on the following map. The map displays the Hospital's defined community which relates to the 17 ZIP code areas that comprise the Hospital's community. These zip codes correspond with the geographic information on the map.

Table 19: 2016 CHNA ZIP Code Study Area

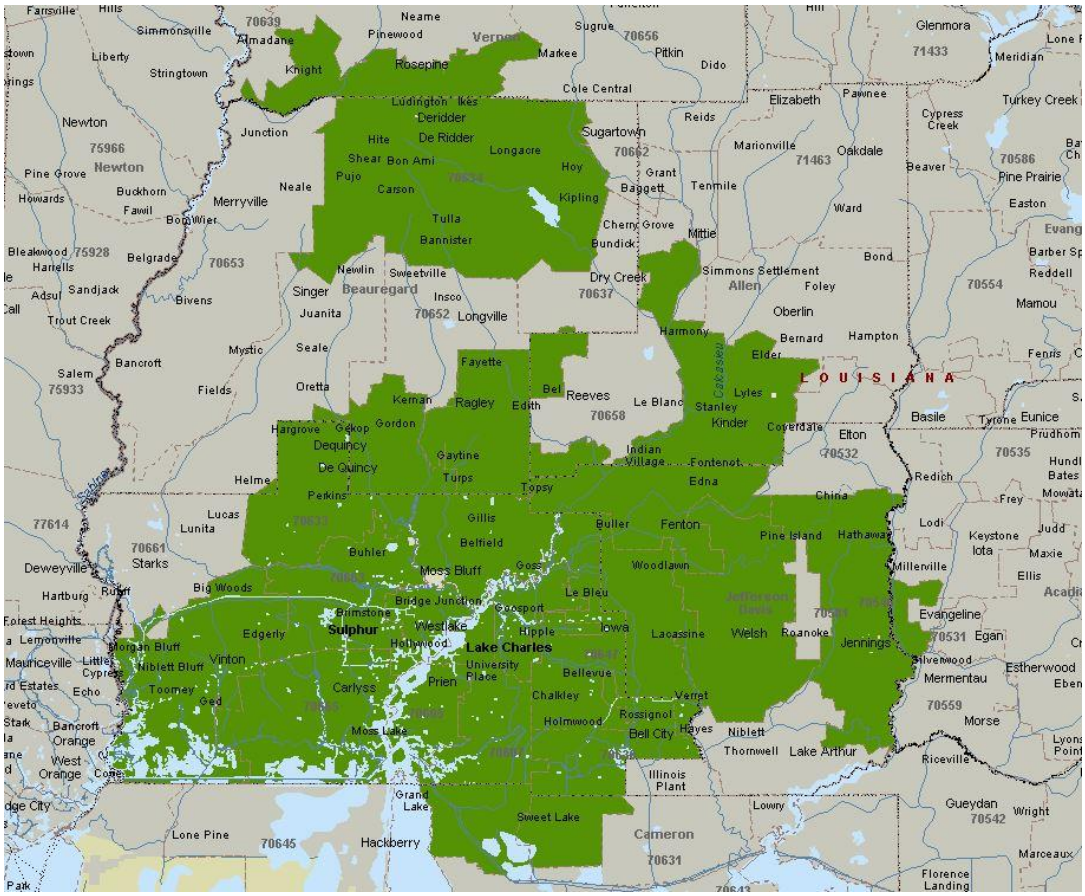
	ZIP Code	City		ZIP Code	City
1.	70601	Lake Charles	10.	70633	Dequincy
2.	70605	Lake Charles	11.	70668	Vinton
3.	70607	Lake Charles	12.	70634	DeRidder
4.	70663	Sulphur	13.	70630	Bell City
5.	70611	Lake Charles	14.	70546	Jennings
6.	70615	Lake Charles	15.	70657	Ragley
7.	70647	Iowa	16.	70591	Welsh
8.	70669	Westlake	17.	70648	Kinder

Community Details

Identification and Description of Geographical Community

The following map geographically illustrates Lake Charles' location and community by showing the community ZIP codes shaded. The majority of the community's population is concentrated in and around the city of Lake Charles.

Map 5: 2016 CHNA ZIP Code Study Area



Appendix E: Community Stakeholder Interviewees

Tripp Umbach completed 12 interviews with community stakeholders throughout the region to gain a deeper understanding of community health needs from organizations, agencies and government officials that have a deep understanding from their day-to-day interactions with populations in greatest need.

Interviews provide information about the community's health status, risk factors, service utilizations and community resource needs, as well as gaps and service suggestions.

Listed below in alphabetic order by last name are the community stakeholders.

Table 20: Community Stakeholders

	Name	Organization
1.	Anastasia Armstrong	National Alliance on Mental Health of South West Louisiana
2.	Patricia Bettis	Louisiana Cancer Prevention & Control
3.	Karl Bruchhaus	Calcasieu Parish School System
4.	Chief Donald Dixon	Lake Charles Police Department
5.	Denise Durel	United Way South West Louisiana
6.	Bertrand Foch, M.D.	Department of Health and Hospitals Regional 5 Public Health
7.	China Guillory	Families Helping Families
8.	Lenore Hayes	Lake Charles Memorial Cancer Center
9.	Sister Pauline Hurst	Greater St. Mary Missionary Baptist
10.	Patricia Prudhomme	Quality of Life for South West Louisiana
11.	Kayla Rigney	Calcasieu Community Clinic
12.	Mohammed Sarwar M.D.	Moss Memorial Health Clinic

Appendix F: Community Organizations and Partners

Lake Charles Memorial Health System came together to conduct a community health needs assessment (CHNA).

The primary data collected in the CHNA provided invaluable input and ongoing dedication to assisting Lake Charles Memorial Health System in identifying community health needs priorities and building a foundation upon which to develop strategies that will address the needs of residents in Lake Charles Memorial's community.

The listings below are the community organizations that assisted Lake Charles Memorial with the primary collection for the CHNA.

	Community Organizations and Partners
1.	Bureau of Family Health; Department of Health
2.	Calcasieu Community Clinic
3.	Calcasieu Parish School System
4.	Care Help of Sulphur
5.	Department of Health and Hospitals Regional 5 Public Health
6.	Families Helping Families
7.	Families Helping Families
8.	Greater St. Mary Missionary Baptist
9	Lake Charles Memorial Cancer Center
10.	Lake Charles Memorial Hospital
11.	Lake Charles Memorial Hospital Cancer Center
12.	Lake Charles Police Department
13.	Louisiana Cancer Prevention
14.	Louisiana Cancer Prevention & Control
15.	Moss Memorial Health Clinic
16.	Moss Memorial Health Clinical
17.	National Alliance on Mental Health of South West Louisiana
18.	Quality of Life for South West Louisiana
19.	Southwest Louisiana AIDS Council
20.	Southwest Louisiana Health Coalition
21.	Southwest Louisiana Sickle Cell Anemia, Inc.
22.	Tobacco Free Living
23.	United Way South West Louisiana
24.	Shepard's Inn Outreach

25.	Jennings Housing Authority
26.	Jeff Davis Communities Against Domestic Violence (C.A.D.A.)
27.	CON Lake Charles
28.	Louisiana Rehabilitation Services
29.	Beauregard CWJC

Appendix G: Working Group Members

The working group is charged with providing input, feedback, and advice on the identified health needs and health priorities from the 2016 community health needs assessment and the implementation strategy planning efforts.

Members of the working group were charged with providing direct feedback, comments and assisted in providing direction to Tripp Umbach to completing the necessary project pieces for the CHNA and implementation strategy planning. Members of the task force/working group are listed below.

Working Group Members:

1) Allan Abshire, Controller
2) Karla David, Administrative Director of Radiation Oncology
3) Lauren Davis, Community Outreach Specialist
4) Kathy DeRouen, Senior Vice President of Marketing
5) Fran Freedlund, Tumor Registry Manager
6) Lenore Hayes, Cancer Patient Navigator
7) Robert (Bob) Prehn, Vice President Specialty Services
8) Stuart Weatherford, Senior Accountant

Appendix H: Tripp Umbach

Consultants

Lake Charles Memorial Health System contracted with Tripp Umbach, a private health care consulting firm headquartered in Pittsburgh, Pennsylvania, with offices throughout the United States, in particular, Maryland, to complete a community health needs assessment (CHNA). Tripp Umbach has worked with more than 200 communities in all 50 states. In fact, more than one in five Americans lives in a community where our firm has worked in the past 20 years

From community needs assessment protocols to fulfilling the new Patient Protection and Affordable Care Act (PPACA) IRS 990 requirements, Tripp Umbach has turned needs assessments into practical action plans with sound implementation strategies, evaluation processes and funding recommendations for hundreds of communities. Tripp Umbach has helped more than 50 hospitals meet their IRS 990 requirements.

Changes introduced as a result of the PPACA have placed an increased level of importance on population health and well-being and on collaborative efforts between providers, public health agencies and community organizations to improve the overall health of communities.

Community Health Needs Assessment 2013

Lake Charles Memorial Hospital

Everything Your Healthcare Should Be.

BKD LLP
CPAs & Advisors

Lake Charles Memorial Hospital

Community Health Needs Assessment

January 2013

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Community Health Needs Assessment

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Introduction

IRC Section 501(r) requires health care organizations to assess the health needs of their communities and adopt implementation strategies to address identified needs. Per IRC Section 501(r), a byproduct of the *Affordable Care Act*, to comply with federal tax-exemption requirements, a tax-exempt hospital facility must:

- Conduct a community health needs assessment every three years.
- Adopt an implementation strategy to meet the community health needs identified through the assessment.
- Report how it is addressing the needs identified in the community health needs assessment and a description of needs that are not being addressed with the reasons why such needs are not being addressed.

The community health needs assessment must take into account input from persons who represent the broad interest of the community served by the hospital facility, including those with special knowledge of or expertise in public health. The hospital facility must make the community health needs assessment widely available to the public.

This community health needs assessment, which describes both a process and a document, is intended to document Lake Charles Memorial Hospital's (Hospital) compliance with IRC Section 501(r). Health needs of the community have been identified and prioritized so the Hospital may adopt an implementation strategy to address specific needs of the community.

The *process* involved:

- Collection and analysis of a large range of data, including demographic, socioeconomic and health statistics and health care resources.
- Interviews with key informants who represent a) broad interests of the community, b) populations of need or c) persons with specialized knowledge in public health.
- Conducting a health survey which gathered a wide range of information which was widely distributed to members of the community.

This *document* is a summary of all the available evidence collected during the initial cycle of community health needs assessments required by the IRS. It will serve as a compliance document as well as a resource until the next assessment cycle.

Both the process and document serve as the basis for prioritizing the community's health needs and will aid in planning to meet those needs.

Summary of Community Health Needs Assessment

The purpose of the community health needs assessment is to document compliance with new federal laws outlined above.

The Hospital engaged **BKD, LLP** to conduct a formal community health needs assessment. **BKD, LLP** is one of the largest CPA and advisory firms in the United States, with approximately 2,000 partners and employees in 29 offices. BKD serves more than 900 hospitals and health care systems across the county. The community health needs assessment was conducted from August 2012 through January 2013.

Based on current literature and other guidance from the treasury and the IRS, the following steps were conducted as part of Lake Charles Memorial Hospital's community health needs assessment:

- The "community" served by the Hospital was defined by utilizing inpatient and outpatient data regarding patient origin. This process is further described in Community Served by the Hospital.
- Population demographics and socioeconomic characteristics of the community were gathered and reported utilizing various third parties (see in *Appendices*). The health status of the community was then reviewed. Information on the leading causes of death and morbidity information was analyzed in conjunction with health outcomes and factors reported for the community by CountyHealthrankings.org. Health factors with significant opportunity for improvement were noted.
- An inventory of health care facilities and resources was prepared.
- Community input was provided through key informant interviews of 27 stakeholders and a community health survey was widely distributed. The Community Health Survey was completed by 106 individuals. Results and findings are described in the Key Informant and Community Health Survey of this report.
- Information gathered in the steps above was analyzed and reviewed to identify health issues of uninsured persons, low-income persons and minority groups and the community as a whole. Health needs were ranked utilizing a weighting method that weighs 1) the size of the problem, 2) the seriousness of the problem 3) the prevalence of common themes, 4) the impact of the problem on vulnerable populations, 5) how important the problem is to the community and 6) whether or not the Hospital has existing programs which respond to the identified need.
- Recommendations based on this assessment have been communicated to the Hospital.

General Description of Hospital

Lake Charles Memorial Hospital is the region's largest medical complex, serving the healthcare needs of Southwest Louisiana. Lake Charles Memorial Hospital is locally-owned and operated by a Board of Trustees from the community it serves. The Hospital is a shareholder of Voluntary Hospitals of America (VHA), and is fully licensed by the Joint Commission on Accreditation of Healthcare Organizations. With over 1,500 employees and 250 physicians, the Hospital continues to be a pillar of the Lake Charles community, as the largest healthcare system and one of the largest employers in Lake Charles. The hospital has a main campus comprised of 301 beds and a separate campus comprised of 38 beds where the Memorial Hospital for Women is located. The health system also has a separately licensed long term care facility.

Lake Charles Memorial Hospital's logo of four interlocking hearts exemplifies the Hospital's dedicated mission of service, commitment, compassion and community.

We Are Memorial: Everything Your Healthcare Should Be is the mantra – reflecting the hope, passion and dedication Memorial has for improving and servicing the healthcare needs of our community.

Community Served by the Hospital

The Hospital is located in the city of Lake Charles, Louisiana in Calcasieu Parish. The City of Lake Charles is conveniently located off Interstate-10 between Houston, Texas and New Orleans, Louisiana and is 30 miles upstream from the Gulf of Mexico. Lake Charles is connected to the Gulf by means of a deep-water ship channel and is the seat and port of entry of Calcasieu Parish.

Lake Charles is the fifth-largest incorporated city in Louisiana, located on Lake Charles, Prien Lake and the Calcasieu River. Lake Charles is a cultural, industrial and educational center in the southwest region of the state. It is considered a major center of petrochemical refining, tourism, gaming and education, with McNeese State University and Sowela Technical Community College. Because of the lakes and waterways throughout the city, metropolitan Lake Charles is often referred to as *the Lake Area*.

Defined Community

A community is defined as the geographic area from which a significant number of the patients utilizing hospital services reside. While the community health needs assessment considers other types of health care providers, the Hospital is the single largest provider of acute care services. For this reason, the utilization of Hospital services provides the clearest definition of the community. Over 70 percent of Lake Charles Memorial Hospital's discharges originate in Calcasieu Parish.

Based on the patient origin of acute care discharges from January 1, 2011, through December 31, 2011, management has identified the community to include all Calcasieu Parish zip codes listed in *Exhibit 1*. *Exhibit 1* presents the Hospital's patient origin and charges for each of the zip code areas in its community. Page 5 presents a detailed map of the Hospital's geographical location and the footprint of the community identified in *Exhibit 1*. The map displays the Hospital's defined community and identifies the 14 zip code areas that comprise the Hospital's community. These zip codes are listed with corresponding demographic information in *Exhibits 2* through *5*.

The geographic area of the defined community based on the identified zip codes for the community covers all of Calcasieu Parish. The community health needs assessment will utilize the information for Calcasieu Parish when specific information is not available for zip codes.

Exhibit 1
Lake Charles Memorial Hospital CHNA Community
Summary of Inpatient Discharges by Zip Code (Descending Order)
January 1, 2011 - December 31, 2011

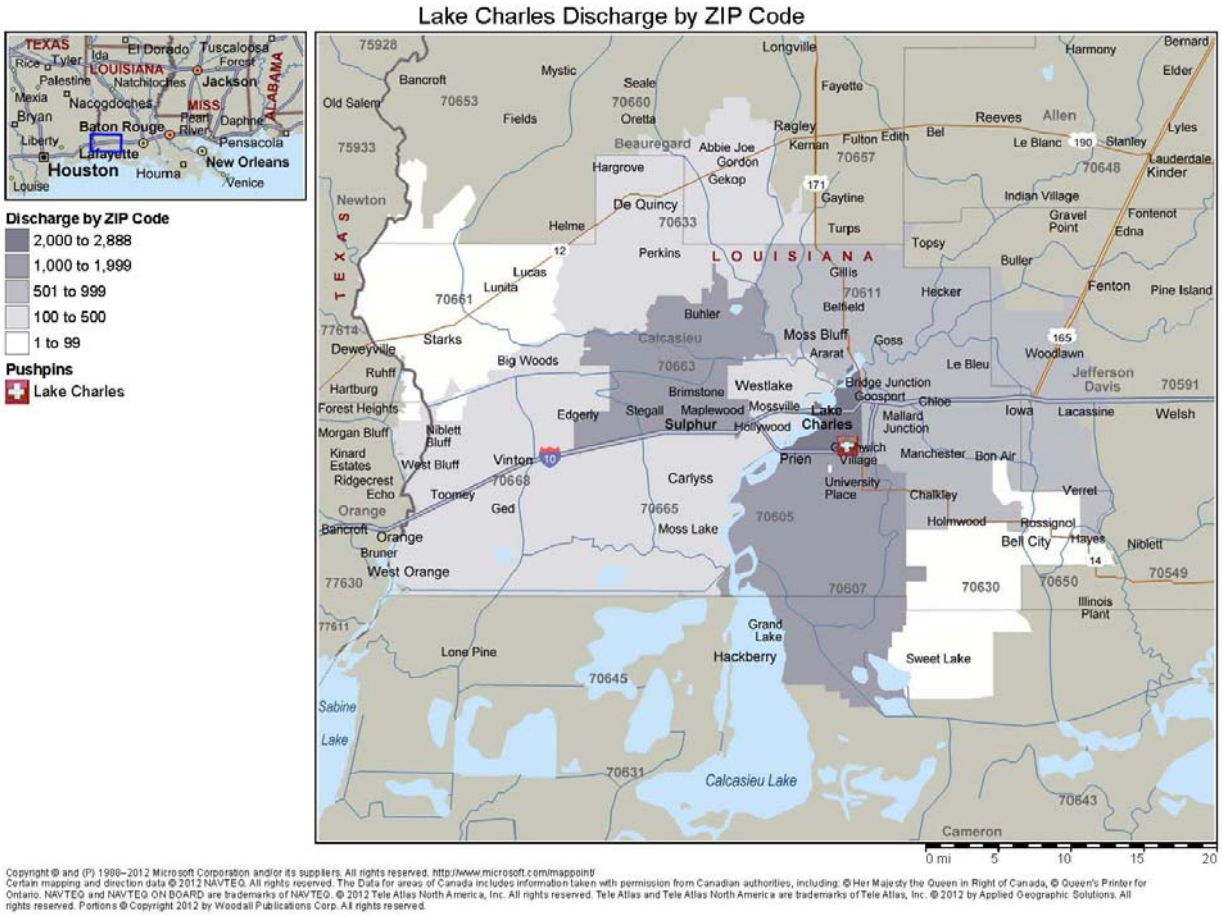
Zip Code	City	Discharges	Percent of Total Discharges
70601	Lake Charles	2,888	28.9%
70605	Lake Charles	1,562	15.6%
70607	Lake Charles	1,120	11.2%
70663	Sulphur	1,012	10.1%
70611	Lake Charles	883	8.8%
70615	Lake Charles	647	6.5%
70647	Iowa	551	5.5%
70669	Westlake	438	4.4%
70665	Sulphur	293	2.9%
70633	Dequincy	287	2.9%
70668	Vinton	204	2.0%
70661	Starks	67	0.7%
70630	Bell City	47	0.5%
70609	Lake Charles	2	0.0%
	Total	10,001	100.0%

Source: Lake Charles Memorial Hospital

Community Details

Identification and Description of Geographical Community

The following map geographically illustrates the Hospital's location and community by showing the community zip codes shaded. The bulk of the community's population is concentrated in and around the city of Lake Charles.



