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Introduction

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 being of residents within the communities served by the hospital(s). These strategies created by hospitals and institutions consist of programs, activities, and plans that are specifically targeted towards populations within the community. The execution of the implementation strategy plan is designed to increase and track the impact of each hospitals' efforts.

Tripp Umbach was contracted by Metropolitan Hospital Council of New Orleans (MHCNO) to conduct a CHNA for East Jefferson General Hospital, LCMC Health, Ochsner Health System, HCA Healthcare (Tulane Medical Center), Slidell Memorial Hospital, and St. Tammany Parish Hospital. The overall CHNA involved multiple steps that 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 CHNA process undertaken by Slidell Memorial Hospital, along with East Jefferson General Hospital, LCMC Health, HCA Healthcare (Tulane Medical Center), Ochsner Health System, and St. Tammany Parish Hospital, with project management and consultation by Tripp Umbach, included input from representatives who represent the broad interests of the community served by the hospital facilities, 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 worked closely 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 (PPACA) requiring that non-profit hospitals conduct CHNAs every three years.

Data from government and social agencies provides a strong framework and a comprehensive view to the overall CHNA. The information collected is a snapshot of the health of residents in in the region, which encompassed socioeconomic information, health statistics, demographics, and mental health issues, etc. The CHNA report is a summary of primary and secondary data collected for Slidell Memorial Hospital.

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

¹ Tripp Umbach worked closely with Working Group members composed of hospital administration leaders from participating hospitals and health systems. A complete Working Group member listing can be found in Appendix F.

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 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

² The outcomes from the CHNA will be addressed through an implementation planning phase.

Methodology

A comprehensive CHNA process performed by Slidell Memorial Hospital included the collection of primary and secondary data. Community organizations and leaders within the four-parish region were engaged to distinguish the needs of the community. 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 over 100 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. Health provider surveys were collected to capture thoughts and opinions regarding health providers' community regarding the care and services they provide. Community representatives and stakeholders attended a community forum facilitated by Tripp Umbach to prioritize health needs, which will assist 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.

A robust regional profile (secondary data profile) was analyzed. The regional 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. In total, six regional health profiles were compiled based on the locations and service areas of the participating hospitals. For the overall assessment process, the regional profiles were: Baton Rouge, Jefferson, New Orleans, North Shore, West Bank, and St. Anne (Raceland)/Lafourche region. Slidell Memorial Hospital was represented in the North Shore study area.

Additional data from Truven Health Analytics was supplied to gain a deeper understanding of community health care needs.⁴ 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

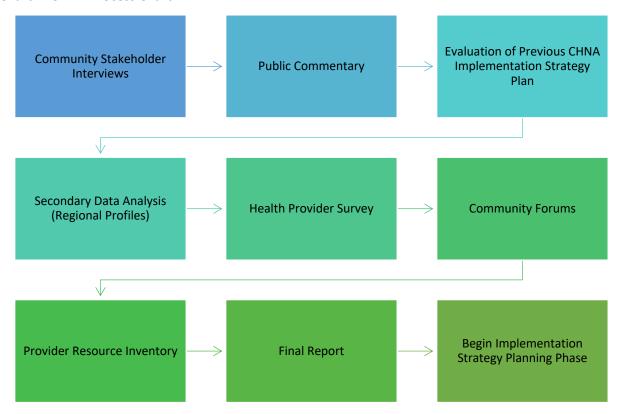
³ For the regional profiles, Tripp Umbach cited the data years reflective of the year the CHNA was conducted. The data years from Community Commons vary for each data point. Some data points may be reflective of years prior to 2017. Tripp Umbach compiled and collected data that was currently available on the data sources' sites. Tripp Umbach provided data on specific outcome factors and measures that had "fresh" information.

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.

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 Slidell Memorial Hospital.

The overall CHNA involved multiple steps that are depicted in the below flow chart.

Chart 1: CHNA Process Chart



Primary Service Area

A comprehensive CHNA was completed for Slidell Memorial Hospital. Tripp Umbach provided benchmarking or trending data to track and observe positive or negative movements in the primary and secondary data (where applicable).

The primary service area is defined by ZIP codes that contain a majority (80 percent) of inpatient discharges from a health care facility. In 2018, a total of 22 ZIP codes (see Table 1) were identified for Slidell Memorial Hospital service area as containing a majority of inpatient discharges. The study area for the Slidell Memorial Hospital CHNA consisted of St. Tammany Parish, Washington Parish, Pearl River County, and Hancock County which held the majority of these ZIP codes.

Thus, the CNI information compiled for analysis represented 22 ZIP codes as part of the Slidell Memorial Hospital CHNA and reflected areas with the largest number of residents who utilize health care services from the health institution.

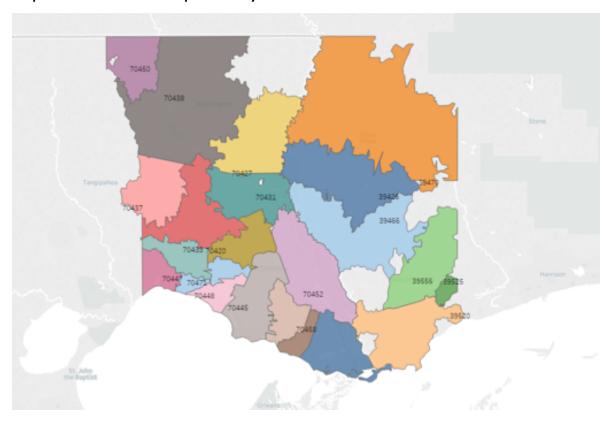
The information collected from these specific ZIP codes will assist in future health care planning services, community benefit contributions, and programming efforts. Map 1 represents the primary service area of Slidell Memorial Hospital.

Table 1: Overall Study Area Profile

	Zip	Town	Parish/County
1.	39426	Carriere	Pearl River, MS
2.	39466	Picayune	Pearl River, MS
3.	39470	Poplarville	Pearl River, MS
4.	39520	Bay Saint Louis	Hancock, MS
5.	39525	Diamondhead	Hancock, MS
6.	39556	Kiln	Hancock, MS
7.	70420	Abita Springs	Saint Tammany
8.	70427	Bogalusa	Washington
9.	70431	Bush	St. Tammany
10.	70433	Covington	St. Tammany
11.	70435	Covington	St. Tammany
12.	70437	Folsom	St. Tammany
13.	70438	Franklinton	Washington
14.	70445	Lacombe	St. Tammany
15.	70447	Madisonville	St. Tammany
16.	70448	Mandeville	St. Tammany
17.	70450	Mount Hermon	Washington
18.	70452	Pearl River	St. Tammany
19.	70458	Slidell	St. Tammany

	Zip	Town	Parish/County
20.	70460	Slidell	St. Tammany
21.	70461	Slidell	St. Tammany
22.	70471	Mandeville	St. Tammany

Map 1: Slidell Memorial Hospital –Study Area



Note: Map is not to scale.

The study area for Slidell Memorial Hospital shows that the two parishes and two counties are projected to have a population growth from 2017 to 2022.

St. Tammany Parish contains 254,916 residents and is the largest parish in the study area; Pearl River County in Mississippi is the second-largest with 56,964. (See Table 2.)

St. Tammany Parish is expected to have the largest population change at 5.71 percent or an increase of 14,558 residents.

Table 2: Slidell Memorial Hospital - Area Population Snapshot

	St. Tammany Parish	Washington Parish		Hancock County, MS	Louisiana	USA
2017 Total Population	254,916	47,943	56,964	40,709	4,706,135	325,139,271
2022 Projected Population	269,474	48,142	57,260	42,060	4,839,118	337,393,057
# Change	14,558	199	296	1,351	132,983	12,253,786
% Change	5.71%	0.42%	0.52%	3.3%	2.83%	3.77%

The representation of males and females in the overall study area, the state, and nation are similar. (See Chart 2.)

Chart 2: Gender

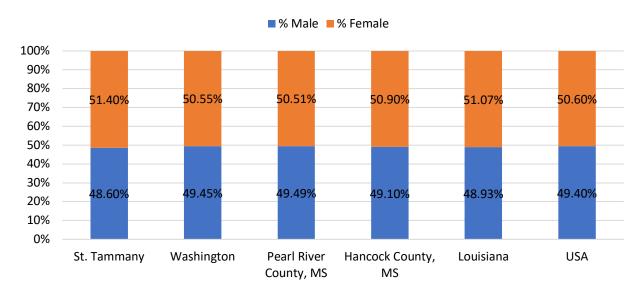


Chart 3 illustrates the distribution of educational attainment among residents in the study area. St. Tammany Parish reports the lowest rate of residents with 'Less than a high school' degree (3.55 percent) for the study area. Washington Parish has the highest number of residents with a high school degree (40.29 percent).

St. Tammany Parish reports the highest rate of residents with a bachelor's degree or higher (30.72 percent) for the study area; higher than the state (22.42 percent) and the nation (29.59 percent). (See Chart 3.)