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Community Population and Demographics

The U.S. Bureau of Census has compiled population and demographic data based on the 2010 census. The Nielsen Company, a firm specializing in the analysis of demographic data, has extrapolated this data by zip code to estimate population trends from 2012 through 2017. Population estimates by age and zip code for the Hospital's community are presented after the map in *Exhibit 2*.

Exhibit 2 illustrates that the overall population is projected to decrease slightly over the five-year period from 200,811 to 199,719. However, the age category that utilizes health care services the most, 65 years and over, is projected to increase from 24,963 to 27,321. The projected changes to the composition of the total community, between male and female, is projected to remain approximately the same over the five-year period.

As stated above, data reported in *Exhibits 2-5* is based on the 2010 census data which has been extrapolated to estimate trends from 2012 through 2017. This information does not include increases in population due to a projected economic boom for Southwest Louisiana. A report published by the Louisiana State University, Division of Economic Development titled "The Louisiana Economic Outlook: 2013 and 2014" projects Lake Charles to add 2,300 jobs in 2013 and another 2,800 jobs in 2014. The report references expansion in the chemical firms due to increased exports and the ground-breaking of the new Ameristar Casino which is projected to hire 1,500 people. Projected economic growth for Lake Charles and Southwest Louisiana will likely increase the need for additional primary care physicians and specialists as well as medical and emergency services provided by the Hospital.

Exhibit 2
Lake Charles Memorial Hospital CHNA Community
Estimated 2012 Population and Projected 2017 Population

Zip Code	City	Under 15 years	15-44 years	45-64 years	65 years and over	Total	Male	Female
				Estimated 2012 Population				
70601	Lake Charles	6,990	12,230	7,588	4,746	31,554	14,871	16,683
70605	Lake Charles	6,263	12,636	9,256	4,643	32,798	15,785	17,013
70607	Lake Charles	5,793	10,504	5,853	2,370	24,520	11,991	12,529
70663	Sulphur	6,026	10,940	7,194	3,547	27,707	13,497	14,210
70611	Lake Charles	4,324	7,978	5,372	1,861	19,535	9,628	9,907
70615	Lake Charles	2,760	6,059	3,439	1,641	13,899	7,286	6,613
70647	Iowa	2,101	3,987	2,545	1,092	9,725	4,777	4,948
70669	Westlake	2,203	4,118	2,762	1,334	10,417	5,117	5,300
70665	Sulphur	2,510	4,383	2,889	1,188	10,970	5,452	5,518
70633	Dequincy	1,945	3,520	2,028	1,157	8,650	4,385	4,265
70668	Vinton	1,389	2,481	1,627	854	6,351	3,118	3,233
70661	Starks	496	789	592	313	2,190	1,085	1,105
70630	Bell City	380	748	495	215	1,838	927	911
70609	Lake Charles	1	648	6	2	657	276	381
PROVIDER SERVICE AREA		43,181	81,021	51,646	24,963	200,811	98,195	102,616
				Projected 2017 Population				
70601	Lake Charles	6,611	11,265	7,035	4,594	29,505	13,982	15,523
70605	Lake Charles	6,539	12,767	9,222	5,349	33,877	16,313	17,564
70607	Lake Charles	5,602	9,934	5,788	2,646	23,970	11,735	12,235
70663	Sulphur	6,033	10,611	6,990	3,828	27,462	13,386	14,076
70611	Lake Charles	4,446	7,884	5,399	2,293	20,022	9,848	10,174
70615	Lake Charles	2,720	5,787	3,266	1,739	13,512	7,071	6,441
70647	Iowa	2,168	3,998	2,650	1,257	10,073	4,941	5,132
70669	Westlake	2,209	4,052	2,624	1,456	10,341	5,071	5,270
70665	Sulphur	2,620	4,421	2,927	1,419	11,387	5,636	5,751
70633	Dequincy	1,959	3,464	1,992	1,248	8,663	4,398	4,265
70668	Vinton	1,409	2,406	1,544	900	6,259	3,066	3,193
70661	Starks	486	754	512	340	2,092	1,033	1,059
70630	Bell City	394	757	540	250	1,941	977	964
70609	Lake Charles	-	607	6	2	615	259	356
PROVIDER SERVICE AREA		43,196	78,707	50,495	27,321	199,719	97,716	102,003

Source: The Nielsen Company

Exhibit 2.1 provides the percent difference for each zip code from estimated 2012 to projected 2017 as well as the ability to compare the percent difference to the state of Louisiana and the United States for comparison purposes. *Exhibit 2.1* illustrates that the overall population is projected to decrease by less than one percent over the five-year period compared to projected overall increases for Louisiana at 2.3 percent and the United States at approximately five percent. Note the age category that utilizes health care services the most, 65 years and over, is projected to increase by more than nine percent. This increase in the 65 year and over category will have a dramatic impact on both the amount and type of services required by the community.

Exhibit 2.1
Lake Charles Memorial Hospital CHNA Community
Estimated 2012 Population Versus Projected 2017 Population Percent Difference

Zip Code	City	Under 15 years	15-44 years	45-64 years	65 years and over	Total	Male	Female
				Percent Difference				
70601	Lake Charles	-5.4%	-7.9%	-7.3%	-3.2%	-6.5%	-6.0%	-7.0%
70605	Lake Charles	4.4%	1.0%	-0.4%	15.2%	3.3%	3.3%	3.2%
70607	Lake Charles	-3.3%	-5.4%	-1.1%	11.6%	-2.2%	-2.1%	-2.3%
70663	Sulphur	1.4%	-3.0%	-5.1%	5.4%	-1.4%	-1.7%	-1.2%
70611	Lake Charles	2.8%	-1.2%	0.5%	23.2%	2.5%	2.3%	2.7%
70615	Lake Charles	-1.4%	-4.5%	-5.0%	6.0%	-2.8%	-3.0%	-2.6%
70647	Iowa	4.4%	0.9%	1.3%	19.4%	3.8%	3.4%	4.2%
70669	Westlake	-100.0%	-6.3%	0.0%	0.0%	-6.4%	-6.2%	-6.6%
70665	Sulphur	-2.0%	-4.4%	-13.5%	8.6%	-4.5%	-4.8%	-4.2%
70633	Dequincy	0.3%	-1.6%	-5.0%	9.1%	-0.7%	-0.9%	-0.6%
70668	Vinton	3.7%	1.2%	9.1%	16.3%	5.6%	5.4%	5.8%
70661	Starks	0.7%	-1.6%	-1.8%	7.9%	0.2%	0.3%	0.0%
70630	Bell City	3.2%	0.3%	4.1%	15.1%	3.6%	3.4%	3.7%
70609	Lake Charles	0.1%	-3.0%	-2.8%	7.9%	-0.9%	-0.8%	-0.9%
PROVIDER SERVICE AREA		0.0%	-2.9%	-2.2%	9.4%	-0.5%	-0.5%	-0.6%
LA 2012 Estimated (1,000s)		951	1,886	1,171	561	4,569	2,223	2,346
LA 2017 Projected (1,000s)		976	1,868	1,188	640	4,672	2,276	2,396
PERCENT DIFFERENCE		2.6%	-1.0%	1.5%	14.1%	2.3%	2.4%	2.1%
U.S. 2012 Estimated (1,000s)		63,291	128,312	81,242	40,251	313,096	154,450	158,646
U.S. 2017 Projected (1,000s)		65,816	127,615	85,317	46,509	325,257	160,511	164,746
PERCENT DIFFERENCE		4.0%	-0.5%	5.0%	15.5%	3.9%	3.9%	3.8%

Source: The Nielsen Company

Certain characteristics of a population can be factors in determining the health care services required by a community. The following is an analysis of the age distribution of the population for the primary community. The analysis is provided by zip code and provides a comparison to Louisiana and the United States.

Exhibit 2.2
Lake Charles Memorial Hospital CHNA Community
Estimated 2012 Population Versus Projected 2017 Population with Percent Totals

Zip Code	City	Under 15 years	15-44 years	45-64 years	65 years and over	Total	Male	Female
					Estimated 2012 Population			
70601	Lake Charles	22.2%	38.8%	24.0%	15.0%	100.0%	47.1%	52.9%
70605	Lake Charles	19.1%	38.5%	28.2%	14.2%	100.0%	48.1%	51.9%
70607	Lake Charles	23.6%	42.8%	23.9%	9.7%	100.0%	48.9%	51.1%
70663	Sulphur	21.9%	39.1%	25.6%	13.4%	100.0%	49.1%	50.9%
70611	Lake Charles	22.1%	40.8%	27.5%	9.5%	100.0%	49.3%	50.7%
70615	Lake Charles	19.9%	43.6%	24.7%	11.8%	100.0%	52.4%	47.6%
70647	Iowa	22.9%	40.0%	26.3%	10.8%	100.0%	49.7%	50.3%
70669	Westlake	0.2%	98.6%	0.9%	0.3%	100.0%	42.0%	58.0%
70665	Sulphur	22.6%	36.0%	27.0%	14.3%	100.0%	49.5%	50.5%
70633	Dequincy	21.1%	39.5%	26.5%	12.8%	100.0%	49.1%	50.9%
70668	Vinton	20.7%	40.7%	26.9%	11.7%	100.0%	50.4%	49.6%
70661	Starks	22.5%	40.7%	23.4%	13.4%	100.0%	50.7%	49.3%
70630	Bell City	21.6%	41.0%	26.2%	11.2%	100.0%	49.1%	50.9%
70609	Lake Charles	21.7%	39.5%	26.0%	12.8%	100.0%	48.7%	51.3%
TOTAL PROVIDER SERVICE AREA		21.5%	40.3%	25.7%	12.4%	100.0%	48.9%	51.1%
					Projected 2017 Population			
70601	Lake Charles	22.4%	38.2%	23.8%	15.6%	100.0%	47.4%	52.6%
70605	Lake Charles	19.3%	37.7%	27.2%	15.8%	100.0%	48.2%	51.8%
70607	Lake Charles	23.4%	41.4%	24.1%	11.0%	100.0%	49.0%	51.0%
70663	Sulphur	22.5%	38.4%	24.7%	14.4%	100.0%	49.0%	51.0%
70611	Lake Charles	22.2%	39.4%	27.0%	11.5%	100.0%	49.2%	50.8%
70615	Lake Charles	20.1%	42.8%	24.2%	12.9%	100.0%	52.3%	47.7%
70647	Iowa	23.0%	38.8%	25.7%	12.5%	100.0%	49.5%	50.5%
70669	Westlake	0.0%	98.7%	1.0%	0.3%	100.0%	42.1%	57.9%
70665	Sulphur	23.2%	36.0%	24.5%	16.3%	100.0%	49.4%	50.6%
70633	Dequincy	21.4%	39.2%	25.4%	14.1%	100.0%	49.0%	51.0%
70668	Vinton	20.3%	39.0%	27.8%	12.9%	100.0%	50.3%	49.7%
70661	Starks	22.6%	40.0%	23.0%	14.4%	100.0%	50.8%	49.2%
70630	Bell City	21.5%	39.7%	26.3%	12.5%	100.0%	49.1%	50.9%
70609	Lake Charles	22.0%	38.6%	25.5%	13.9%	100.0%	48.7%	51.3%
TOTAL PROVIDER SERVICE AREA		0.216284	39.4%	25.3%	13.7%	100.0%	48.9%	51.1%
ESTIMATED 2012		21.5%	40.3%	25.7%	12.4%	100.0%	48.7%	51.3%
PROJECTED 2017 POPULATION		21.6%	39.4%	25.3%	13.7%	100.0%	48.7%	51.3%
PERCENT DIFFERENCE		0.0%	-2.9%	-2.2%	9.4%	-0.5%	-0.5%	-0.6%
LOUISIANA 2012		20.8%	41.3%	25.6%	12.3%	100.0%	48.7%	51.3%
UNITED STATES 2012		20.2%	41.0%	25.9%	12.9%	100.0%	49.3%	50.7%

Source: The Nielsen Company

Very similar to the 10 percent growth seen in the overall number of people in the 65 year and over category in *Exhibit 2.1*, *Exhibit 2.2* indicates that as a percent of total population for the community, the 65 year and over category will make up nearly 14 percent of the total population in 2017 compared to the nearly 12.5 percent in 2012.

While the relative age of the community population can impact community health needs, so can the ethnicity and race of a population. The following *Exhibit 3* shows the population of the community by ethnicity by illustrating the Hispanic versus Non-Hispanic residents. In total, the population breakdown for the community is very comparable to the state of Louisiana.

Exhibit 3
Lake Charles Memorial Hospital CHNA Community
Estimated 2012 Population Versus Projected 2017 Population with Percent Difference

		Estimated 2012			Projected 2017			% Difference		% Total	
Zip Code	City	Hispanic	Non-Hispanic	Total	Hispanic	Non-Hispanic	Total	Hispanic	Non-Hispanic	Hispanic	Non-Hispanic
70601	Lake Charles	881	30,673	31,554	1,006	28,499	29,505	14.2%	-7.1%	3.4%	96.6%
70605	Lake Charles	985	31,813	32,798	1,203	32,674	33,877	22.1%	2.7%	3.6%	96.4%
70607	Lake Charles	895	23,625	24,520	1,053	22,917	23,970	17.7%	-3.0%	4.4%	95.6%
70663	Sulphur	904	26,803	27,707	1,090	26,372	27,462	20.6%	-1.6%	4.0%	96.0%
70611	Lake Charles	495	19,040	19,535	603	19,419	20,022	21.8%	2.0%	3.0%	97.0%
70615	Lake Charles	262	13,637	13,899	293	13,219	13,512	11.8%	-3.1%	2.2%	97.8%
70647	Iowa	223	9,502	9,725	272	9,801	10,073	22.0%	3.1%	2.7%	97.3%
70669	Westlake	283	10,134	10,417	327	10,014	10,341	15.5%	-1.2%	3.2%	96.8%
70665	Sulphur	215	10,755	10,970	262	11,125	11,387	21.9%	3.4%	2.3%	97.7%
70633	Dequincy	128	8,522	8,650	154	8,509	8,663	20.3%	-0.2%	1.8%	98.2%
70668	Vinton	187	6,164	6,351	238	6,021	6,259	27.3%	-2.3%	3.8%	96.2%
70661	Starks	26	2,164	2,190	34	2,058	2,092	30.8%	-4.9%	1.6%	98.4%
70630	Bell City	30	1,808	1,838	30	1,911	1,941	0.0%	5.7%	1.5%	98.5%
70609	Lake Charles	18	639	657	17	598	615	-5.6%	-6.4%	2.8%	97.2%
PROVIDER SERVICE AREA		5,532	195,279	200,811	6,582	193,137	199,719	19.0%	-1.1%	3.3%	96.7%
Louisiana (1,000s)		209	4,360	4,569	255	4,417	4,672	22.0%	1.3%	5.5%	94.5%
U.S. (1,000s)		53,183	259,912	313,095	60,902	264,355	325,257	14.5%	1.7%	18.7%	81.3%

Source: The Nielsen Company

Exhibit 4 shows the population of the community by race by illustrating three different categories, white, black and other residents. In total, the population breakdown for the community is very comparable to the state of Louisiana. A review of the specific zip code areas does show a relatively large percentage of black residents in the Lake Charles zip code areas compared to other zip codes in the community.

Exhibit 4
Lake Charles Memorial Hospital CHNA Community
Estimated 2012 Population Versus Projected 2017 Population with Percent Difference

		Estimated 2012				Projected 2017				Percent Difference				Percent Total		
Zip Code	City	White	Black	Other	Total	White	Black	Other	Total	White	Black	Other	Total	White	Black	Other
70601	Lake Charles	9,245	20,806	1,503	31,554	7,888	19,974	1,643	29,505	-14.7%	-4.0%	9.3%	-6.5%	26.7%	67.7%	5.6%
70605	Lake Charles	28,077	2,611	2,110	32,798	28,215	3,052	2,610	33,877	0.5%	16.9%	23.7%	3.3%	83.3%	9.0%	7.7%
70607	Lake Charles	14,465	8,501	1,554	24,520	13,235	8,942	1,793	23,970	-8.5%	5.2%	15.4%	-2.2%	55.2%	37.3%	7.5%
70663	Sulphur	24,831	1,796	1,080	27,707	24,264	1,916	1,282	27,462	-2.3%	6.7%	18.7%	-0.9%	88.4%	7.0%	4.7%
70611	Lake Charles	17,687	1,098	750	19,535	17,888	1,228	906	20,022	1.1%	11.8%	20.8%	2.5%	89.3%	6.1%	4.5%
70615	Lake Charles	5,670	7,672	557	13,899	5,433	7,469	610	13,512	-4.2%	-2.6%	9.5%	-2.8%	40.2%	55.3%	4.5%
70647	Iowa	7,811	1,512	402	9,725	7,863	1,722	488	10,073	0.7%	13.9%	21.4%	3.6%	78.1%	17.1%	4.8%
70669	Westlake	8,574	1,474	369	10,417	8,429	1,473	439	10,341	-1.7%	-0.1%	19.0%	-0.7%	81.5%	14.2%	4.2%
70665	Sulphur	10,055	540	375	10,970	10,174	743	470	11,387	1.2%	37.6%	25.3%	3.8%	89.3%	6.5%	4.1%
70633	Dequincy	7,155	1,253	242	8,650	7,090	1,289	284	8,663	-0.9%	2.9%	17.4%	0.2%	81.8%	14.9%	3.3%
70668	Vinton	5,284	806	261	6,351	5,164	785	310	6,259	-2.3%	-2.6%	18.8%	-1.4%	82.5%	12.5%	5.0%
70661	Starks	2,098	48	44	2,190	2,003	40	49	2,092	-4.5%	-16.7%	11.4%	-4.5%	95.7%	1.9%	2.3%
70630	Bell City	1,738	39	61	1,838	1,815	46	80	1,941	4.4%	17.9%	31.1%	5.6%	93.5%	2.4%	4.1%
70609	Lake Charles	325	274	58	657	275	283	57	615	-15.4%	3.3%	-1.7%	-6.4%	44.7%	46.0%	9.3%
PROVIDER SERVICE AREA		143,015	48,430	9,366	200,811	139,736	48,962	11,021	199,719	-2.3%	1.1%	17.7%	-0.5%	70.0%	24.5%	5.5%
Louisiana (1,000s)		2,835	1,475	259	4,569	2,833	1,535	304	4,672	-0.1%	4.1%	17.4%	2.3%	60.6%	32.9%	6.5%
U.S. (1,000s)		224,843	39,675	48,577	313,095	228,281	41,779	55,198	325,258	1.5%	5.3%	13.6%	3.9%	70.2%	12.8%	17.0%

Source: The Nielsen Company

Socioeconomic Characteristics of the Community

The socioeconomic characteristics of a geographic area influence the way residents access health care services and perceive the need for health care services within society. The economic status of an area may be assessed by examining multiple variables within the community. The following exhibits are a compilation of data that includes household income, labor force, employees by types of industry, employment rates, educational attainment and poverty for the community served by the Hospital. These standard measures will be used to compare the socioeconomic status of the county internally as well as to the state.

Income and Employment

Exhibit 5 presents the average, median and per capita income for households in each zip code. Average and median income is projected to increase by approximately one to six percent between 2012 and 2017, while the average per capita is projected to increase approximately two to six percent.