Chart 3: Education Level

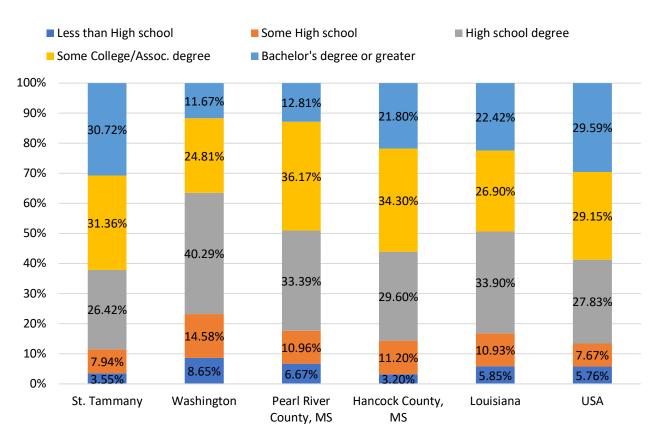


Chart 4 shows the diverse mixture of race/ethnicity represented in the study area. Washington Parish reports the largest black, non-Hispanic population percentage for the study area (29.33 percent); while Pearl River County, Mississippi reports the next highest percent of black, non-Hispanics (12.59 percent).

Hancock County, Mississippi reports the highest white, non-Hispanic population across the study area at 81.80 percent; higher than the state (58.53 percent) and nation (60.77 percent). (See Chart 4.)

Chart 4: Race/Ethnicity

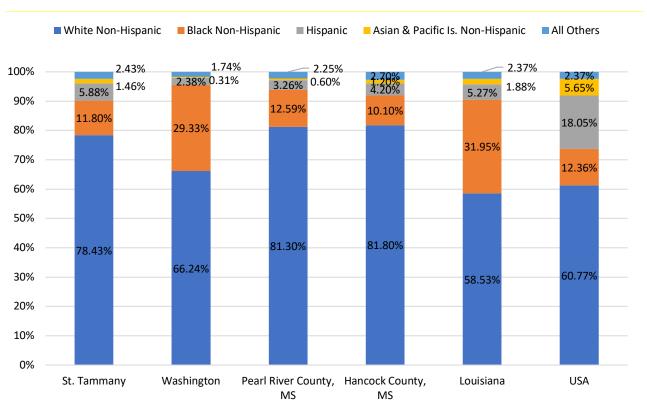


Chart 5 reveals the breakdown of household income by parishes as Washington Parish reports the lowest average household income of the entire study area at \$51,756; this is also lower than state (\$68,011) and national (\$80,853) averages.

St. Tammany Parish reports the highest average household income at \$88,573. Three of the four parishes/counties are below the state and nation averages.

Note: The red line provides a visual of where the state income average lies.

\$100,000 \$88,573 \$90,000 \$80,853 \$80,000 \$68,011 \$70,000 \$58,141 \$60,000 \$52,905 \$51,756 \$50,000 \$40,000 \$30,000 \$20,000 \$10,000 \$0 St. Tammany Washington **Pearl River** Hancock Louisiana USA

Chart 5: Average Household Income

Source: Truven Health Analytics

CNI scores obtained by Truven Health Analytics were analyzed for the ZIP codes that make up the Slidell Memorial Hospital service area. This analysis is an important part of the study. The CNI ZIP code summary provides valuable background information to begin addressing and planning for the community's current and future needs. The CNI provides greater ability to diagnose community needs as it explores ZIP code areas with significant barriers to health care access.

County, MS

County, MS

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 greatest need. It is important to note that a low score (e.g., 1.0) does not imply that attention should not be given to that neighborhood; rather, hospital leadership should explore and identify the specific strategies employed to ensure a low neighborhood score.

Examining the CNI scores of 2017, Chart 6 shows the average CNI score for each of the six study regions under the overall MHCNO scope. The Jefferson Study Area averaged 3.6; indicating that residents faced

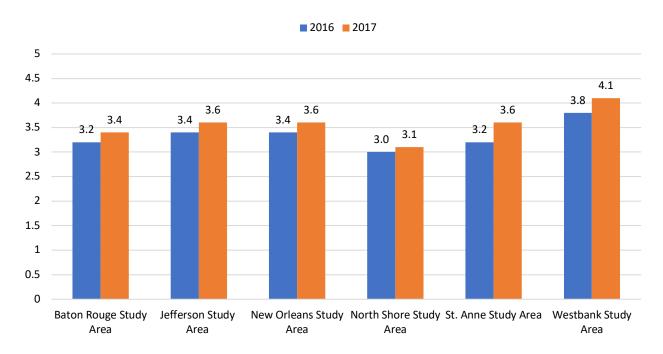
significant socioeconomic barriers to care. The St. Anne study area had a CNI score in 2017 of 3.6; while Baton Rouge had a 2017 CNI of 3.4.

The New Orleans Study Area also reported an average CNI score of 3.6. The West Bank Study Area reported the highest average CNI score at 4.1; indicating that residents face the highest socioeconomic barriers to care when compared to the remaining study areas.

On the polar end, residents in the North Shore Study Area (which includes Slidell Memorial Hospital) reported a lower score (3.1), indicating fewer socioeconomic barriers to care for residents.

Overall, all of the study regions increased their CNI scores from 2016 to 2017 and continue to report scores above the median for the CNI scale, with North Shore Study Area reporting the lowest score (3.1) and the West Bank Study Area reporting the highest (4.1).

Chart 6: Average CNI Scores of MHCNO Regional Profiles



Source: Truven Health Analytics

CNI Score 5.00 to 4.00 (High-socioeconomic barriers) 3.99 to 3.00 1.99 to 1.00 (Low-socioeconomic barriers)

Key Community Needs

According to the Office of Disease Prevention and Health Promotion, a healthy community is "a community that is continuously creating and improving those physical and social environments and expanding those community resources that enable people to mutually support each other in performing all the functions of life and in developing to their maximum potential." This idyllic description is for a healthy community that also has access to health services, ample employment opportunities, high-quality education, affordable, clean housing options, and a safe physical environment. The reduction of poor health outcomes and poor health behaviors are essential in order to build a healthy community. Collaboration and teamwork from community groups, health care institutions, government leaders, and social and civic organizations can also improve the health status of a community. Healthy partnerships can lead to building a strong community infrastructure that addresses community health needs and provides services to prevent and stem preventable diseases.

With the implementation of the PPACA, the pathway to affordable and obtainable health insurance services has been made accessible to once-uninsured residents. Coordinating health services and reducing health care costs are components in the execution of the PPACA. Accessibility and better care coordination to health services can be delivered through health care institutions and regional partners. Slidell Memorial Hospital and their commitment to delivering high-quality health care services in collaboration with regional agencies and organizations can capitalize on existing resources to further expand community assets.

Slidell Memorial Hospital continues to contribute towards regional programming efforts, educational initiatives, and high-quality patient care to improve the health and security of the community. Slidell Memorial Hospital continues their obligation and devotion to their region not only with the completion of their CHNA but also with the implementation strategies and planning efforts involving strong partnerships with community organizations, health institutions, and regional partners through a comprehensive implementation strategy plan. Slidell Memorial Hospital is a robust economic driver in the region with a strong focus on improving the health of the residents in their community and surrounding regions.

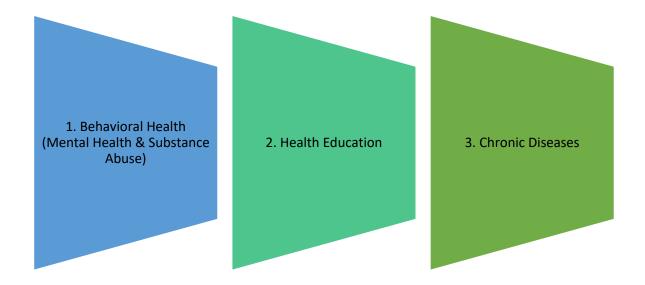
In the summer of 2018, key need areas were identified during the CHNA process through the gathering of primary and secondary data. The identified needs were:

- A. Behavioral Health (Mental Health & Substance Abuse)
- B. Health Education
- C. Chronic Diseases

⁵ Office of Disease Prevention and Health Promotion: https://health.gov/news/blog-bayw/2010/10/healthy-communities-means-healthy-opportunities/

The identified community needs are depicted in order of priority in the chart below. (See Chart 7.)

Chart 7: Slidell Memorial Hospital Community Health Needs 2018



Priority 1: Behavioral Health (Mental Health and Substance Abuse)

Mental disorders and substance use disorders affect people of all racial groups and socioeconomic backgrounds. Mental health is defined as a state of well-being in which every individual realizes their own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to contribute to their community. Mental health affects how we think, feel, and act. It also helps determine how we handle stress, relate to others, and make choices.

Having good mental health also includes the way you feel about yourself, the quality of relationships and the manner in how those relationships are managed. Good mental health is freedom from depression, anxiety, and other psychological issues. It also refers to the overall coping mechanisms of an individual.