Exhibit 5
Lake Charles Memorial Hospital CHNA Community
Estimated Family Income and Wealth for 2012 and 2017 With Percent Difference

		Estimated 2012			Projected 2017			Percent Difference		
Zip Code	City	Avg. Household Income	Median Household Income	Avg. Per Capita Income	Avg. Household Income	Median Household Income	Avg. Per Capita Income	Avg. Household Income	Median Household Income	Avg. Per Capita Income
70601	Lake Charles	$ 40,049	$ 28,261	$ 16,889	$ 40,600	$ 28,558	$ 17,226	1.4%	1.1%	2.0%
70605	Lake Charles	$ 79,502	$ 58,661	$ 32,277	$ 81,375	$ 59,932	$ 33,278	2.4%	2.2%	3.1%
70607	Lake Charles	$ 49,983	$ 39,469	$ 19,896	$ 51,137	$ 40,140	$ 20,430	2.3%	1.7%	2.7%
70663	Sulphur	$ 54,411	$ 45,401	$ 21,307	$ 55,787	$ 46,060	$ 22,036	2.5%	1.5%	3.4%
70611	Lake Charles	$ 68,416	$ 56,094	$ 24,745	$ 70,057	$ 57,125	$ 25,492	2.4%	1.8%	3.0%
70615	Lake Charles	$ 45,834	$ 35,485	$ 16,076	$ 47,133	$ 36,346	$ 16,613	2.8%	2.4%	3.3%
70647	Iowa	$ 52,645	$ 42,930	$ 19,131	$ 54,645	$ 44,089	$ 19,943	3.8%	2.7%	4.2%
70669	Westlake	$ 55,436	$ 45,128	$ 21,668	$ 56,825	$ 45,947	$ 22,507	2.5%	1.8%	3.9%
70665	Sulphur	$ 68,340	$ 55,567	$ 24,733	$ 70,747	$ 57,329	$ 25,829	3.5%	3.2%	4.4%
70633	Dequincy	$ 46,880	$ 36,952	$ 17,345	$ 48,454	$ 37,842	$ 18,167	3.4%	2.4%	4.7%
70668	Vinton	$ 44,687	$ 37,331	$ 17,641	$ 45,645	$ 37,908	$ 18,313	2.1%	1.5%	3.8%
70661	Starks	$ 47,452	$ 39,057	$ 19,169	$ 49,918	$ 40,102	$ 20,215	5.2%	2.7%	5.5%
70630	Bell City	$ 59,225	$ 49,926	$ 21,732	$ 62,649	$ 52,717	$ 23,053	5.8%	5.6%	6.1%
70609	Lake Charles	$ -	$ -	$ 2,994	$ -	$ -	$ 2,994	-	-	0.0%
	Louisiana	$ 55,854	$ 41,263	$ 21,842	$ 57,952	$ 42,511	$ 22,908	3.8%	3.0%	4.9%
	United States	$ 67,315	$ 49,581	$ 25,919	$ 69,219	$ 50,850	$ 26,693	2.8%	2.6%	3.0%

Source: The Nielsen Company

Exhibit 6 presents the average annual resident unemployment rates for Calcasieu Parish, in Louisiana and the United States. As *Exhibit 6* illustrates, unemployment rates for Calcasieu Parish ran favorably when compared to the state and national averages.

Exhibit 6
Lake Charles Memorial Hospital CHNA Community
Unemployment Rates (%)
2007-2011

County	2007	2008	2009	2010	2011
Calcasieu Parish	3.6	4.0	6.1	7.1	6.9
Louisiana	3.8	4.4	6.6	7.5	7.4
United States	4.6	5.8	9.3	9.6	9.0

Source: FDIC

Lake Charles is a major petrochemical refining center and is also a popular gaming center. Many of the residents work in the region's petrochemical refineries. Some of the notable companies in the region are Conoco Philips, PPG Industries and Citgo Petroleum Corporation. Manufacturing is also part of the economy. *Exhibit 7* summarizes employment by major industry for Lake Charles.

Exhibit 7
Lake Charles Memorial Hospital CHNA Community
Employment by Major Industry
2010

Major Industries	Calcasieu Parish	%	US %
Goods-producing	767	26.7%	14.7%
Natural resources and mining	134	4.7%	1.4%
Construction	311	10.8%	4.3%
Manufacturing	322	11.2%	9.0%
Service-providing	1,356	47.2%	68.4%
Trade, transportation and utilities	785	27.3%	19.1%
Information	11	0.4%	2.1%
Financial activities	92	3.2%	5.8%
Professional and business services	75	2.6%	13.1%
Education and health services	275	9.6%	14.6%
Leisure and hospitality	40	1.4%	10.2%
Other services	78	2.7%	3.4%
Federal Government	46	1.6%	2.3%
State Government	63	2.2%	3.6%
Local Government	640	22.3%	11.0%
Total Employment	2,872	100%	100%

Source: U.S. Department of Census

Major employers for Calcasieu Parish include the following:

Exhibit 8
Major Parish Employers

Top Employers	Industry Classification	Total # of Employees
Calcasieu Parish School System	Public Elementary & Secondary Schools	5,000
L'Auberge du Lac Casino Resort	Casino/Hotel/Entertainment	2,400
PPG Industries Group, LLC	Alkalis & Chlorine Manufacturer	1,250
Lake Charles Memorial Hospital	General Medical & Surgical Hospital	1,670
CITGO Petroleum Corporation	Petroleum Refinery	1,160
Isle of Capri Casino	Casino/Hotel/Entertainment	1,155
City of Lake Charles	City Government	1,032
Calcasieu Parish Sheriff's Office	Law Enforcement/Protection	972
CHRISTUS St. Patrick's Hospital	Hospital	871
ConocoPhillips Manufacturing	Petroleum Refinery	770
McNeese State University	Colleges & Universities/ Academic	738
Delta Downs Racetrack, Casino and Hotel	Casino/Hotel/Entertainment	684
West Calcasieu Cameron Hospital	Hospital	650
Calcasieu Parish Police Jury	County Government	625

Source: SWLA Economic Development Alliance

Poverty

Exhibit 9 presents the percentage of total population in poverty (including under age 18) and median household income for households in Calcasieu Parish versus the state of Louisiana and the United States.

Exhibit 9
Lake Charles Memorial Hospital CHNA Community
Poverty Estimate: Percentage of Total Population in Poverty and Median Household Income
2010 and 2011

County	2010 All Persons	2010 Under Age 18	2010 Median Household Income	2011 All Persons	2011 Under Age 18	2011 Median Household Income
Calcasieu Parish	16.4%	23.9%	$ 45,534	17.6%	24.2%	$ 40,928
Louisiana	17.6%	24.8%	$ 42,460	18.8%	27.4%	$ 42,510
United States	14.3%	20.0%	$ 50,221	15.3%	21.6%	$ 50,046

Source: U.S. Census Bureau, Small Areas Estimates Branch

Exhibit 9 presents the percentage of total population in poverty and median household. In 2010, a family of two adults and two children was considered poor if their annual household income fell below $22,050 and Louisiana is consistently ranked one of the poorest states in the country. Poverty rates for Calcasieu Parish rank favorably when compared to the state averages.

Uninsured

Exhibit 10 presents health insurance coverage status by age (under 65 years) and income (at or below 400 percent) of poverty for Calcasieu Parish versus the state of Louisiana and the United States.

Exhibit 10
Lake Charles Memorial Hospital CHNA Community
Health Insurance Coverage Status by Age (Under 65 years) and Income (At or Below 400%) of Poverty
2010

	All Income Levels				At or Below 400% of FPL			
County	Uninsured	Percent Uninsured	Insured	Percent Insured	Uninsured	Percent Uninsured	Insured	Percent Insured
Calcasieu Parish	30,076	18.2%	135,352	81.8%	26,406	22.9%	89,057	77.1%
Louisiana	793,782	20.5%	3,076,118	79.5%	699,099	25.8%	2,013,098	74.2%

Source: U.S. Census Bureau, Small Area Insurance Estimates

Education

Exhibit 11 presents educational attainment for individuals in each Calcasieu Parish versus the state of Louisiana and the United States.

Exhibit 11
Lake Charles Memorial Hospital CHNA Community
Educational Attainment by Age - Total Population
2010

State/ County	
Completing High School	
Calcasieu Parish	81.6%
Louisiana	81.0%
United States	85.0%
Bachelor's Degree or More	
Calcasieu Parish	19.2%
Louisiana	20.9%
United States	27.9%

Source: U.S. Census Bureau, Current Population Survey

Education levels obtained by community residents may impact the local economy. Higher levels of education generally lead to higher wages, less unemployment and job stability. These factors may indirectly influence community health. Persons aged 25 and older have similar educational attainment compared to the state as a whole. *Exhibit 11* indicates approximately 20 percent of the population for Calcasieu Parish obtain a Bachelor's degree or more which is about the same as the state's average. Levels reported in *Exhibit 10* are significantly less than National averages.

Community Health Care Resources

The availability of health resources is a critical component to the health of a parish's residents and a measure of the soundness of the area's health care delivery system. An adequate number of health care facilities and health care providers is vital for sustaining a community's health status. Fewer health care facilities and health care providers can impact the timely delivery of services. A limited supply of health resources, especially providers, results in the limited capacity of the health care delivery system to absorb charity and indigent care as there are fewer providers upon which to distribute the burden of indigent care. This section will address the availability of health care resources to the residents Calcasieu Parish.

Hospitals

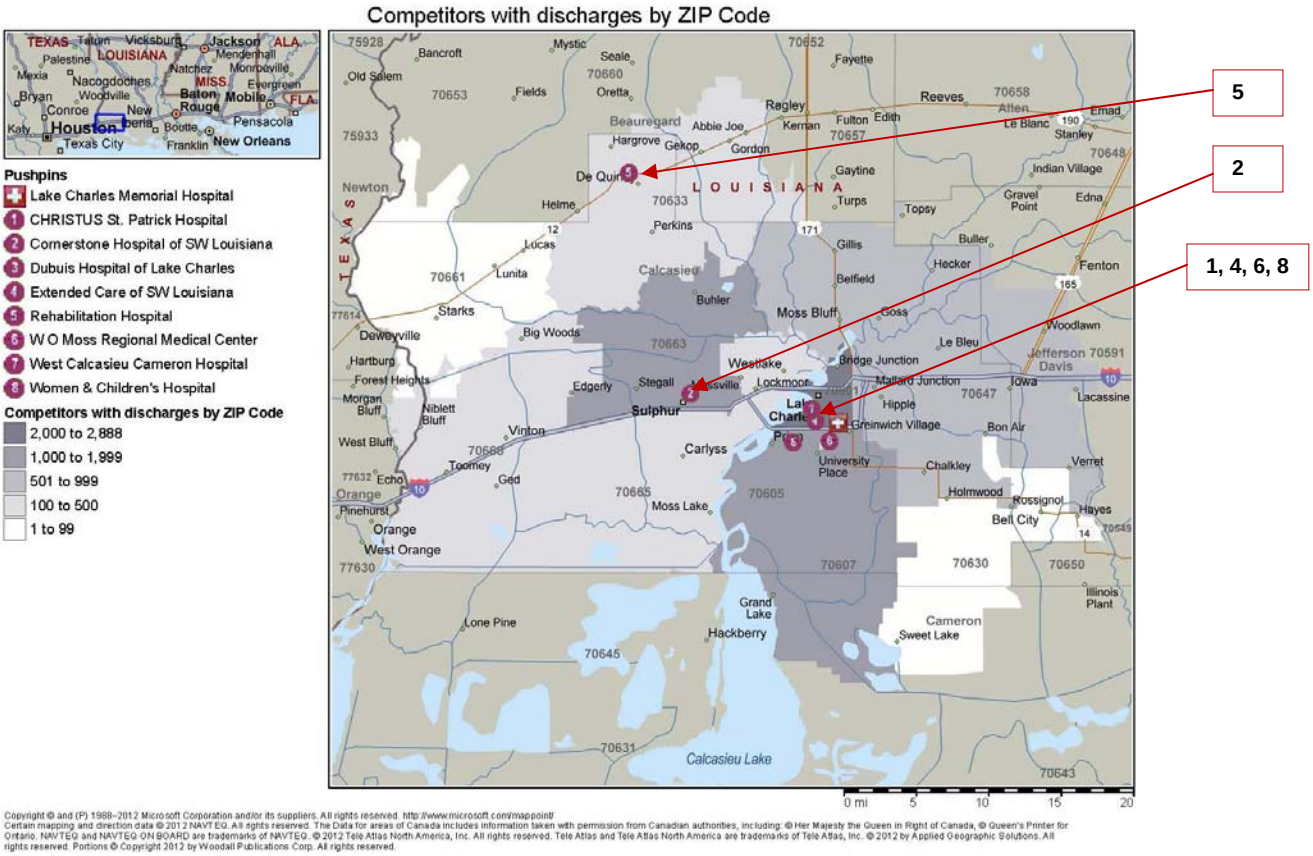
The Hospital has 250 acute beds and is the main provider of medical services in the parish. *Exhibit 12* summarizes hospital services available to the residents of Calcasieu Parish:

Exhibit 12
Lake Charles Memorial Hospital CHNA Community
Summary of Acute Care Hospitals

		Facility Type*	Miles from Memorial*	Bed Size*	Annual Discharges*	Annual Patient Revenue (000's)*
1	CHRISTUS St. Patrick Hospital	Short Term Acute Care	2.6	135	7,478	$ 538,928,857
2	Cornerstone Hospital of Southwest Louisiana	Long Term	12.7	28	313	$ 26,668,522
3	Dubuis Hospital of Lake Charles	Long Term	2.7	24	223	$ 18,282,823
4	Extended Care of Southwest Louisiana	Long Term	1.7	29	199	$ 16,686,475
+	Lake Charles Memorial Hospital	Short Term Acute Care	0	250	8,435	$ 641,253,248
5	Rehabilitation Hospital of DeQuincy (Triparish Rehab Hospital)	Rehabilitation	29.7	33	501	$ 16,875,788
6	W O Moss Regional Medical Center	Short Term Acute Care	1.9	15	927	$ 50,264,136
7	West Calcasieu - Cameron Hospital	Short Term Acute Care	12.8	102	3,327	$ 147,315,248
8	Women & Children's Hospital	Short Term Acute Care	4.7	108	3,427	$ 265,921,312

*Information based on latest available Medicare cost report

Source: Costreportdata.com



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Other Licensed Facilities and Providers

There are facilities other than licensed hospitals in the City of Lake Charles which provide health services. There are minimal facilities who provide addiction assistance, mental health counseling, family planning, other medical services, physical health services and prescription assistance. A complete inventory may be obtained through the City of Lake Charles-Department of Community Development Services Community & Family Resource Guide of Southwest Louisiana at www.cityoflakecharles.com.

Health Department

The Louisiana Department of Health and Hospitals Office of Public Health is comprised of 1,300 professionals across Louisiana who are charged with protecting and promoting the health of the communities of our state. Engineers, doctors, chemists, biologists, nurses, sanitarians, clinicians, emergency preparedness experts and a host of other professionals work constantly to:

- Monitor the food Louisiana's residents and visitors eat
- Keep our water safe to drink
- Fight chronic and communicable disease
- Ensure we are ready for hurricanes, disasters and other threats
- Ensure access to vital records like birth certificates
- Offer preventive health services

The Calcasieu Parish Health Unit operates a clinic in Lake Charles. A schedule of clinic hours and services is available at http://new.dhh.louisiana.gov/assets/oph/Center-PHCH/Center-CH/regions/CalcasieuLkeChrls_PHU_Hrs.pdf.

Federally Qualified Health Center

SWLA Center for Health Services provides primary and preventive health care and support services. The Center operates a facility in Lake Charles, Louisiana and Lafayette, Louisiana and a satellite site in Crowley.

Medical services, along with a network of ancillary and supportive services, are delivered by an efficient clinical staff in an environment accredited by the Joint Commission for the Accreditation of Health Care Organizations.

- Obstetrics/Gynecology
- Pediatrics
- Family Medicine
- Women's Health and Wellness
- KidMed (well baby care)
- WIC
- Immunizations
- Nutrition Counseling
- Case Management
- Pharmacy
- Dentistry
- Laboratory
- HIV Testing and Education
- Health Education
- Breast Feeding Counseling
- Fitness Promotion

Health Status of the Community

This section of the assessment reviews the health status of Calcasieu Parish residents. As in the previous section, comparisons are provided with the state of Louisiana and the United States. This in-depth assessment of the mortality and morbidity data, health outcomes, health factors and mental health indicators of the parish residents that make up the community will enable the Hospital to identify priority health issues related to the health status of its residents.

Good health can be defined as a state of physical, mental and social well-being, rather than the absence of disease or infirmity. According to *Healthy People 2020*, the national health objectives released by the U.S. Department of Health and Human Services, individual health is closely linked to community health. Community health, which includes both the physical and social environment in which individuals live, work and play, is profoundly affected by the collective behaviors, attitudes and beliefs of everyone who lives in the community. Healthy people are among a community's most essential resources.

Numerous factors have a significant impact on an individual's health status: lifestyle and behavior, human biology, environmental and socioeconomic conditions, as well as access to adequate and appropriate health care and medical services. Studies by the American Society of Internal Medicine conclude that up to 70 percent of an individual's health status is directly attributable to personal lifestyle decisions and attitudes. Persons who do not smoke, who drink in moderation (if at all), use automobile seat belts (car seats for infants and small children), maintain a nutritious low-fat, high-fiber diet, reduce excess stress in daily living and exercise regularly have a significantly greater potential of avoiding debilitating diseases, infirmities and premature death.

The interrelationship among lifestyle/behavior, personal health attitude and poor health status is gaining recognition and acceptance by both the general public and health care providers. Some examples of lifestyle/behavior and related health care problems include the following:

Lifestyle	Primary Disease Factor
Smoking	Lung cancer Cardiovascular disease Emphysema Chronic bronchitis
Alcohol/drug abuse	Cirrhosis of liver Motor vehicle crashes Unintentional injuries Malnutrition Suicide Homicide Mental illness
Poor nutrition	Obesity Digestive disease Depression

Lifestyle	Primary Disease Factor
Driving at excessive speeds	Trauma Motor vehicle crashes
Lack of exercise	Cardiovascular disease Depression
Overstressed	Mental illness Alcohol/drug abuse Cardiovascular disease

Health problems should be examined in terms of morbidity as well as mortality. Morbidity is defined as the incidence of illness or injury and mortality is defined as the incidence of death. However, law does not require reporting the incidence of a particular disease, except when the public health is potentially endangered.

Due to limited morbidity data, this health status report relies heavily on death and death rate statistics for leading causes of death in Calcasieu Parish and the state of Louisiana. Such information provides useful indicators of health status trends and permits an assessment of the impact of changes in health services on a resident population during an established period of time. Community attention and health care resources may then be directed to those areas of greatest impact and concern.

Leading Causes of Death

Exhibit 13 reflects the leading causes of death for Calcasieu Parish residents and compares the rates, per thousand, to the state of Louisiana average rates, per thousand.

Exhibit 13
Lake Charles Memorial Hospital CHNA Community
Selected Causes of Resident Deaths: Number and Rate (2009)

	Calcasieu Number	Rate*	Louisiana Number	Rate	United States Rate
Total Deaths, All Causes	1,775	933.8	40,069	892.0	741.1
Disease of the Heart	557	293.0	9,971	222.0	195.2
Malignant Neoplasm	363	193.0	8,901	198.1	184.9
Accidents	78	41.0	2,027	45.1	37.3
Cerebrovascular Diseases	64	33.7	2,015	44.9	38.9
Chronic Lower Respiratory Diseases	47	24.7	1,854	41.3	42.3

Sources: Louisiana Center for Records and Statistics
National Vital Statistics-1999, Volume 49, Number 8

Maternal and Child Health

Louisiana had the second-highest rate of infant mortality in the nation in 2009 according to the Annie E. Casey Foundation Kids Count Data Center. *Exhibit 13.1* reflects fetal, infant, child and adolescent mortality rates for Calcasieu Parish. The infant mortality rate for Calcasieu Parish is slightly higher than the state average. The black infant mortality rate is significantly higher than the state average.