Having a behavioral health condition is not the result of one event. Research suggests multiple, linking causes. Genetics, environment, and lifestyle influences whether someone develops a mental health condition. A stressful job or home life makes some people more susceptible, as do traumatic life events like being the victim of a crime.⁷

Mental health is important at every stage of life, from childhood and adolescence through adulthood.⁸ Families and individuals throughout the United States, and in particular Southern Louisiana in particular, are susceptible to the rise of mental illness and substance abuse. In 2014, according to SAMHSA's National Survey on Drug Use and Health, an estimated 43.6 million (18.1 percent) Americans ages 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.⁹

People with serious mental and/or substance use disorders often face higher rates of cardiovascular disease, diabetes, respiratory disease, and infectious disease resulting from elevated risk factors due to high rates of smoking, substance misuse, obesity, and unsafe sexual practices; increased vulnerability due to poverty, social isolation, trauma and violence, and incarceration; lack of coordination between mental and primary health care providers; prejudice and discrimination; side effects from psychotropic medications; and, an overall lack of access to health care, particularly preventive care.¹⁰

More and more providers are approaching patient health with an integrated care model because they realize the importance of treating the whole individual. Behavioral health affects physical health and vice versa. With proper monitoring and treatment, individuals suffering from behavioral health issues can lead healthy, productive lives and be contributing, successful members of the community. The difficulty lies in identifying these issues and linking these individuals with behavioral health services.

Data obtained from the Louisiana Department of Health (LDH) showed in May of 2018, 57,289 adults obtained outpatient mental health services in the state. The number of adults obtaining care has

⁶ World Health Organization: www.who.int/features/factfiles/mental health/en/

⁷ National Alliance on Mental Illness: www.nami.org/Learn-More/Mental-Health-Conditions

⁸ U.S. Department of Health and Human Services: www.mentalhealth.gov/basics/what-is-mental-health

⁹ Substance Abuse and Mental Health Services Administration: www.samhsa.gov/disorders

¹⁰ Substance Abuse and Mental Health Services Administration: www.samhsa.gov/wellness-initiative

increased significantly over the years. Between 2016 and 2017, there was a roughly 50 percent increase in the number of adults obtaining outpatient mental health services (from 15,650 to 23,522 respectively); while in 2017 there was a 140 percent increase from the previous year in the number of adults seen for outpatient services (from 23,522 to 57,289 respectively). (See Chart 8.)

Upon 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 Chart 8.)

2017

Chart 8: Mental Health: Adults receiving Mental Health Services as of May 2018

Source: Louisiana Department of Health

2016

Reasons for not receiving mental health services according to SAMHSA's 2016 National Survey on Drug Use and Health revealed that cost (43.6 percent) was the main reason why adults 18 and older did not receive services, followed by "can handle problem without treatment" (30.6 percent), and "did not know where to go for services" (26.9 percent). 11 (See Chart 9.)

2018

¹¹ Substance Abuse and Mental Health Services Administration: www.samhsa.gov/data/sites/default/files/NSDUH-ServiceUseAdult-2015/NSDUH-ServiceUseAdult-2015.htm

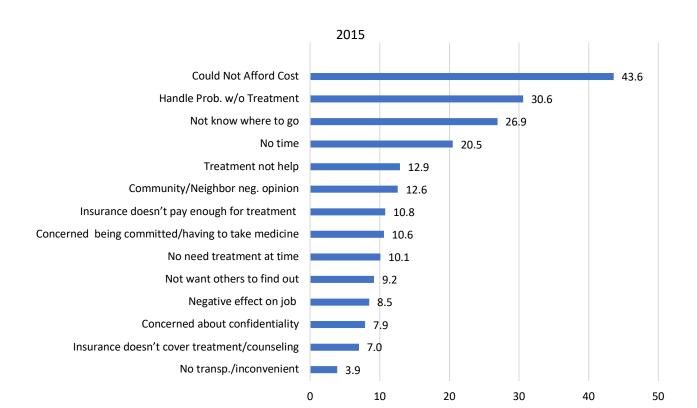


Chart 9: Reasons Not Receiving Mental Health Services (Adults Aged 18 or Older)

Source: Substance Abuse and Mental Health Services Administration

Data from the provider health surveys revealed mental health and substance abuse services were the top two responses that were missing that would improve the health of residents in the community (14.4 percent and 11.2 percent respectively). More than one-third (37.7 percent) disagreed and 29.1 percent strongly disagreed that residents had access to mental/behavioral health providers in their region.