Exhibit 13.1
Calcasieu Parish Louisiana 2007 - 2009
Fetal, Infant, Child and Adolescent Mortality Rates

Age at Death	White	Black	Other	All Races	LA
Fetal	3.8	11.0	*	6.1	5.4
Perinatal	3.8	6.5	*	4.8	6.3
Neonatal	3.8	4.2	*	4.1	5.1
Post neonatal	3.7	8.8	-	5.2	3.9
Infant	7.5	13.0	*	9.3	9.0
1-4 years	22.8	64.7	-	33.7	42.5
5-9 years	*	*	-	15.0	18.3
10-14 years	45.6	*	-	36.3	26.2
15-19 years	98.4	76.7	-	89.6	87.9
20-24 years	154.0	113.7	-	139.4	143.0

Exhibit 13.2 reflects low birth weight and prematurity rates for Calcasieu Parish. The infant mortality rate for Calcasieu Parish is slightly higher than the state average. Low birth weight is higher than the state average for Calcasieu Parish, with rates for black infants significantly higher than the state average.

Exhibit 13.2
Calcasieu Parish Louisiana 2007 - 2009
Low Birth Rate and Prematurity

Indicator	White	Black	Other	All Races	LA
Very low birth weight (< 1500 grams) (%)	1.6	3.0	*	2.0	2.1
Low birth weight (< 2500 grams) (%)	9.7	14.0	11.4	11.1	10.9
Pre-term weight < 32 weeks gestational age (%)	1.7	2.8	*	2.0	2.3
Pre-term births 32-36 weeks gestational age (%)	9.5	10.6	7.8	9.8	10.3
Total pre-term births < 37 weeks gestational age (%)	11.2	13.4	9.6	11.8	12.6

Source: Louisiana Department of Health and Hospitals: Maternal and Child Health Data Indicators 2009

Health Outcomes and Factors

An analysis of various health outcomes and factors for a particular community can, if improved, help make that community a healthier place to live, learn, work and play. A better understanding of the factors that affect the health of the community will assist with how to improve the community's habits, culture and environment. This portion of the community health needs assessment utilizes information from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project, a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute.

The County Health Rankings model is grounded in the belief that programs and policies implemented at the local, state and federal levels have an impact on the variety of factors that, in turn, determine the health outcomes for communities across the nation. The model provides a ranking method that ranks all 50 states and the counties within each state, based on the measurement of two types of health outcomes for each county: how long people live (mortality) and how healthy people feel (morbidity). These outcomes are the result of a collection of health factors and are influenced by programs and policies at the local, state and federal levels.

Counties/Parishes in each of the 50 states are ranked according to summaries of a variety of health measures. Those having high ranks, *e.g.* 1 or 2, are considered to be the "healthiest". Counties are ranked relative to the health of other counties in the same state on the following summary measures:

- Health Outcomes--rankings are based on an equal weighting of one length of life (mortality) measure and four quality of life (morbidity) measures.
- Health Factors--rankings are based on weighted scores of four types of factors:
    - Health behaviors (six measures)
    - Clinical care (five measures)
    - Social and economic (seven measures)
    - Physical environment (four measures)

A more detailed discussion about the ranking system, data sources and measures, data quality and calculating scores and ranks can be found at the website for County Health Rankings (www.countyhealthrankings.org).

As part of the analysis of the needs assessment for the community, the relative health status of Calcasieu Parish will be compared to the state of Louisiana as well as to a national benchmark. A better understanding of the factors that affect the health of the community will assist with how to improve the community's habits, culture and environment.

The following tables, from County Health Rankings, summarize the 2011 health outcomes for Calcasieu Parish which comprises the majority of the community of Lake Charles Memorial Hospital. Each measure is described and includes a confidence interval or error margin surrounding it – if a measure is above the state average and the state average is beyond the error margin for the county, then further investigation is recommended.

Calcasieu Parish

Health Outcomes--rankings are based on an equal weighting of one length of life (mortality) measure and four quality of life (morbidity) measures. While most of Calcasieu Parish health outcomes were comparable to the state of Louisiana (ranking out of 64 counties), each measure was significantly below national benchmarks with opportunities for improvement.

Exhibit 14
Lake Charles Memorial Hospital CHNA Community
Calcasieu Parish Health Rankings - Health Outcomes (2012)

	Calcasieu Parish	Error Margin	National Benchmark	LA	Rank (of 64)
Mortality					45
Premature death - Years of potential life lost before age 75 per 100,000 population (age-adjusted)	11,366	10,820-11,912	5,466	10,361	
Morbidity					19
Poor or fair health - Percent of adults reporting fair or poor health (age-adjusted)	18%	17-20%	10%	19%	
Poor physical health days - Average number of physically unhealthy days reported in past 30 days (age-adjusted)	3.7	3.4-4.0	2.6	3.7	
Poor mental health days - Average number of mentally unhealthy days reported in past 30 days (age-adjusted)	3.2 4.2	2.8-3.6 3.4-5.0	2.3 2.3	3.2 4.3	
Low birth weight - Percent of live births with low birth weight (<2500 grams)	10.3%	9.9-10.7%	6.0%	11.0%	

Source: Countyhealthrankings.org

A number of different health factors shape a community's health outcomes. The County Health Rankings model includes four types of health factors: health behaviors, clinical care, social and economic and the physical environment.

The following table summarizes the health factors for Calcasieu Parish and shows that Calcasieu Parish has significant room for improvement in the following areas:

- Health behavior/adult obesity
- Health behavior/adult smoking
- Health behavior/physical inactivity
- Health behavior/sexually transmitted diseases
- Health behavior/teen birth rate
- Clinical care/primary care physicians
- Social and economic factors/children in poverty and children in single parent households

Exhibit 14.1
Lake Charles Memorial Hospital CHNA Community
Calcasieu Parish Health Rankings - Health Factors (2012)

	Calcasieu Parish	Error Margin	National Benchmark	LA	Rank (of 64)
Health Behaviors					**28**
Adult smoking - Percent of adults that report smoking at least 100 cigarettes and that they currently smoke	24.0%	22-26%	14%	22.0%	
Adult obesity - Percent of adults that report a BMI >= 30	35.0%	32-38%	25%	33.0%	
Physical inactivity - percent of adults aged 20 and over reporting no leisure time physical activity	30.0%	28-32%	21%	30.0%	
Excessive drinking - Percent of adults that report excessive drinking in the past 30 days	16.0%	14-18%	8%	15.0%	
Motor vehicle crash death rate - Motor vehicle deaths per 100K population	24.0	21-27	12	22.0	
Sexually transmitted infections - Chlamydia rate per 100K population	544.0		84	626.0	
Teen birth rate - Per 1,000 female population, ages 15-19	60.0	58-62	22	55.0	
Clinical Care					**6**
Uninsured adults - Percent of population under age 65 without health insurance	18.0%	16-19%	11%	20.0%	
Primary care physicians - Ratio of population to primary care physicians	1,223:1		631:1	1,111:1	
Preventable hospital stays - Hospitalization rate for ambulatory-care sensitive conditions per 1,000 Medicare enrollees	80.0	76-83	49	93.0	
Diabetic screening - Percent of diabetic Medicare enrollees that receive HbA1c screening	80.0%	76-83%	89%	79.0%	
Mammography screening - Percent of female Medicare enrollees that receive mammography screening	66.0%	62-70%	74%	63.0%	
Social & Economic Factors					**13**
High school graduation - Percent of ninth grade cohort that graduates in 4 years	77.0%	-	-	67.0%	
Some college - Percent of adults aged 25-44 years with some post-secondary education	52.0%	49-54%	68%	52.0%	
Unemployment - percent of population 16+ unemployed but seeking work	7.0%		5.4%	7.5%	
Children in poverty - Percent of children under age 18 in poverty	24.0%	20-28%	13%	27.0%	
Inadequate social support - Percent of adults without social/emotional support	20.0%	18-23%	14%	23.0%	
Children in single-parent households - Percent of children that live in household headed by single parent	34.0%	31-37%	20%	41.0%	
Violent crime rate - violent crime rate per 100,000 population (age-adjusted)	-	-	73	676.0	
Physical Environment					**50**
Air pollution-particulate matter days - Annual number of unhealthy air quality days due to fine particulate matter	5	-	-	4	
Air pollution-ozone days - Annual number of unhealthy air quality days due to ozone	9	-	-	7	
Limited access to healthy foods - percent of population who are low-income and do not live close to a grocery store	14.0%	-	0%	14.0%	
Fast food restaurants - percent of all restaurants that are fast food establishments	62.0%	-	25%	53.0%	
Access to recreational facilities - Rate of recreational facilities per 100,000 population	9.0	-	16	9.0	

Source: Countyhealthrankings.org

Key Informant Interviews

Interviewing key informants (community stakeholders) is a technique employed to assess public perceptions of the county's health status and unmet needs. These interviews are intended to ascertain opinions among individuals likely to be knowledgeable about the community and influential over the opinions of others about health concerns in the community.

Methodology

Interviews with 28 key informants were conducted over a two-day period in September 2012. Interviewees were determined based on their a) specialized knowledge or expertise in public health, b) their affiliation with local government, schools and industry or c) their involvement with underserved and minority populations.

A representative from Lake Charles Memorial Hospital contacted all individuals nominated for interviewing. His knowledge of the community, and the personal relationships he held with the potential interviewees added validity to the data collection process. If the respective key informant agreed to an interview, an interview time and place was scheduled. Most of the interviews were conducted at Lake Charles Memorial Hospital. In some instances, interviews were conducted at the interviewees' workplace.

All interviews were conducted using a standard questionnaire. A copy of the interview instrument is included in the *Appendices*. A summary of their opinions is reported without judging the truthfulness or accuracy of their remarks. Community leaders provided comments on the following issues:

- Health and quality of life for residents of the primary community
- Barriers to improving health and quality of life for residents of the primary community
- Opinions regarding the important health issues that Calcasieu Parish residents and the types of services that are important for addressing these issues
- Delineation of the most important health care issues or services discussed and actions necessary for addressing those issues

Interview data was initially recorded in narrative form in Microsoft Word. Themes in the data were identified and representative quotes have been drawn from the data to illustrate the themes. Interviewees were assured that personal identifiers such as name or organizational affiliations would not be connected in any way to the information presented in this report. Therefore, quotes included in the report may have been altered slightly to preserve confidentiality.

This technique does not provide a quantitative analysis of the leaders' opinions, but reveals some of the factors affecting the views and sentiments about overall health and quality of life within the community.

Key Informant Profiles

Key informants from the community (see *Appendix A* for a list of key informants) worked for the following types of organizations and agencies:

- Social service agencies
- Local school system and community college
- Local city and county government
- Public health agencies
- Industry
- Faith community
- Medical providers

These health care and nonhealth care professionals provided insight into the health status of Lake Charles and Calcasieu Parish through a 12-question interview (refer to the *Appendices*).

Key Informant Interview Results

As stated earlier, the interview questions for each key informant were identical. The questions on the interview instrument are grouped into four major categories for discussion:

1. General opinions regarding health and quality of life in the community
2. Underserved populations and communities of need
3. Barriers to health care
4. Most important health and quality of life issues

A summary of the leaders' responses by each of these categories follows. Paraphrased quotes are included to reflect some commonly held opinions and direct quotes are employed to emphasize strong feelings associated with the statements. This section of the report summarizes what the key informants said without assessing the credibility of their comments.

1. General opinions regarding health and quality of life in the community

The key informants were asked to rate the health and quality of life in their respective county. They were also asked to provide their opinion whether the health and quality of life had improved, declined or stayed the same over the past few years. Lastly, key informants were asked to provide support for their answers.

Nearly 100 percent of the key informants rated the health and quality of life in their county as "good", "fair" or "5 on scale of 1 to 10". Even though the key informants consistently reported the health and quality of life was good, interviewees repeatedly noted there were extreme diversities in health and quality of life for certain residents within the community. Economic circumstances are seen to contribute largely to the diversities.

When asked whether the health and quality of life had improved, declined or stayed the same, 14 key informants noted health and quality of life had improved over the last few years. Most of the remaining key informants noted health and quality of life had stayed the same over the last few years.

Key informants noted that expanded services at Lake Charles Memorial Hospital and other medical providers contributed to the overall improvement of health and quality of life in the community. Additionally, key informants noted the general population is becoming more educated regarding health issues.

Almost all key informants had concerns with the potential reduction of services and/or closing of Moss Regional. Shortages of primary care physicians as well as neurologists were noted. Obesity, high blood pressure, and diabetes were repeatedly referred to as chronic health conditions of the community. Many key informants noted these health conditions are a result of the Louisiana culture which celebrates food.

A high infant- mortality rate for Calcasieu Parish was a concern raised by several key informants. Increased education and awareness regarding maternal health and preconception care was noted as a need in the Lake Charles community

Several key informants highlighted activities of The Partnership for a Healthier Southwest Louisiana. The Partnership for a Healthier Southwest Louisiana is comprised of members including the local health department, employers, schools, local government and local healthcare providers. The partnership recently raised almost $2,000,000 to fund programs targeting obesity in youth and adults in Louisiana.

Key informants voiced concerns the availability of mental health services in the community.

There was concern regarding healthcare reform and the continued pressure being put on healthcare facilities. Key informants voicing these concerns felt that access to healthcare will continue to be an issue in the Lake Charles community due to funding cuts. Concerns were raised that with all of the funding cuts, programs will continue to be eliminated. If programs are eliminated, people will go without.

Overall, key informants value Lake Charles Memorial Hospital's impact on community health and recognize the Hospital as an asset to the community. The regional culture, surrounding healthy habits, or lack thereof, was generally seen as the reason behind poor health and quality of life. Lack of access was seen as an issue for certain populations.

"We like good eats and a good time. We enjoy things."

"The community has limitations on the availability of specialty services."

"Electronic Health Records is one thing that has improved quality of care."

"The potential closure of Moss or reduction of services a major risk in community."

"Mental Health is a big problem with funding cuts because of budget issues."

2. Underserved populations and communities of need

Key informants were asked to provide their opinions regarding specific populations or groups of people whose health or quality of life may not be as good as others. We also asked the key informants to provide their opinions as to why they thought these populations were underserved or in need. We asked each key informant to consider the specific populations they serve or those with which they usually work. Responses to this question varied.

Key informants felt the quality of life and health was greatly impacted based on socioeconomic status. The majority of key informants noted the health and quality of life were not as good for individuals with low income and/or no insurance. Additionally, healthy nutrition for children in these households was limited due to the cost of fruits and vegetables.

The elderly population is faced with challenges with accessing care due to limited transportation, fixed income and pride.

"The culture contributes to obesity. There is an emphasis on good food."

"Moss Regional has cut services, so services are not available to the uninsured. These people can't go to Lafayette. They can't afford to drive there and many of them don't have cars. Services need to be local."

3. Barriers

The key informants were asked what barriers or problems keep community residents from obtaining necessary health services in their community. Responses from key informants include culture, lack of education regarding health issues, lack of transportation and lack of knowledge surrounding how to access care.

Lack of education and communication surrounding health issues and the availability of health resources is seen as a primary barrier to health services. People do not understand how to access services and there is limited media access for the local community to receive information regarding education and screenings offered.

Transportation was also noted as a barrier to healthcare; particularly for persons without Medicaid. Persons with disabilities and the elderly may have issues with transportation due to limited services. Public transportation is sometimes unreliable and it causes issues when individuals need to arrive in time for scheduled appointments. It was noted that persons may have difficulty with scheduling transportation and the Senior Circle program does not have a handicapped accessible vehicle.

Some key informants noted a barrier regarding the location of screenings and educational programs. It was noted that certain members of the community will not go to a doctor's office or hospital, but would be more receptive to receive health information and or screenings at church.

"People just don't know about proper nutrition, exercise, screenings, etc."

"Services provided by the state and federal government are being cut. Public health agencies are losing employees. When you don't have programs, people go without."

"It is hard to get African-American males to go to the doctor. They don't go for checkups."

4. Most important health and quality of life issues

Key informants were asked to provide their opinion as to the most critical health and quality of life issues facing the county. The issue identified most frequently was obesity, which is mainly due to eating habits.

Other issues that were reported for the general population were a shortage of certain specialists, substance abuse and transportation concerns. Heart disease, diabetes and high-blood pressure were reported as primary health conditions impacting the community.

"Obesity in Lake Charles is striking."

"You don't think of Lake Charles and think healthy."

Key Findings

A summary of themes and key findings provided by the key informants follows:

- Quality of health is improving due to new technologies and the availability of services in Lake Charles versus sending patients out of the area for treatment and care.
- Chronic conditions noted include heart disease, high blood pressure and diabetes.
- Many of the key informants noted an increase in specialists to the area as improving health. They noted Lake Charles Memorial Hospital's CEO has really helped bring in specialists.
- Almost all respondents noted the negative impact due to Moss Regional closing. Key informants are aware of the pressures the remaining two hospital facilities are facing.
- Health disparities were noted for low income and uninsured populations.
- Too many people are utilizing the emergency rooms for care. Continuing access to care is an issue. Persons may receive care at the emergency room, but they are unable to receive follow-up doctor appointments, tests, and prescriptions.
- Many key informants felt education was key to improving health. Several noted that churches should be utilized to get the message out, sites for screenings, and health education events.
- Transportation is a barrier to obtaining health services.
- People do not know where to go for health services and what services are available. More coordination among health providers may help.
- Critical health issues include obesity, substance abuse, lack of wellness and transportation.
- Community assets include the region's culture, people in the community, strong economic conditions/low unemployment and the number of hospitals for the size of the community.

Community Health Survey

A community survey was conducted by the Hospital in order to gather broad community input regarding health issues. The survey was launched on September 11, 2012, and was closed on December 15, 2012.

The broad survey was intended to gather information regarding the overall health of the community. The results of this survey yield information on different health and community factors. Areas surveyed include demographics and socioeconomic characteristics, behavioral risk factors, health conditions and access to health resources

Methodology

A web-based survey tool, Question Pro, was utilized to conduct an electronic survey. Paper surveys, which were identical to the electronic survey, were also distributed to populations who may not have access to the internet or generationally are more likely to complete a paper survey. Electronic and paper surveys were circulated to the residents of the primary community. Scheduled below is the survey distribution report.

Exhibit 16
Lake Charles Memorial Hospital CHNA Community
Summary of Web-Based and Paper-Based Survey

Organization	Type of Organization	Type of Survey
Health Department	Health/Healthcare	Paper surveys to patients
Southwest Louisiana Health Center	Health/Healthcare	Paper surveys to patients
Lake Charles Memorial Hospital	Health/Healthcare	Link to web-based survey via hospital website and Facebook page
Memorial Milestones Magazine	Health/Healthcare	Article and link to web-based survey
Council on Aging	Services to Elderly	Paper surveys
Various Physician Offices	Health/Healthcare	Paper surveys to patients

There were 106 completed and returned comprised of 44 electronic surveys and 62 paper surveys. Socio-demographic characteristics such as age, education, income and employment status were fairly comparable to the most recent census data. Over 77 percent of the survey respondents were female which is more than the 50 percent of the population that is female in the community.

Survey Instrument

The survey instrument used for this study is based largely on the Centers for Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System (BRFSS), as well as various other public health surveys and customized questions. The final survey instrument was developed by Lake Charles Memorial Hospital representatives in conjunction with BKD.

Community Health Survey Results

The actual survey was quite detailed in nature, including many specific questions regarding general health, satisfaction with specific and general providers and demographic information. A compilation of the actual survey results has also been included in the *Appendices* for each question to allow for a more detailed analysis. Health needs indicated by the survey results are:

- ***Assessment of Personal Health***

  When asked to assess their personal health status, 18 percent of the respondents described their health as being "excellent", while 46 percent stated their overall health was "good." Nine percent of the respondents described their health as being "poor."

  When asked to rate their community as a "healthy community", less than 15 percent of the respondents indicated their community was healthy or very healthy. More than 25 percent of the respondents indicated their community was unhealthy.

  (See Questions 15 and 34 of Community Health Survey)

- ***Health Care Access Issues***

  Almost 90 percent of the respondents reported having health insurance. Health care access issues are primarily related to costs. Respondents noted the following reasons for not receiving medical care:

  1. Deductible or co-pay was too high
  2. Health insurance did not cover procedure or test
  3. Insurance premiums are too high

  Only seven percent of respondents noted they did not receive medical care because they were unable to schedule an appointment when needed.

  Respondents felt the most needed physician services in the county were general and family practice, internal medicine and cardiologists.

  (See Questions 13, 19, 20 and 23 of Community Health Survey)

- ***Lifestyle Behavioral Risk Factors***

  Proper diet and nutrition seem to be a challenge as only 11 percent of the respondents report eating the daily recommended servings of fruits and vegetables and 28.45 percent of the respondents report they never exercise. Of the respondents, 28 percent report exercising at least three times per week. When asked about exercising at least five times per week, nearly 50 percent of the respondents answered "never". Nearly 11 percent of the respondents always smoke cigarettes. Use of seat belts is high (over 86 percent) and when applicable, respondents' children use seat belts and/or child safety seats.

  (See Question 39 of Community Health Survey)

- ***Social and Mental Health***

  Almost 26 percent of the respondents rated their stress level as high or very high. There were 30 percent surveyed who reported that personal finances are stressful, while almost 22 percent reported that personal health is contributing to their stress.

  (See Question 37 of Community Health Survey)

- ***What do citizens say about the health of their community?***

  The five most important "health problems:"

  1. Heart disease and stroke
  2. Diabetes
  3. Cancer
  4. High blood pressure
  5. Obesity

  (See Question 32 of Community Health Survey)

  The five most "risky behaviors:"

  1. Drug abuse
  2. Alcohol abuse
  3. Lack of exercise
  4. Poor eating habits
  5. Tobacco use/second hand smoke

  (See Question 33 of Community Health Survey)

  The five most important factors for a "healthy community:"

  1. Affordable and available health care
  2. Affordable housing
  3. Clean and safe environment
  4. Emergency response services
  5. Low crime/safe neighborhoods

  (See Question 31 of Community Health Survey)

Additional Items to Consider in Planning

Respondents were asked to provide input as to what items Lake Charles Memorial Hospital should consider in planning for the next three years. The following items were recurring suggestions provided:

1. Additional mental health services including more counseling and psychiatric care.
2. Consider adding physical fitness classes and exercise facilities.
3. The need to recruit qualified specialists for rheumatology and neurology.

Health Issues of Uninsured Persons, Low-Income Persons and Minority Groups

Certain key informants were selected due to their positions working with low-income and uninsured populations. Several key informants were selected due to their work with minority populations. Based on information obtained through key informant interviews and the community health survey, the following chronic diseases and health issues were identified:

- Uninsured/low income population
  - ✓ Access to specialists
  - ✓ Dental care
  - ✓ High cost of prescriptions
  - ✓ Transportation
- Black population
  - ✓ High Incidence of high blood pressure and diabetes
  - ✓ Access to specialists
  - ✓ Barriers associated with preventive screenings and health education related to where and how information is distributed.

Prioritization of Identified Health Needs

An analysis of community health information and community input was conducted to identify community health needs and is included in the *Appendices*. The following data was analyzed to identify health needs for the community:

Leading Causes of Death: Leading causes of death for the community were reviewed and the death rates for the leading causes of death for Lake Charles Memorial Hospital's CHNA community were compared to U.S. adjusted death rates. Causes of death in which the rate compared unfavorably to the U.S. Adjusted death rate resulted in a health need for the CHNA community.

Primary Causes for Inpatient Hospitalization: The primary causes for inpatient hospitalization resulted in an identified health need for the community.

Health Outcomes and Factors: An analysis of the County Health Rankings health outcomes and factors data was prepared for Calcasieu Parish. Rates and measurements for health behaviors, clinical care, social and economic factors and the physical environment were compared to national benchmarks. Rankings in which the rate for Calcasieu Parish compared unfavorably (by greater than 30 percent of the national benchmark) resulted in an identified health need.

Primary Data: Health needs identified through community surveys, focus groups and key informant interviews (if applicable) were included as health needs. Needs for vulnerable populations were separately reported on the analysis in order to facilitate the prioritization process.

As a result, the following summary list of needs was identified:

Each need was ranked based on six prioritization metrics:

Exhibit 16
Lake Charles Memorial Hospital
Prioritization of Health Needs

	How many people are affected by the issue?	What are the consequences of not addressing this problem?	What is the impact on vulnerable popluations?	How Important is it to the community?	How many sources identified the need?	Does the hospital have existing programs which respond to the identified need?	Total Score
Heart Disease	4	4	0	4	4	4	**20**
Diabetes	2	2	4	4	3	4	**19**
Lack of healthy foods	4	3	0	4	4	2	**17**
Adult obesity	4	3	0	4	3	2	**16**
Physical inactivity	4	3	0	4	3	2	**16**
Cancer	3	3	0	4	2	4	**16**
Respiratory/COPD	4	4	0	0	3	4	**15**
Adult smoking	4	3	0	4	2	2	**15**
Access to care-uninsured underinsured	3	3	0	4	3	2	**15**
Shortage of primary care physicians	3	2	0	4	2	4	**15**
Access to specialists	2	2	4	0	2	4	**14**
High Cost of Prescriptions	3	4	4	0	2	1	**14**
Potential loss of Services provided by Moss Regional	3	3	0	0	4	3	**13**
Health knowledge/health education	3	2	0	0	3	4	**12**
Cultural Barriers to care	3	2	4	0	2	1	**12**
Drug Abuse	2	3	0	4	2	1	**12**
Excessive drinking	3	2	0	4	1	1	**11**
Mental Health	4	3	0	0	2	1	**10**
Transportation	2	1	4	0	2	1	**10**
Dental Care	2	2	4	0	1	1	**10**
Low birth weight	2	3	0	0	2	2	**9**
Children in poverty	3	2	0	0	3	1	**9**
Teen birth rate	1	2	0	0	2	2	**7**
Motor vehicle crash death rate	1	2	0	0	1	1	**5**

To facilitate prioritization of identified health needs, a ranking and prioritization process was used. Health needs were ranked based on the following six factors. Each factor received a score between 0 and 4.

1) **How many people are affected by the issue or size of the issue?** For this factor ratings were based on the percentage of the community who are impacted by the identified need. The following scale was utilized for health outcomes and factors: >20% of the community population=4; >10% and <20%=3; >5% and <10%=2 and <5%=1. Chronic diseases were rated based on state ranking for incidence of the disease. A factor of 1-4 was assigned based on which quartile the state was reported in.
2) **What are the consequences of not addressing this problem?** Identified health needs which have a high death rate or have a high impact on chronic diseases received a higher rating for this factor.
3) **The impact of the problem on vulnerable populations.** Needs associated with vulnerable populations identified through the Community Health Needs Assessment process were rated for this factor.
4) **How important the problem is to the community**. Needs identified through community surveys and/or focus groups were rated for this factor**.**
5) **Prevalence of common themes.** The rating for this factor was determined by how many sources of data (Leading Causes of Death, Primary Causes for Inpatient Hospitalization, Health Outcomes and Factors and Primary Data) identified the need.
6) **Does the hospital have existing programs which respond to the identified need?**

Hospital management reviewed the identified needs reported in *Exhibit 16*. Through discussion and debate, hospital management agreed on priorities Lake Charles Memorial Hospital should focus on for fiscal years 2014-2016.

Lake Charles Memorial Hospital has determined priority areas to be 1) Partnership with Moss Regional Public Hospital; 2) Chronic Disease Prevention and Management and 3) Teen Pregnancy Education and Management. The Hospital's next steps include developing an implementation strategy to address these priority areas.

Lake Charles Memorial Hospital Priorities	Correlated Community Health Need
Partnership with Moss Regional Public Hospital	Potential Loss of Services for: • Uninsured • Underinsured • Low income Access to care for the uninsured and underinsured Shortage of primary care physicians Access to specialists • Chronic Diseases: • Heart Disease • Diabetes • Cancer • Respiratory Disease Prescription Drug Costs
Chronic Disease Prevention & Management	Chronic Diseases: • Heart Disease • Diabetes • Cancer • Respiratory Disease Adult Obesity: • Physical Inactivity • Limited Access to Healthy Foods Health Knowledge & Education Adult Smoking
Teen Pregnancy Education & Management	Teen Pregnancy Low Birth Weight

APPENDICES

Acknowledgements

The project Steering Committee was the convening body for this project. Many other individuals including community residents, key informants, and community-based organizations contributed to this community health needs assessment.

Project Steering Committee

Special thanks to all of the following committee members for their time and commitment to this project:

David Usher, Senior Vice President of Business Development, Lake Charles Memorial Hospital
Kathy Derouen, Senior Vice President of Marketing, Lake Charles Memorial Hospital

Key Informants

Thank you to the following individuals who participated in our key informant interview process:

Kellye Anderson, Office of Aging and Adult Services
Laverta August, City Councilwoman
Sheik Bacchus, SWLA Center for Health Services
Annette Ballard, School Board Member
Ben Bougeois, Human Resources Director, Turner Industries
Rep. Mike Danahay, State Representative, District 33
Robert Daughdrill, Homeland Security, Emergency Response Coordinator
Denise Durell, President/CEO, United Way of South-West Louisiana
Phil Earhart, President, Iberia Bank
BJ Foch, Health Department
Rep AB Franklin, State Representative, District 34
Susan Fry, Regional Administrator, Louisiana Behavioral Health Office
Britney Glaser, Morning Anchor/Health Reporter, KPLC
Jacqueline Green, Executive Director, Calcasieu Council on Aging
Dick Gremillion, Director, Homeland Security
Pastor Steve James, Trinity Baptist Church
Senator Ronnie Johns, State Senate, District 27
Dana Keel, Government and Public Affairs Manager, Citgo Lake Charles
Ann Knapp, Asst, Vice President & Senior Financial Advisor, Merrill Lynch
Mark McMurry, Board Member, Lake Charles Memorial Hospital
Willie Mount, Mayor of Lake Charles (1993-1999), State Senator (2000-2012)
Dr. Frank Phillips, Assistant Professor, Dept. Agricultural Sciences at McNeese State
Jimmy Pottorff, Interim Administrator, Moss Regional Hospital
Mayor Randy Roach, Mayor, Lake Charles, Louisiana
Nancy Roach, Health Department
Jerry Romero, Regional Vice President of Operations, Acadian Ambulance
George Swift, South West Louisiana Alliance, Chamber of Commerce
Pastor Samuel Tolbert, St. Mary Missionary
EstherVincent, City of Lake Charles, Director of Community Development Services

KEY INFORMANT INTERVIEW PROTOCOL

KEY INFORMANT INTERVIEW

Community Health Needs Assessment for:

Lake Charles Memorial Hospital

Interviewer's Initials:

Date: Start Time: End Time:

Name: Title:
Agency/Organization:

# of years living in County: # of years in current position: E-mail address:

Introduction: Good morning/afternoon. My name is **[ ]**. Thank you for taking time out of your busy day to speak with me. I'll try to keep our time to approximately 40 minutes, but we may find that we run over – up to 50 minutes total - once we get into the interview.

[BKD] is gathering local data as part of developing a plan to improve health and quality of life in Calcasieu Parish. Community input is essential to this process. A combination of surveys and key informant interviews are being used to engage community members. You have been selected for a key informant interview because of your knowledge, insight, and familiarity with the community. The themes that emerge from these interviews will be summarized and made available to the public; however, individual interviews will be kept strictly confidential.

To get us started, can you tell me briefly about the work that you and your organization do in the community?

Thank you. Next I'll be asking you a series of questions about health and quality of life in Calcasieu Parish. As you consider these questions, keep in mind the broad definition of health adopted by the World Health Organization: ' Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity,' while sharing the local perspectives you have from your current position and from experiences in this community.

Questions:

1.In general, how would you rate health and quality of life in Calcasieu Parish?

2. In your opinion, has health and quality of life in Calcasieu Parish improved,

stayed the same, or declined over the past few years?

3. Why do you think it has (based on answer from previous question: improved, declined, or stayed the same)?

4. What other factors have contributed to the (based on answer to question 2: improvement, decline **or** to health and quality of life staying the same)?

5. Are there people or groups of people in Calcasieu Parish whose health or quality of life may not be as good as others?

a. Who are these persons or groups (whose health or quality of life is not as good as others)?
b. Why do you think their health/quality of life is not as good as others?

6. What barriers, if any, exist to improving health and quality of life in Calcasieu Parish?

7. In your opinion, what are the most critical health and quality of life issues in Calcasieu Parish?

8. What needs to be done to address these issues?

9. In your opinion, what else will improve health and quality of life in the parish?

10. In your opinion, what is the biggest asset of the community?

11. Do you have any thoughts on environmental issues which may impact the community?

12. Is there someone (who) you would recommend as a "key informant" for this assessment?

Close: Thanks so much for sharing your concerns and perspectives on these issues. The information you have provided will contribute to develop a better understanding about factors impacting health and quality of life in Calcasieu Parish. Before we conclude the interview,

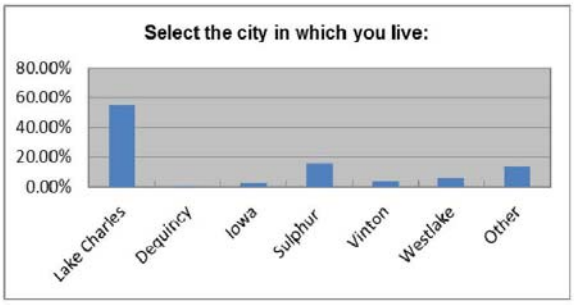
Is there anything you would like to add?

As a reminder, summary results will be made available by the Memorial and used to develop a community-wide health improvement plan. Should you have any questions, please feel free to contact David Usher at **[LCMH]**. It's been a pleasure to meet you.

COMMUNITY HEALTH SURVEY DETAIL RESULTS

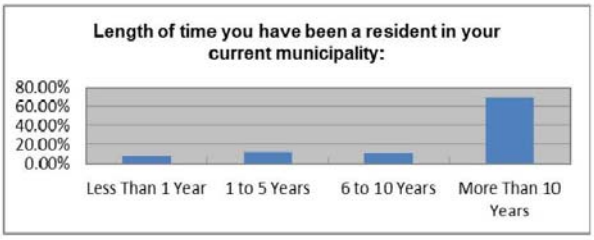
1. Select the city in which you live:

Lake Charles	55.10%
Dequincy	1.02%
Iowa	3.06%
Sulphur	16.33%
Vinton	4.08%
Westlake	6.12%
Other	14.29%
Count	98



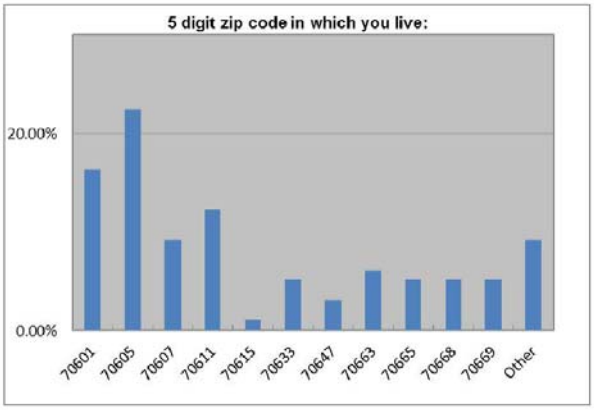
2. Length of time you have been a resident in your current municipality:

Less Than 1 Year	7.22%
1 to 5 Years	12.37%
6 to 10 Years	11.34%
More Than 10 Years	69.07%
Count	97



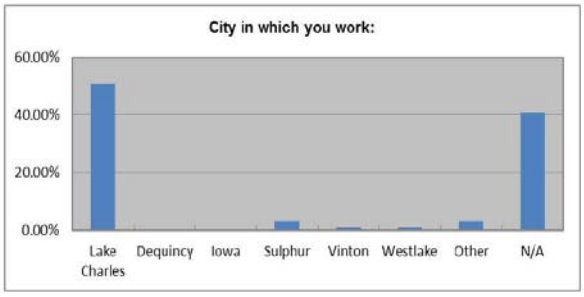
3. 5 digit zip code in which you live:

70601	16.33%
70605	22.45%
70607	9.18%
70611	12.24%
70615	1.02%
70633	5.10%
70647	3.06%
70663	6.12%
70665	5.10%
70668	5.10%
70669	5.10%
Other	9.18%
Count	98



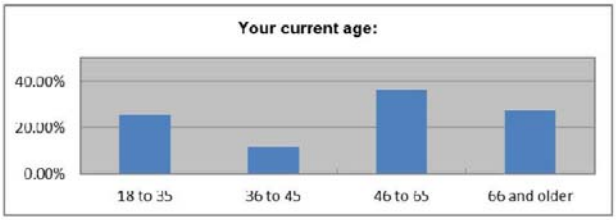
4. City in which you work:

Lake Charles	50.55%
Dequincy	0.00%
Iowa	0.00%
Sulphur	3.30%
Vinton	1.10%
Westlake	1.10%
Other	3.30%
N/A	40.66%
Count	91



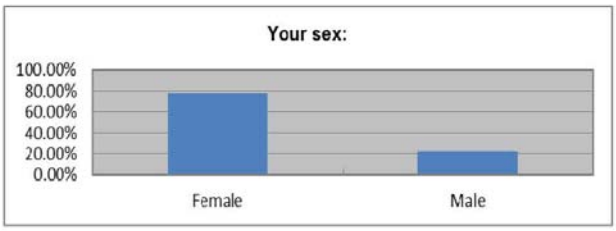
5. Your current age:

18 to 35	25.26%
36 to 45	11.58%
46 to 65	35.79%
66 and older	27.37%
Count	95



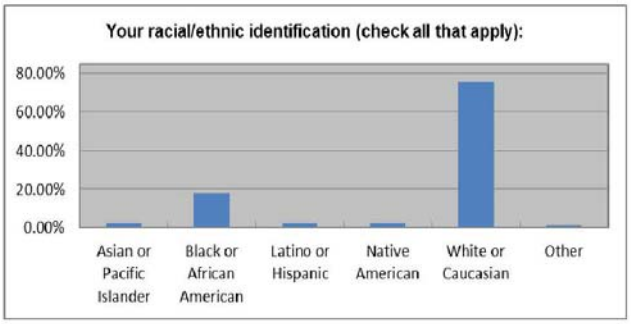
6. Your sex:

Female	77.42%
Male	22.58%
Count	93



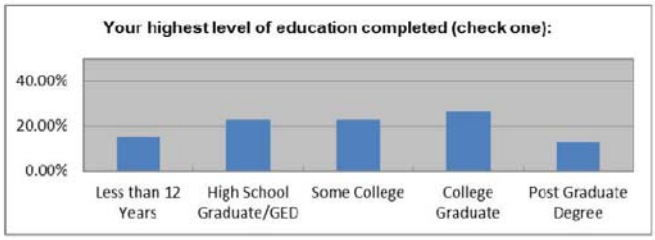
7. Your racial/ethnic identification (check all that apply):

Asian or Pacific Islander	2.06%
Black or African American	17.53%
Latino or Hispanic	2.06%
Native American	2.06%
White or Caucasian	75.26%
Other	1.03%
Count	97