The LDH metrics related to substance abuse show the number of adults receiving substance abuse services, both inpatient and outpatient, has increased exponentially since 2016. In May of 2018, 10,290 adults obtained outpatient substance abuse services in the state. The number of adults obtaining care has increased significantly over the years. Between 2016 and 2017, there was increase in the number of adults obtaining outpatient substance abuse services (from 2,267 to 3,647 respectively); in 2017 there was a 2.8 percent increase in the number of adults seen for outpatient services (from 3,647 to 10,290 respectively. (See Chart 10.)

■ Outpatient ■ Inpatient 14,000 11,505 12,000 10,290 10,000 8,000 6,000 3,936 3,647 4,000 2.399 2,267 2,000 2016 2017 2018

Chart 10: Substance Abuse: Adults Using Service as of May 2018

Source: The Louisiana Department of Health

The consequences of undiagnosed, untreated, or undertreated co-occurring disorders can lead to a higher likelihood of experiencing homelessness, incarceration, medical illnesses, suicide, or even early death. ¹² Individuals with unmet behavioral health needs are not always capable of recognizing they have a problem or seeking care. Oftentimes, this responsibility falls on the patient's support network or points of contact with the health care system or other community-based organizations. Better coordination of services and collaborative efforts among all members of the medical community and county and community service organizations would improve the disconnect occurring in identifying mental health and substance abuse needs and linking residents with services.

Accessibility to Providers and Facilities

There is unmet need for health care providers in Louisiana. As of April 2014, Louisiana had 118 primary care Health Professional Shortage Areas (HPSA), 102 dental HPSAs, and 109 mental health HPSAs. Louisiana has less than half (42.0 percent) of the number of mental health care providers needed to serve the population, compared to just over half (51.0 percent) for the nation as a whole.¹³

Table 3 depicts the ratio of available mental health providers to one resident within the area. St. Tammany Parish, Washington Parish, Pearl River County, and Hancock County report improved mental health provider rates from 2015 to 2018. In 2018, the North Shore study area did not report any

¹² Substance Abuse and Mental Health Services Administration: www.samhsa.gov/disorders/co-occurring

¹³ Henry J. Kaiser Family Foundation: www.kff.org/health-reform/fact-sheet/the-louisiana-health-care-landscape/

parishes or counties having low mental health providers rates when compared to the state. The top U.S. performers report a mental health provider rate of 412:1 for 2018.

The shortage of mental health providers highlights what residents currently face and will continue to face without intervention. The ability to secure treatment and services is impacted by the shortfall of mental health providers in the Slidell Memorial Hospital regional area.¹⁴

There were improvements in Tammany Parish, Washington Parish, Pearl River County, and Hancock County related to preventable hospital stays. While the parishes and counties are not U.S. top performers, the measures have improved signifying strategies that have aided residents in the reduction in the number of stays.

Preventable hospital stays measure the hospital discharge rate for ambulatory care-sensitive conditions per 1,000 fee-for-service Medicare enrollees. The measure looks at people who were discharged from the hospital for conditions that, with appropriate care, can normally be treated without the need for a hospital stay. Examples of these conditions include convulsions, chronic obstructive pulmonary disease, bacterial pneumonia, asthma, congestive heart failure, hypertension, angina, cellulitis, diabetes, gastroenteritis, kidney/urinary infection, and dehydration. Proper diagnosis, along with primary care treatment from a health professional, and addressing the needs of the patient population who are at risk of readmissions have played a role in the reduction of hospital stays. (See Table 3.)

Table 3: Mental Health Providers and Preventable Hospital Stay at Parish Level (2015 Figures on top; 2018 figures on bottom)

	St. Tammany	Washington	Pearl River	Hancock	Louisiana	Top U.S. Performers
Mental Health	816:1	1,407:1	2,899:1	6,509:1	977:1	412:1
Providers	520:1	1,010:1	2,400:1	5,200:1	420:1	330:1
Preventable Hospital Stay (per 1,000 Medicare enrollees)	78	116	102	79	80	41
	61	92	69	68	66	35

Source: County Health Rankings and Roadmaps

Mental Health is an issue that is not only prevalent locally, but on a national scale. Of course, funding prohibits additional access in most cases. Stakeholders called for Slidell Memorial Hospital and other

¹⁴ County Health Rankings and Roadmaps: www.countyhealthrankings.org

¹⁵ County Health Rankings and Roadmaps: www.countyhealthrankings.org/learn/explore-health-rankings/what-and-why-we-rank/health-factors/clinical-care/quality-of-care/preventable-hospital-stays

health systems in the region to increase focus, recruiting, and access to mental health care. Community leaders acknowledged that there have been increases in the past 3-5 years, but more is needed.