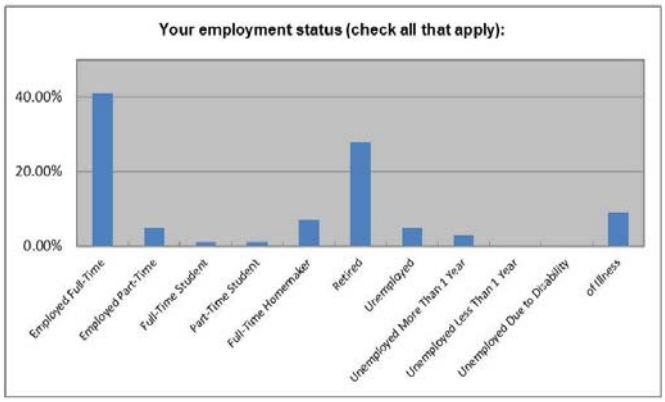
8. Your highest level of education completed (check one):

Less than 12 Years	15.05%
High School Graduate/GED	22.58%
Some College	22.58%
College Graduate	26.88%
Post Graduate Degree	12.90%
Count	93



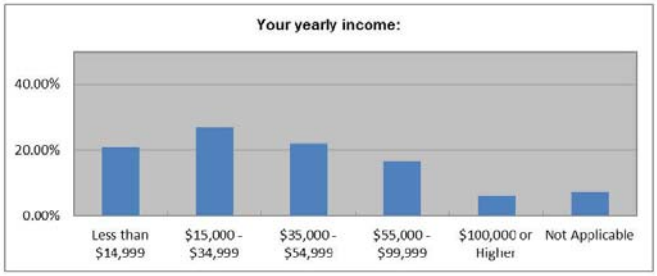
9. Your employment status (check all that apply):

Employed Full-Time	41.00%
Employed Part-Time	5.00%
Full-Time Student	1.00%
Part-Time Student	1.00%
Full-Time Homemaker	7.00%
Retired	28.00%
Unemployed	5.00%
Unemployed More Than 1 Year	3.00%
Unemployed Less Than 1 Year	0.00%
Unemployed Due to Disability of Illness	9.00%
Count	100



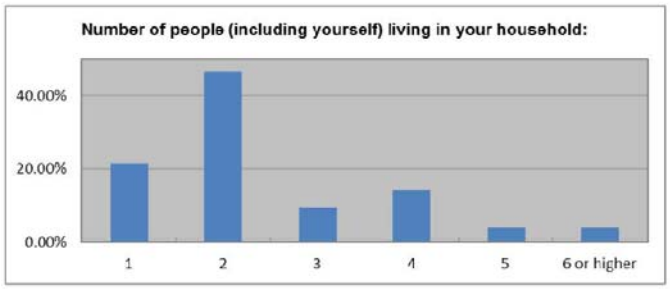
10. Your yearly income:

Less than $14,999	20.83%
$15,000 - $34,999	27.08%
$35,000 - $54,999	21.88%
$55,000 - $99,999	16.67%
$100,000 or Higher	6.25%
Not Applicable	7.29%
Count	96



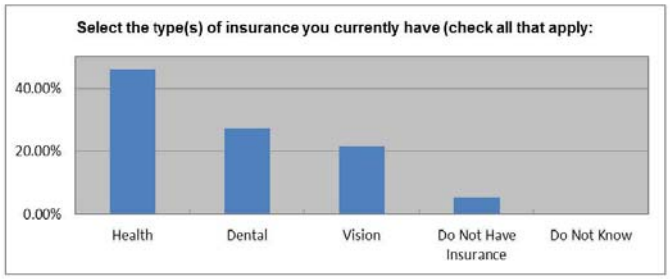
11. Number of people (including yourself) living in your household:

1	21.65%
2	46.39%
3	9.28%
4	14.43%
5	4.12%
6 or higher	4.12%
Count	97



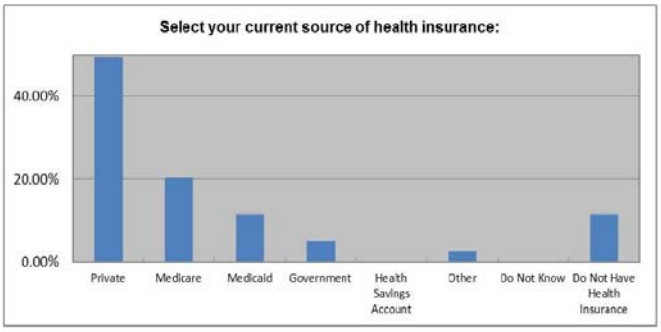
12. Select the type(s) of insurance you currently have (check all that apply:

Health	45.99%
Dental	27.27%
Vision	21.39%
Do Not Have Insurance	5.35%
Do Not Know	0.00%
Count	187



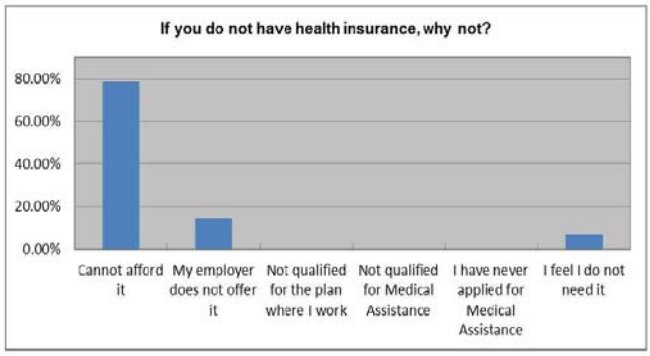
13. Select your current source of health insurance:

Private	49.37%
Medicare	20.25%
Medicaid	11.39%
Government	5.06%
Health Savings Account	0.00%
Other	2.53%
Do Not Know	0.00%
Do Not Have Health Insurance	11.39%
Count	79



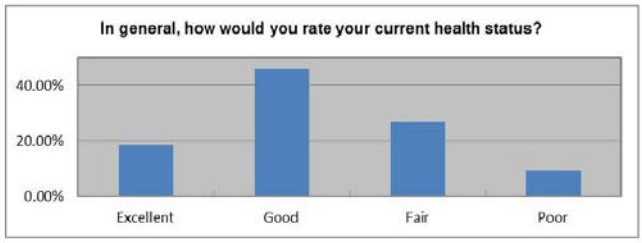
14. If you do not have health insurance, why not?

Cannot afford it	78.57%
My employer does not offer it	14.29%
Not qualified for the plan where I work	0.00%
Not qualified for Medical Assistance	0.00%
I have never applied for Medical Assistance	0.00%
I feel I do not need it	7.14%
Count	14



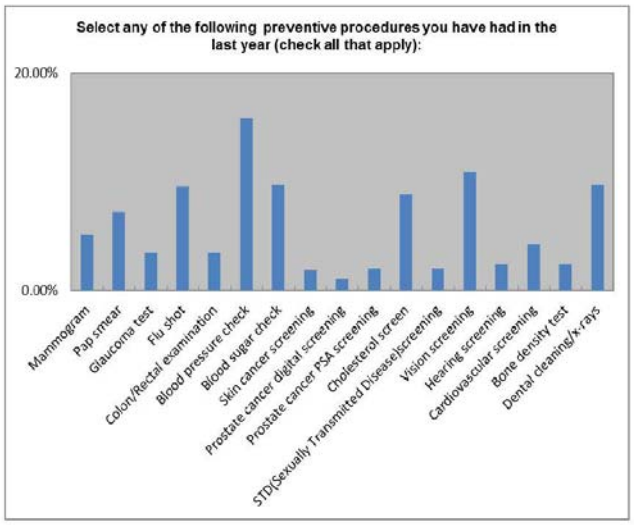
15. In general, how would you rate your current health status?

Excellent	18.37%
Good	45.92%
Fair	26.53%
Poor	9.18%
Count	98



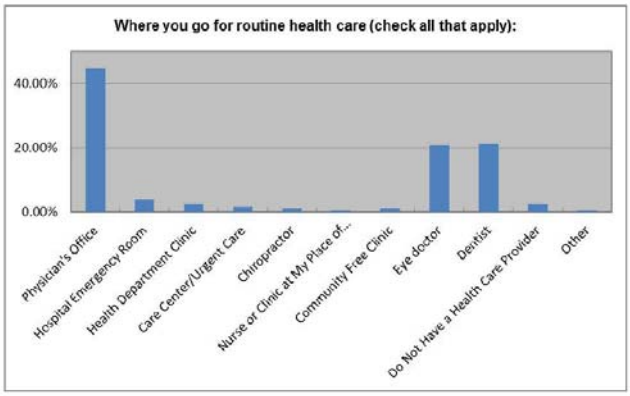
17. Select any of the following preventive procedures you have had in the last year (check all that apply):

Mammogram	5.16%
Pap smear	7.18%
Glaucoma test	3.50%
Flu shot	9.58%
Colon/Rectal examination	3.50%
Blood pressure check	15.84%
Blood sugar check	9.76%
Skin cancer screening	1.84%
Prostate cancer digital screening	1.10%
Prostate cancer PSA screening	2.03%
Cholesterol screen	8.84%
STD(Sexually Transmitted Disease)screening	2.03%
Vision screening	10.87%
Hearing screening	2.39%
Cardiovascular screening	4.24%
Bone density test	2.39%
Dental cleaning/x-rays	9.76%
Count	543



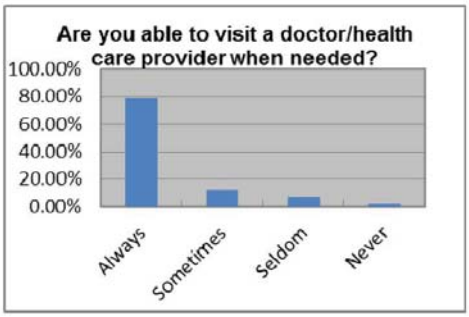
18. Where you go for routine health care (check all that apply):

Physician's Office	44.55%
Hospital Emergency Room	3.96%
Health Department Clinic	2.48%
Care Center/Urgent Care	1.49%
Chiropractor	0.99%
Nurse or Clinic at My Place of Employment	0.50%
Community Free Clinic	0.99%
Eye doctor	20.79%
Dentist	21.29%
Do Not Have a Health Care Provider	2.48%
Other	0.50%
Count	202



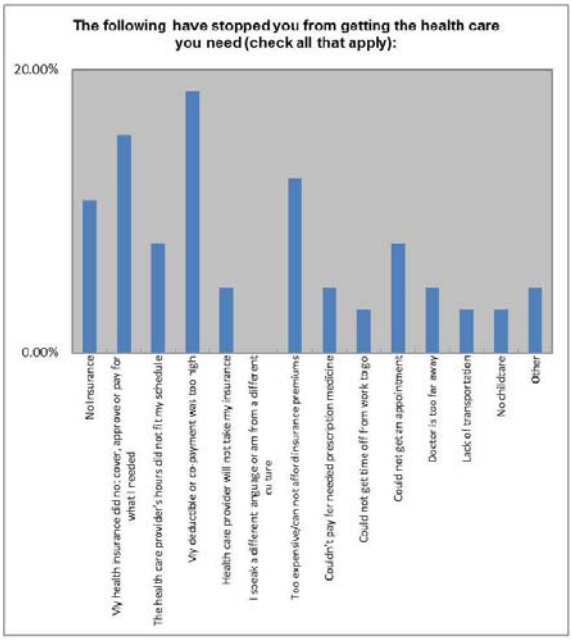
19. Are you able to visit a doctor/health care provider when needed?

Always	78.57%
Sometimes	12.24%
Seldom	7.14%
Never	2.04%
Count	98



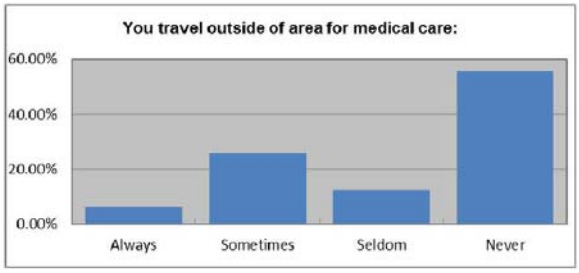
20. The following have stopped you from getting the health care you need (check all that apply):

No Insurance	10.77%
My health insurance did not cover, approve or pay for what I needed	15.38%
The health care provider's hours did not fit my schedule	7.69%
My deductible or co-payment was too high	18.46%
Health care provider will not take my insurance	4.62%
I speak a different language or am from a different culture	0.00%
Too expensive/can not afford insurance premiums	12.31%
Couldn't pay for needed prescription medicine	4.62%
Could not get time off from work to go	3.08%
Could not get an appointment	7.69%
Lack of transportation	4.62%
Doctor is too far away	3.08%
No childcare	3.08%
Other	4.62%
Count	65



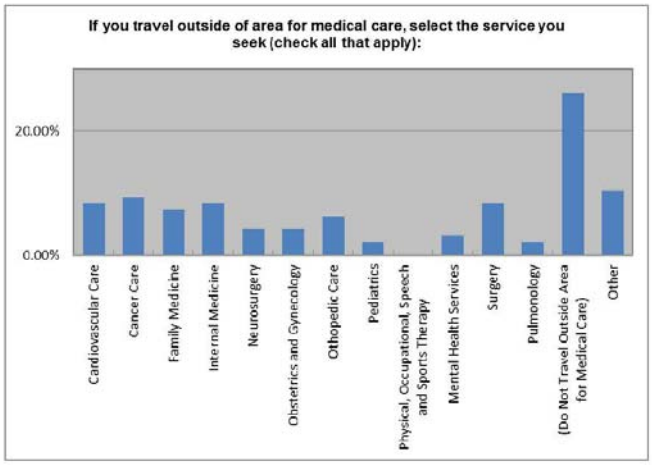
21. You travel outside of area for medical care:

Always	6.19%
Sometimes	25.77%
Seldom	12.37%
Never	55.67%
Count	97



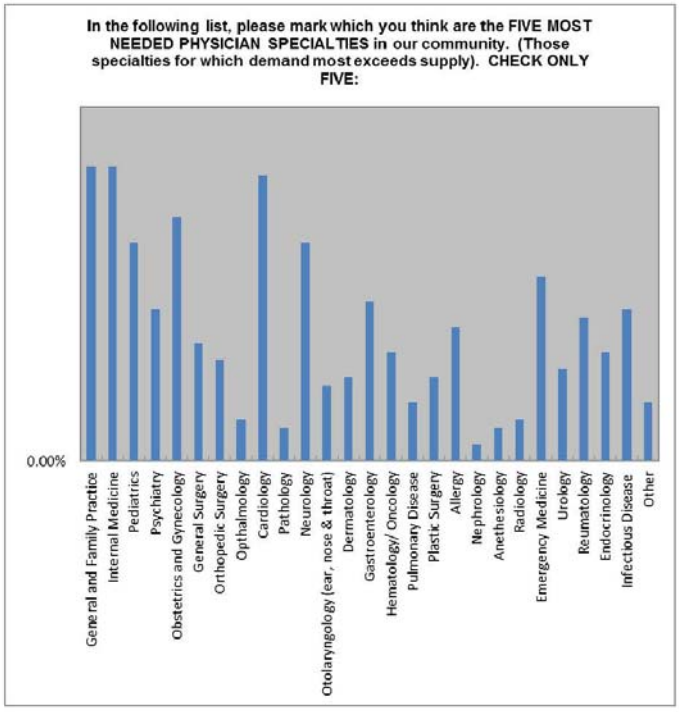
22. If you travel outside of area for medical care, select the service you seek (check all that apply):

Cardiovascular Care	8.33%
Cancer Care	9.38%
Family Medicine	7.29%
Internal Medicine	8.33%
Neurosurgery	4.17%
Obstetrics and Gynecology	4.17%
Othopedic Care	6.25%
Pediatrics	2.08%
Physical, Occupational, Speech and Sports Therapy	0.00%
Mental Health Services	3.13%
Surgery	8.33%
Pulmonology	2.08%
(Do Not Travel Outside Area for Medical Care)	26.04%
Other	10.42%
Count	96



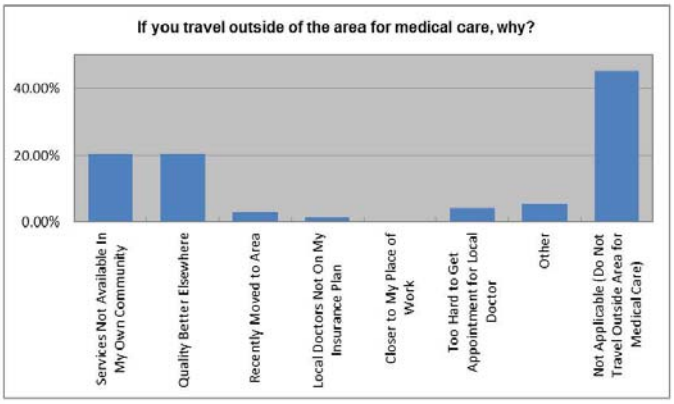
23. In the following list, please mark which you think are the FIVE MOST NEEDED PHYSICIAN SPECIALTIES in our community. (Those specialties for which demand most exceeds supply). CHECK ONLY FIVE:

General and Family Practice	8.31%
Internal Medicine	8.31%
Pediatrics	6.18%
Psychiatry	4.28%
Obstetrics and Gynecology	6.89%
General Surgery	3.33%
Orthopedic Surgery	2.85%
Opthalmology	1.19%
Cardiology	8.08%
Pathology	0.95%
Neurology	6.18%
Otolaryngology (ear, nose & throat)	2.14%
Dermatology	2.38%
Gastroenterology	4.51%
Hematology/ Oncology	3.09%
Pulmonary Disease	1.66%
Plastic Surgery	2.38%
Allergy	3.80%
Nephrology	0.48%
Anethesiology	0.95%
Radiology	1.19%
Emergency Medicine	5.23%
Urology	2.61%
Reumatology	4.04%
Endocrinology	3.09%
Infectious Disease	4.28%
Other	1.66%
Count	421



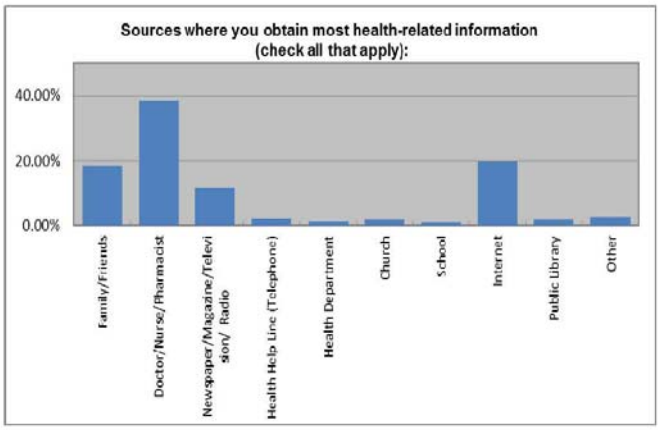
24. If you travel outside of the area for medical care, why?