Interviewees believed that as our culture becomes more open and comfortable discussing mental health, there will continue to be an increase in resources needed to treat and care for individuals with mental health issues.

Drug Use (Opioid Use) and Alcohol Use

In addition to the growing behavioral health problem in the Slidell Memorial Hospital study region, there is an increased use of drugs. Drug use and its consequences touches every sector of our society. Drug use affects our health and has a significant effect on the criminal justice system. Drug use also endangers the future of our youth. Addiction is a chronic disease, difficult to control as well as being difficult to break. Individuals who take drugs do so for many reasons including environmental influences, genetics, to escape reality, etc. An essential role the community can implement to stem its use is to provide programs to encourage prevention and reinforcement of keeping drugs and alcohol out of neighborhoods and schools; therefore, providing a safe and secure environment for all community residents. Prevention is a cost-effective approach to promoting safe and healthy communities.

SAMHSA reported in its 2016 National Drug Use and Health Survey that 28.6 million residents 12 years or older were current illicit drug users. Marijuana is the most commonly used drug in the U.S. with 24 million users in 2013, followed by 3.3 million people misusing prescription pain relievers. In 2016, 1.4 percent or 3,755 received substance use treatment in the past year for people aged 12 or older. Only 1.4 percent, or 2,950 residents 26 or older, received treatment.¹⁶

Louisiana's percentage of illicit drug dependence or abuse among individuals aged 12 or older was similar to the national percentage in 2013–2014. In Louisiana, about 112,000 individuals aged 12 or older (2.9 percent of all individuals in this age group) per year in 2013–2014 were dependent on or abused illicit drugs within the year prior to being surveyed. The percentage did not change significantly from 2010–2011 to 2013–2014.¹⁷ (See Chart 11.)

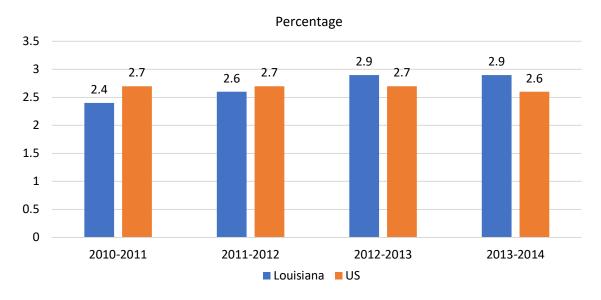
It was also reported in Louisiana, that about 238,000 adults aged 21 or older (7.5 percent of all adults in this age group) per year from 2010 to 2014 reported heavy alcohol use within the month prior to being surveyed. Louisiana's annual average of heavy alcohol use among adults aged 21 or older was similar to the annual average for the nation from 2010 to 2014.¹⁸

Slidell Memorial Hospital

¹⁶ Substance Abuse and Mental Health Services Administration: www.samhsa.gov/data/sites/default/files/2016_ffr_1_slideshow_v5.pdf

¹⁷ Substance Abuse and Mental Health Services Administration: www.samhsa.gov/data/sites/default/files/2015_Louisiana_BHBarometer.pdf ¹⁸ Ibid.

Chart 11: Substance Use – Illicit Drug Dependence or Abuse



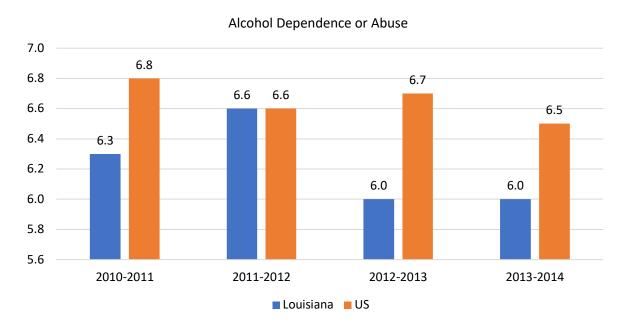
Source: Substance Abuse and Mental Health Services Administration

In addition to the growing use of drugs, in Louisiana, about 228,000 individuals aged 12 or older (6.0 percent of all individuals in this age group) were dependent on or abused alcohol within the year prior to being surveyed in 2013-2014. The percentage did not change significantly from 2010-2011 to 2013-2014. Louisiana's percentage of alcohol dependence or abuse among individuals aged 12 or older was similar to the national percentage in 2013-2014. ¹⁹ (See Chart 12.)

Slidell Memorial Hospital

¹⁹ Ibid.