Services Not Available In My Own Community	20.55%
Quality Better Elsewhere	20.55%
Recently Moved to Area	2.74%
Local Doctors Not On My Insurance Plan	1.37%
Closer to My Place of Work	0.00%
Too Hard to Get Appointment for Local Doctor	4.11%
Other	5.48%
Not Applicable (Do Not Travel Outside Area for Medical Care)	45.21%
Count	73



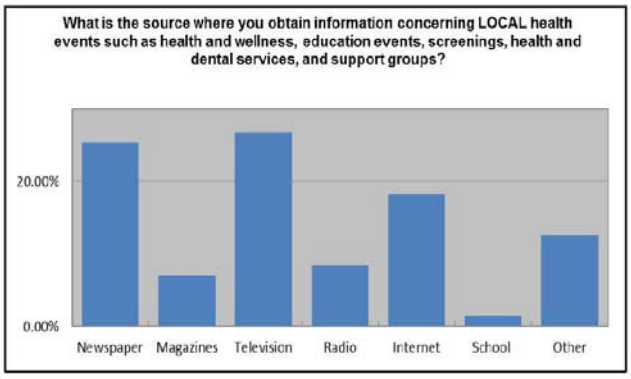
25. Sources where you obtain most health-related information (check all that apply):

Family/Friends	18.64%
Doctor/Nurse/Pharmacist	38.64%
Newspaper/Magazine/Television/ Radio	11.82%
Health Help Line (Telephone)	2.27%
Health Department	1.36%
Church	1.82%
School	0.91%
Internet	20.00%
Public Library	1.82%
Other	2.73%
Count	220



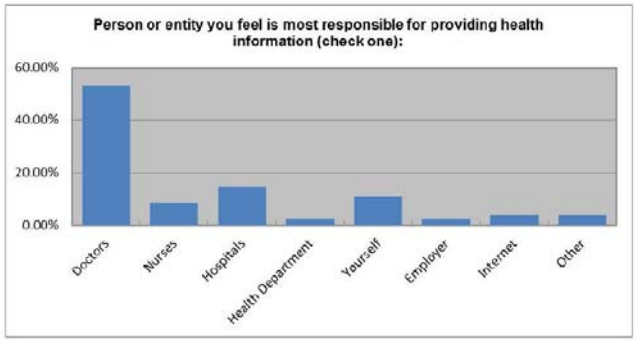
26. What is the source where you obtain information concerning LOCAL health events such as health and wellness, education events, screenings, health and dental services, and support groups?

Newspaper	25.35%
Magazines	7.04%
Television	26.76%
Radio	8.45%
Internet	18.31%
School	1.41%
Church	0.00%
Other	12.68%
Count	71



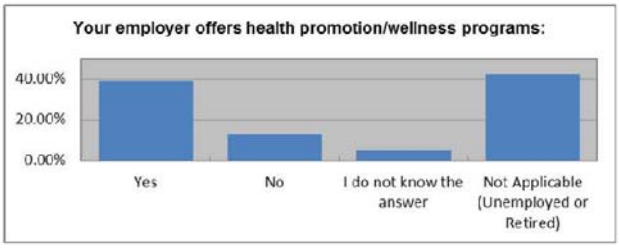
27. Person or entity you feel is most responsible for providing health information (check one):

Church/Faith	0.00%
Doctors	53.09%
Nurses	8.64%
Hospitals	14.81%
Health Department	2.47%
Yourself	11.11%
Public Library	0.00%
Employer	2.47%
Internet	3.70%
Other	3.70%
Count	81



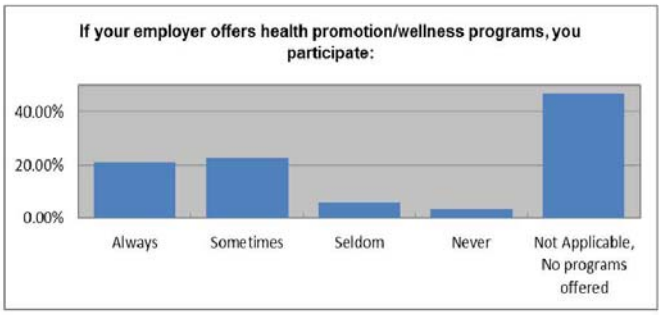
28. Your employer offers health promotion/wellness programs:

Yes	39.18%
No	13.40%
I do not know the answer	5.15%
Not Applicable (Unemployed or Retired)	42.27%
Count	97



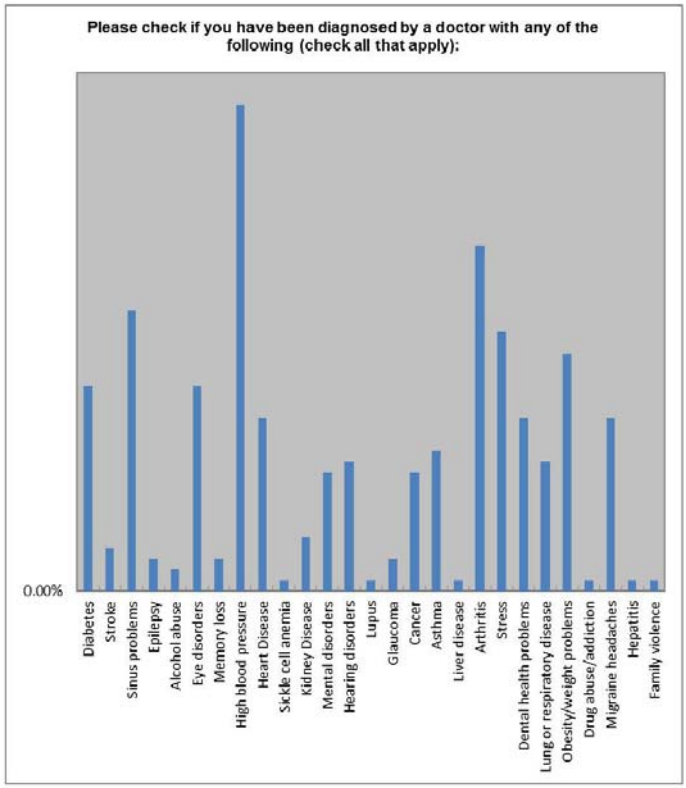
29. If your employer offers health promotion/wellness programs, you participate:

Always	21.18%
Sometimes	22.35%
Seldom	5.88%
Never	3.53%
Not Applicable, No programs offered	47.06%
Count	85



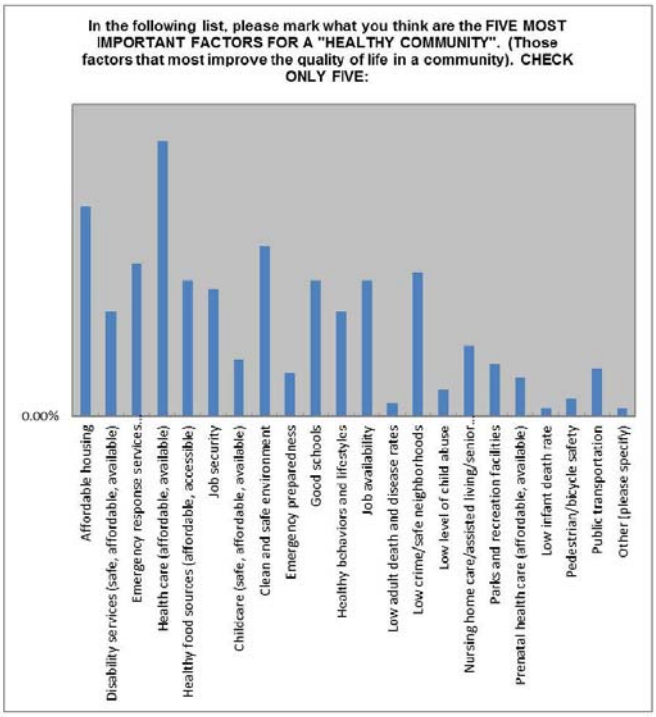
30. Please check if you have been diagnosed by a doctor with any of the following (check all that apply):

Diabetes	5.94%
Stroke	1.25%
Sinus problems	8.13%
Epilepsy	0.94%
Alcohol abuse	0.63%
Eye disorders	5.94%
TB	0.00%
Memory loss	0.94%
High blood pressure	14.06%
Heart Disease	5.00%
Sickle cell anemia	0.31%
Kidney Disease	1.56%
Mental disorders	3.44%
Hearing disorders	3.75%
Lupus	0.31%
Glaucoma	0.94%
Cancer	3.44%
Asthma	4.06%
Infant death	0.00%
Liver disease	0.31%
Gonorrhea	0.00%
HIV/AIDS	0.00%
Arthritis	10.00%
Stress	7.50%
Dental health problems	5.00%
Lung or respiratory disease	3.75%
Obesity/weight problems	6.88%
Drug abuse/addiction	0.31%
Migraine headaches	5.00%
Hepatitis	0.31%
Family violence	0.31%
Count	320



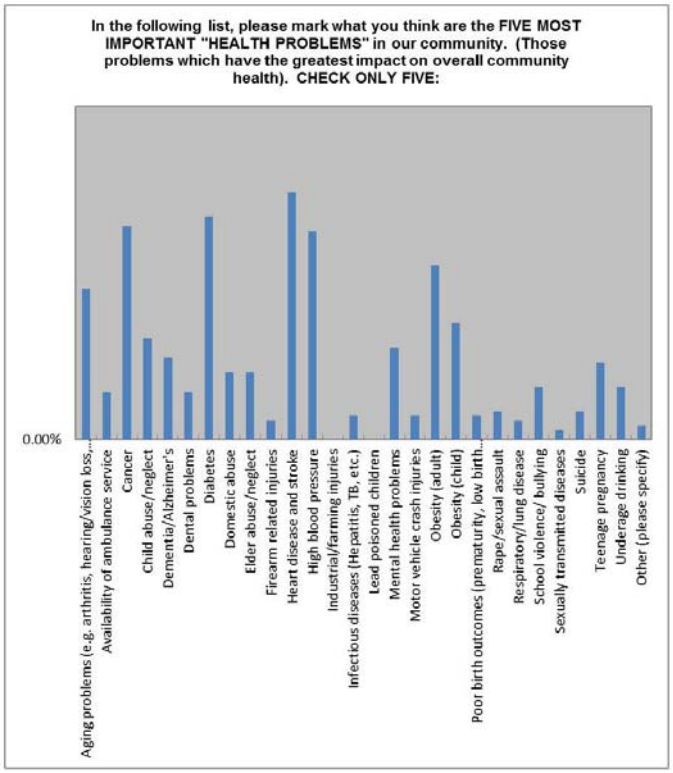
31. In the following list, please mark what you think are the FIVE MOST IMPORTANT FACTORS FOR A "HEALTHY COMMUNITY". (Those factors that most improve the quality of life in a community). CHECK ONLY FIVE:

Affordable housing	10.08%
Disability services (safe, affordable, available)	5.04%
Emergency response services (ambulance/fire/police)	7.35%
Health care (affordable, available)	13.24%
Healthy food sources (affordable, accessible)	6.51%
Job security	6.09%
Childcare (safe, affordable, available)	2.73%
Clean and safe environment	8.19%
Emergency preparedness	2.10%
Good schools	6.51%
Healthy behaviors and lifestyles	5.04%
Job availability	6.51%
Low adult death and disease rates	0.63%
Low crime/safe neighborhoods	6.93%
Low level of child abuse	1.26%
Nursing home care/assisted living/senior housing (safe, affordable, available)	3.36%
Parks and recreation facilities	2.52%
Prenatal health care (affordable, available)	1.89%
Low infant death rate	0.42%
Pedestrian/bicycle safety	0.84%
Public transportation	2.31%
Other (please specify)	0.42%
Count	476



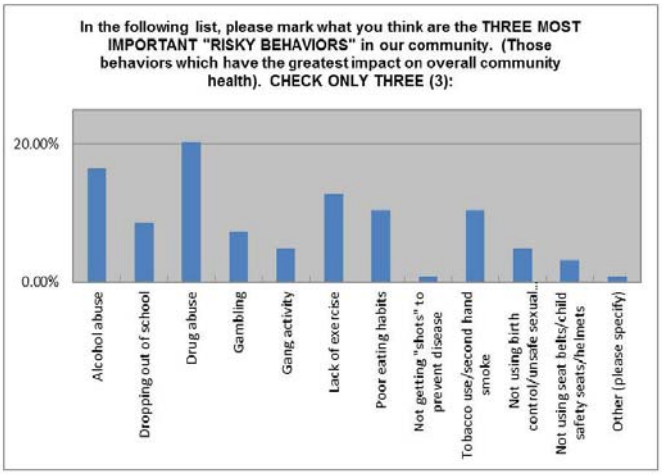
32. In the following list, please mark what you think are the FIVE MOST IMPORTANT "HEALTH PROBLEMS" in our community. (Those problems which have the greatest impact on overall community health). CHECK ONLY FIVE:

Aging problems (e.g. arthritis, hearing/vision loss, etc.)	6.77%
Availability of ambulance service	2.18%
Cancer	9.61%
Child abuse/neglect	4.59%
Dementia/Alzheimer's	3.71%
Dental problems	2.18%
Diabetes	10.04%
Domestic abuse	3.06%
Elder abuse/neglect	3.06%
Firearm related injuries	0.87%
Heart disease and stroke	11.14%
High blood pressure	9.39%
Industrial/farming injuries	0.00%
Infectious diseases (Hepatitis, TB, etc.)	1.09%
Lead poisoned children	0.00%
Mental health problems	4.15%
Motor vehicle crash injuries	1.09%
Obesity (adult)	7.86%
Obesity (child)	5.24%
Poor birth outcomes (prematurity, low birth weight, defects, etc.)	1.09%
Rape/sexual assault	1.31%
Respiratory/lung disease	0.87%
School violence/ bullying	2.40%
Sexually transmitted diseases	0.44%
Suicide	1.31%
Teenage pregnancy	3.49%
Underage drinking	2.40%
Other (please specify)	0.66%
Count	458



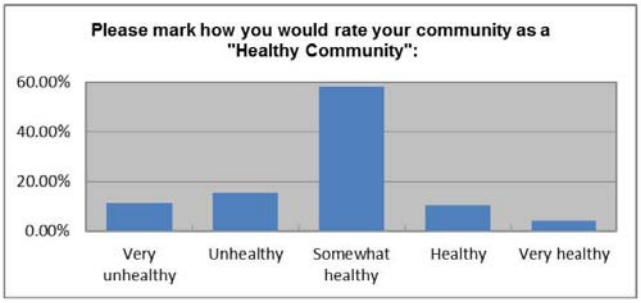
33. In the following list, please mark what you think are the THREE MOST IMPORTANT "RISKY BEHAVIORS" in our community. (Those behaviors which have the greatest impact on overall community health). CHECK ONLY THREE (3):

Alcohol abuse	16.49%
Dropping out of school	8.59%
Drug abuse	20.27%
Gambling	7.22%
Gang activity	4.81%
Lack of exercise	12.71%
Poor eating habits	10.31%
Not getting "shots" to prevent disease	0.69%
Tobacco use/second hand smoke	10.31%
Not using birth control/unsafe sexual practices	4.81%
Not using seat belts/child safety seats/helmets	3.09%
Other (please specify)	0.69%
Count	291



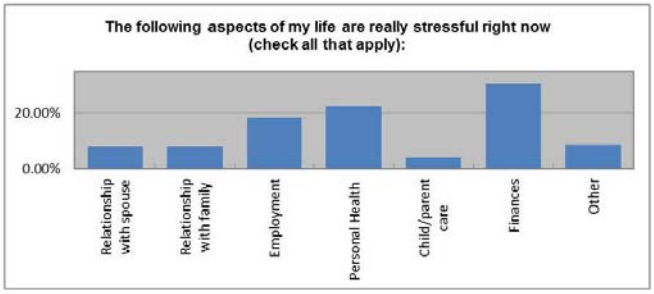
34. Please mark how you would rate your community as a "Healthy Community":

Very unhealthy	11.46%
Unhealthy	15.63%
Somewhat healthy	58.33%
Healthy	10.42%
Very healthy	4.17%
Count	96



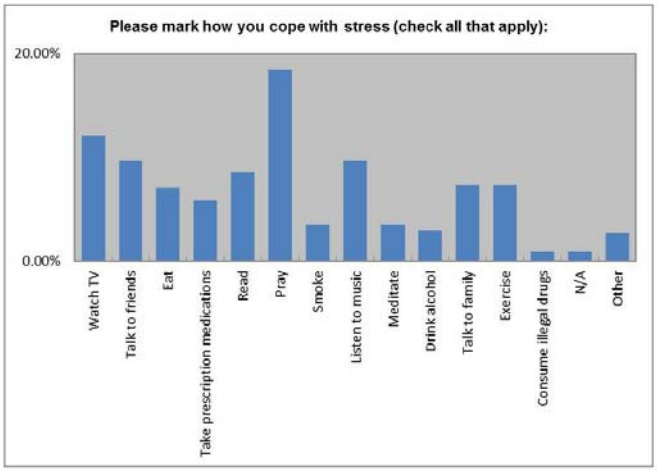
35. The following aspects of my life are really stressful right now(check all that apply):

Relationship with spouse	7.93%
Relationship with family	7.93%
Employment	18.29%
Personal Health	22.56%
Child/parent care	4.27%
Finances	30.49%
Other	8.54%
Count	164



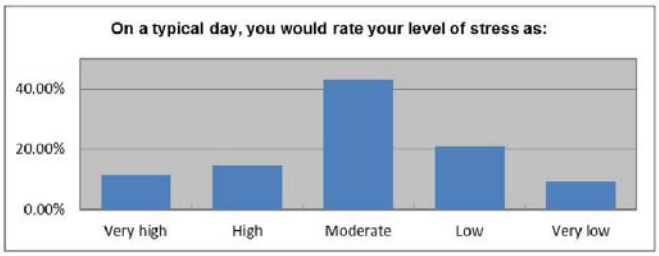
36. Please mark how you cope with stress (check all that apply):

Watch TV	11.99%
Talk to friends	9.65%
Eat	7.02%
Take prescription medications	5.85%
Read	8.48%
Pray	18.42%
Smoke	3.51%
Listen to music	9.65%
Meditate	3.51%
Drink alcohol	2.92%
Hurt self	0.00%
Talk to family	7.31%
Exercise	7.31%
Consume illegal drugs	0.88%
N/A	0.88%
Other	2.63%
Count	342



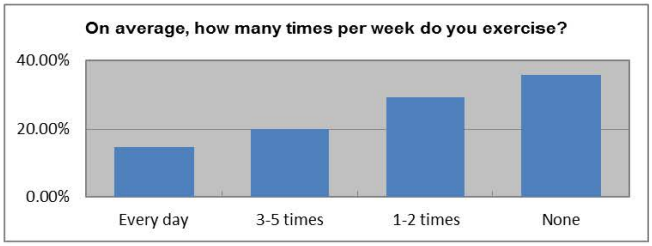
37. On a typical day, you would rate your level of stress as:

Very high	11.58%
High	14.74%
Moderate	43.16%
Low	21.05%
Very low	9.47%
Count	95



38. On average, how many times per week do you exercise?

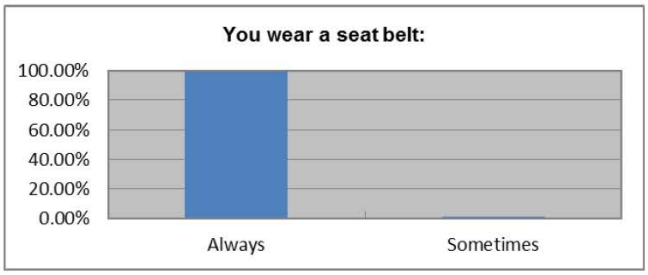
Every day	14.74%
3-5 times	20.00%
1-2 times	29.47%
None	35.79%
Count	95



Question 39:

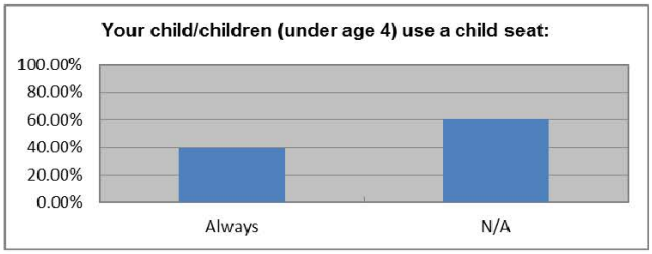
You wear a seat belt:

Always	98.90%
Sometimes	1.10%
Never	0.00%
N/A	0.00%
Count	91
Mean	1.01



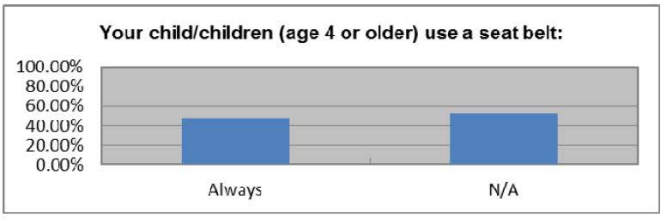
Your child/children (under age 4) use a child seat:

Always	39.51%
Sometimes	0.00%
Never	0.00%
N/A	60.49%
Count	81
Mean	2.81



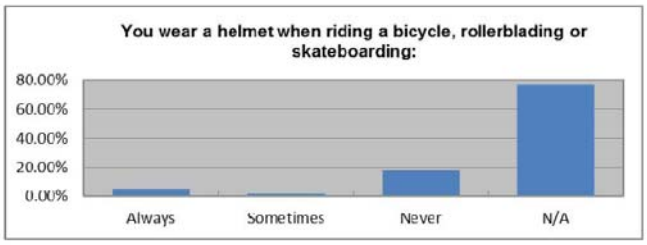
Your child/children (age 4 or older) use a seat belt:

Always	48.05%
Sometimes	0.00%
Never	0.00%
N/A	51.95%
Count	77
Mean	2.56



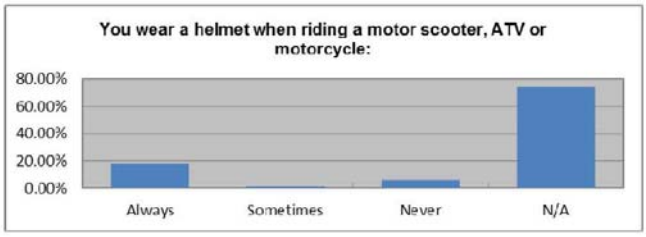
You wear a helmet when riding a bicycle, rollerblading or skateboarding:

Always	4.94%
Sometimes	1.23%
Never	17.28%
N/A	76.54%
Count	81
Mean	3.65



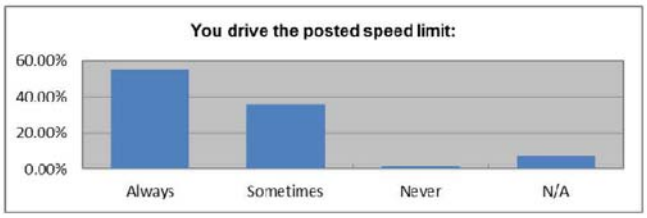
You wear a helmet when riding a motor scooter, ATV or motorcycle:

Always	17.95%
Sometimes	1.28%
Never	6.41%
N/A	74.36%
Count	78
Mean	3.37



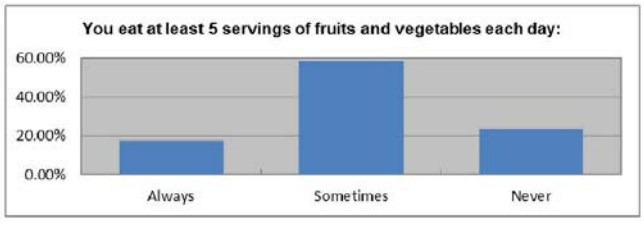
You drive the posted speed limit:

Always	54.84%
Sometimes	35.48%
Never	2.15%
N/A	7.53%
Count	93
Mean	1.62



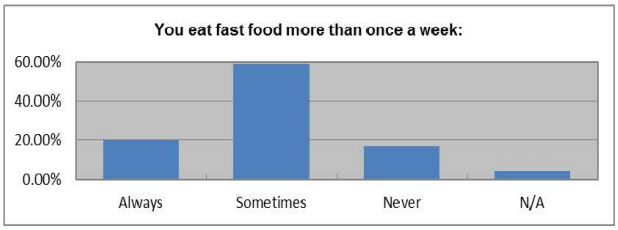
You eat at least 5 servings of fruits and vegetables each day:

Always	17.78%
Sometimes	58.89%
Never	23.33%
N/A	0.00%
Count	90
Mean	2.06



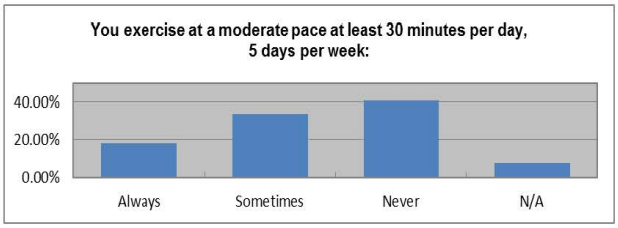
You eat fast food more than once a week:

Always	20.00%
Sometimes	58.89%
Never	16.67%
N/A	4.44%
Count	90
Mean	2.06



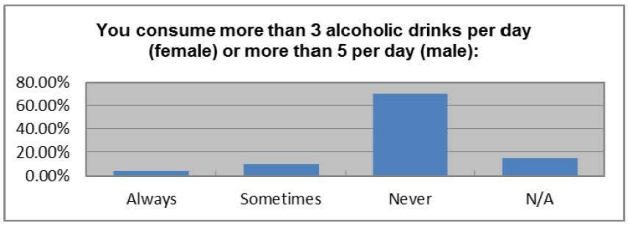
You exercise at a moderate pace at least 30 minutes per day, 5 days per week:

Always	17.98%
Sometimes	33.71%
Never	40.45%
N/A	7.87%
Count	89
Mean	2.38



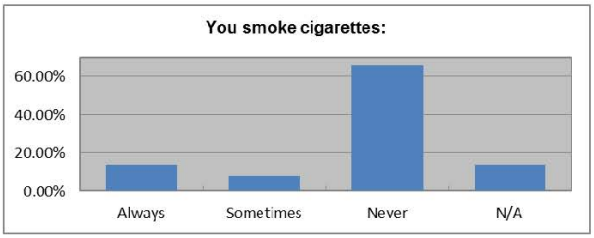
You consume more than 3 alcoholic drinks per day (female) or more than 5 per day (male):

Always	4.44%
Sometimes	10.00%
Never	70.00%
N/A	15.56%
Count	90
Mean	2.97



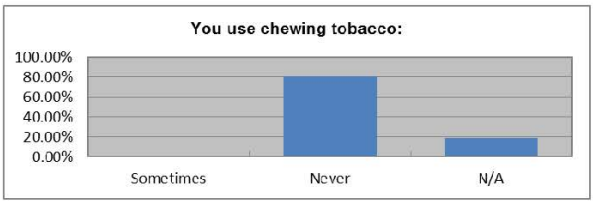
You smoke cigarettes:

Always	13.33%
Sometimes	7.78%
Never	65.56%
N/A	13.33%
Count	90
Mean	2.79



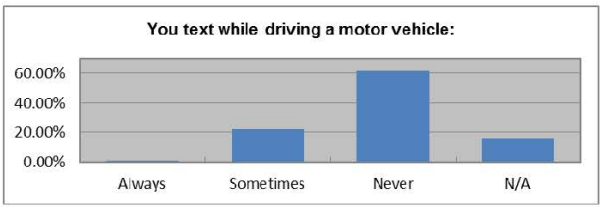
You use chewing tobacco:

Always	0.00%
Sometimes	1.15%
Never	80.46%
N/A	18.39%
Count	87
Mean	3.17



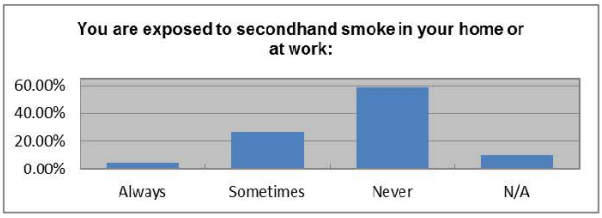
You text while driving a motor vehicle:

Always	1.10%
Sometimes	21.98%
Never	61.54%
N/A	15.38%
Count	91
Mean	2.91



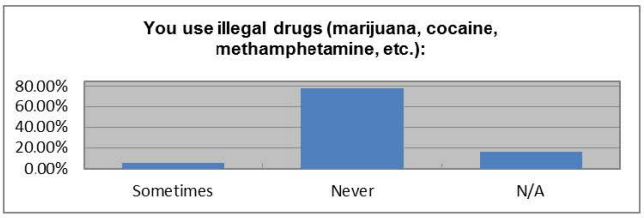
You are exposed to secondhand smoke in your home or at work:

Always	4.44%
Sometimes	26.67%
Never	58.89%
N/A	10.00%
Count	90
Mean	2.74



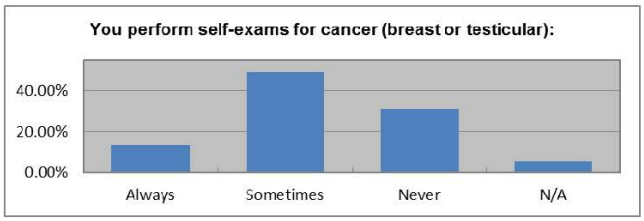
You use illegal drugs (marijuana, cocaine, methamphetamine, etc.):

Always	0.00%
Sometimes	5.49%
Never	78.02%
N/A	16.48%
Count	91
Mean	3.11



You perform self-exams for cancer (breast or testicular):

Always	13.48%
Sometimes	49.44%
Never	31.46%
N/A	5.62%
Count	89
Mean	2.29



You wash your hands with soap and water after using the restroom:

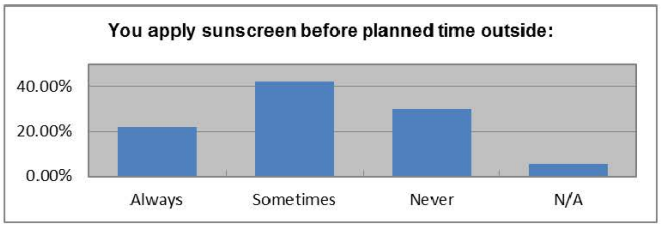
Always	80.65%
Sometimes	18.28%
Never	0.00%
N/A	1.08%
Count	93
Mean	1.22

You wash your hands with soap and water before preparing and eating meals:

Always	82.61%
Sometimes	16.30%
Never	1.09%
N/A	0.00%
Count	92
Mean	1.18

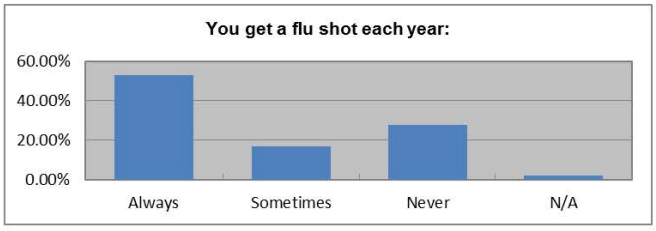
You apply sunscreen before planned time outside:

Always	22.22%
Sometimes	42.22%
Never	30.00%
N/A	5.56%
Count	90
Mean	2.19



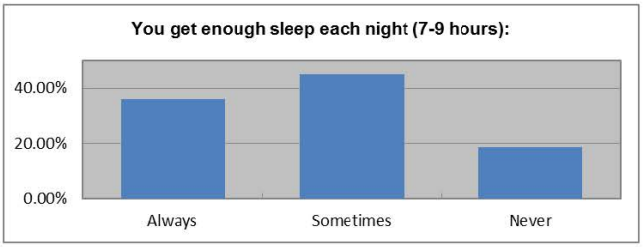
You get a flu shot each year:

Always	53.19%
Sometimes	17.02%
Never	27.66%
N/A	2.13%
Count	94
Mean	1.79



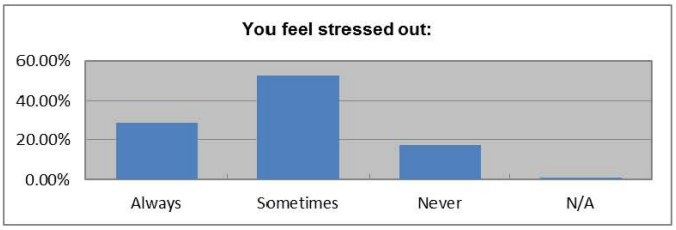
You get enough sleep each night (7-9 hours):

Always	36.26%
Sometimes	45.05%
Never	18.68%
N/A	0.00%
Count	91
Mean	1.82



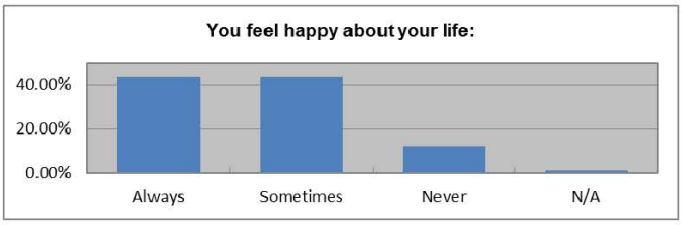
You feel stressed out:

Always	28.74%
Sometimes	52.87%
Never	17.24%
N/A	1.15%
Count	87
Mean	1.91



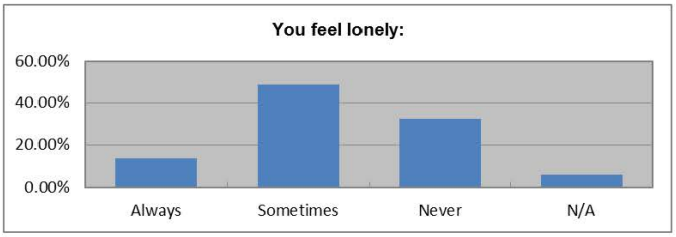
You feel happy about your life:

Always	43.33%
Sometimes	43.33%
Never	12.22%
N/A	1.11%
Count	90
Mean	1.71



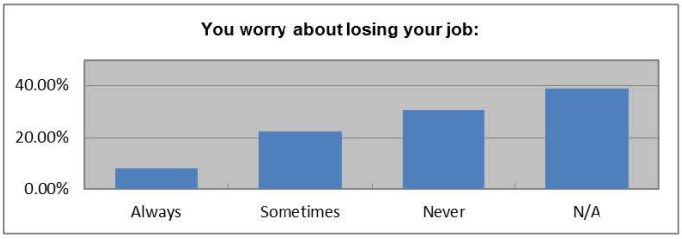
You feel lonely:

Always	13.33%
Sometimes	48.89%
Never	32.22%
N/A	5.56%
Count	90
Mean	2.30



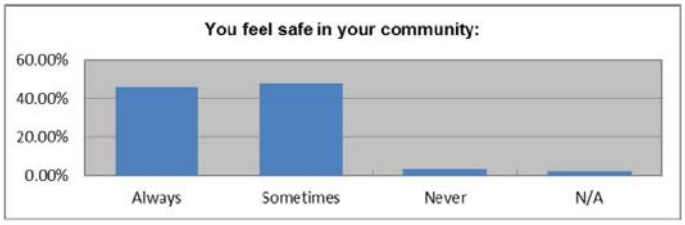
You worry about losing your job:

Always	8.24%
Sometimes	22.35%
Never	30.59%
N/A	38.82%
Count	85
Mean	3.00



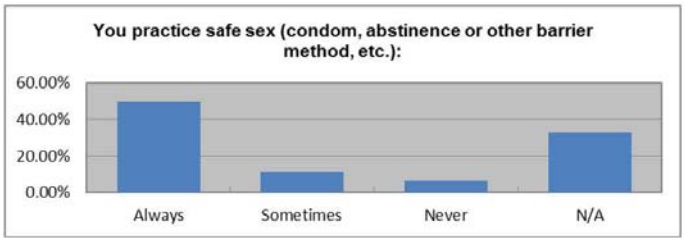
You feel safe in your community:

Always	46.07%
Sometimes	48.31%
Never	3.37%
N/A	2.25%
Count	89



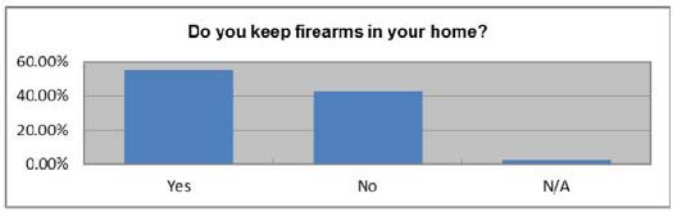
You practice safe sex (condom, abstinence or other barrier method, etc.):

Always	49.44%
Sometimes	11.24%
Never	6.74%
N/A	32.58%
Count	89
Mean	2.22



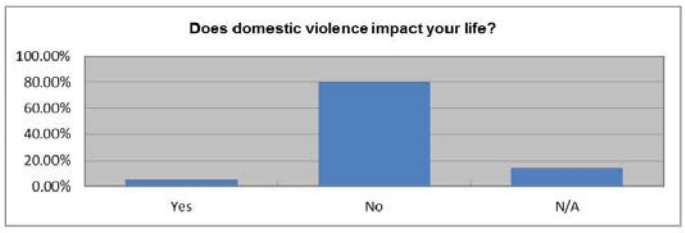
40. Do you keep firearms in your home?

Yes	55.17%
No	42.53%
N/A	2.30%
Count	87



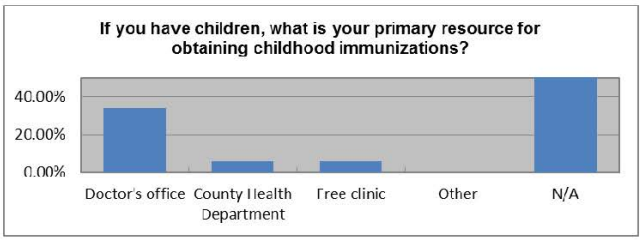
41. Does domestic violence impact your life?

Yes	5.43%
No	80.43%
N/A	14.13%
Count	92



42. If you have children, what is your primary resource for obtaining childhood immunizations?

Doctor's office	34.12%
County Health Department	5.88%
Free clinic	5.88%
Other	0.00%
N/A	54.12%
Count	85



ANALYSIS OF DATA

Lake Charles Memorial Hospital
Analysis of CHNA Data

Analysis of Health Status-Leading Causes of Death

	U.S. Age Adjusted Death Rates	(A) 10% of U.S. Adjusted Death Rate	County Rate	(B) County Rate Less U.S. Adjusted Death Rate	If (B)>(A), then "Health Need"
Calcasieu Parish					
Cancer	183.8	55.1	193.0	9.2	
Heart Disease	211.1	63.3	293.0	81.9	Health Need
Chronic Lower Respiratory Disease	43.2	13.0	24.7	-18.5	
Stroke/Cerebrovascular Disease	46.6	14.0	33.7	-12.9	

Analysis of Health Status-Primary Health Conditions Responsible for Inpatient Hospitalization

Heart Disease
Mental or Emotional Diagnosis
COPD
Cancer
Stroke
Obstetrics/Gynecology

Analysis of Health Outcomes and Factors

	National Benchmark	(A) 30% of National Benchmark	County Rate	(B) County Rate Less National Benchmark	If (B)>(A), then "Health Need"
Calcasieu Parrish					
Adult Smoking	14.00%	4.20%	24.00%	10.00%	Health Need
Adult Obesity	25.00%	7.50%	35.00%	10.00%	Health Need
Physical Inactivity	21.00%	6.30%	30.00%	9.00%	Health Need
Excessive Drinking	8.00%	2.40%	16.00%	8.00%	Health Need
Motor Vehicle Crash Death rate	12.00%	3.60%	24.00%	12.00%	Health Need
Teen Birth Rate	22.00%	6.60%	60.00%	38.00%	Health Need
Diabetic Screening	89.00%	26.70%	80.00%	9.00%	
Mammography Screening	74.00%	22.20%	66.00%	8.00%	

Issues Identified through Primary Data

Access to Care
Health Knowledge
Addiction/Substance Abuse
Stroke
Obesity
Respiratory Illness
Communication/Health Education
Low BirthWeight/High Infant Mortality
Mental Health Services (Access)

Issues of Uninsured Persons, Low-Income Persons and Minority Groups

Heart Disease is higher for Black or African American
Lack of Physical Activity in some neighborhoods
Increased Chronic Diseases

SOURCES

Sources

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