Chart 12: Alcohol Dependence or abuse among individuals aged 12 or older in Louisiana and the United States



Source: Substance Abuse and Mental Health Services Administration

Data reveal Louisiana is experiencing a high number of drug overdose deaths. The CDC reported ageadjusted rate of drug overdose deaths in Louisiana in 2014 was 16.9 per 100,000, higher than the national rate of 14.7 per 100,000. Unlike, the 6.5 percent national increase in drug overdose-related deaths between 2013 and 2014, the rate in Louisiana decreased by 5.1 percent over that same period.²⁰

Reviewing Health Behavior ranking scores from County Health Rankings and Roadmaps, St. Tammany Parish has the best ranking overall when compared to all other parishes in Louisiana with a ranking of one in both 2015 and 2018. Pearl River County, MS significantly improved their rankings scores from 44 in 2015 to ten in 2018. Both Hancock County, MS (2015: 11 ranking; 2018: 10 ranking) and Washington Parish (2015: 52 ranking; 2018: 50 ranking) reported a slight increase from 2015 to 2018. Health Behavior ranking scores calculate behaviors that effect the overall health of an individual such as adult smoking and obesity, food environment index, physical inactivity, access to exercise, excessive drinking, alcohol-impaired deaths, sexually transmitted infections, and teen births. It is important to review these ranking scores in order to address specific issues that often plague communities.

Substance abuse has reached epidemic levels in communities across the nation; especially within vulnerable populations. Drug abuse can alter a person's thinking and judgment, leading to health risks, including addiction, drugged driving, infectious disease, and potential harm of unborn babies.²¹ Drug abuse often co-occurs with mental health issues with one exacerbating the other. Due to the complex

²⁰ Henry J. Kaiser Family Foundation: www.kff.org/health-reform/fact-sheet/the-louisiana-health-care-landscape/

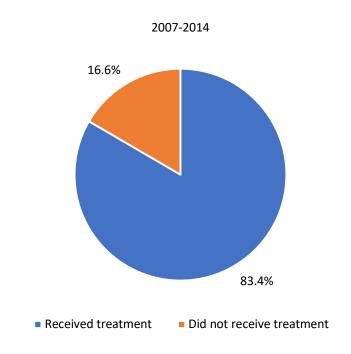
²¹ National Institute on Drug Abuse: www.drugabuse.gov/drugs-abuse/commonly-abused-drugs-charts

nature of co-occurring disorders, providers have difficulty diagnosing and treating both disorders effectively. Further compounding the issue, patients often also present with physical health issues.

Successful treatment of drug abuse is, most often, a life-long process. Treatment is intensive and expensive and requires a significant investment of time and effort on behalf of health professionals, social services, community-based organizations, and the patient's support network, not to mention the patients themselves. Oftentimes, people around the individual require mental and social services as well. Additionally, substance abuse treatment often requires multiple attempts to be deemed successful.

In Louisiana, among individuals aged 12 or older with illicit drug dependence or abuse, about 17,000 individuals (16.6 percent) per year from 2007 to 2014 did not receive treatment for their illicit drug use. (See Chart 13.)²²

Chart 13: Past Year Treatment for Illicit Drug Use Among Individuals Aged 12 or Older With Illicit Drug Dependence or Abuse in Louisiana (Annual Average, 2007–2014)



Source: National Institute on Drug Abuse

Slidell Memorial Hospital

²² Ibid.

Among individuals needing substance use treatment who unsuccessfully sought it, the lack of adequate health insurance or an inability to afford the cost of treatment was the most often cited reason for not getting receiving services. ²³ Many agencies struggle with funding sources to meet the needs of the ever-increasing population requiring assistance with substance abuse. This problem requires a concerted effort on behalf of the entire community of service providers to support individuals with substance abuse issues by coordinating resources and increasing community outreach.

Drug addiction is treatable and can be successfully managed. Parents, teachers, community leaders, social and civic organizations, and health care institutions all play a vital role in educating residents and preventing drug use and addiction.

According to SAMSHA there are 278 mental health and substance abuse treatment facilities (outpatient and inpatient) in Louisiana.²⁴ (See Map 2.) Behavioral health residential treatment facilities are essential for patients who seek and need care. Mental health services sought at health care facilities can reduce health costs and free up limited resources. Studies indicate that people use medical services 90 percent less frequently after receiving appropriate mental health care. Mental health services also reduce the risk of chronic diseases related to stress, anxiety, and substance abuse.²⁵

Utilizing a residential program at a treatment facility oftentimes is the best option for someone overwhelmed with the effects of mental illness. These programs benefit the patient's family as well by offering reassurance and the family is confident that their loved one are receiving the treatment they need in a secure environment surrounded by professionals. Outfitting in-patient treatment facilities with information on other entities that provide mental and physical health and other support services ensures patients are linked with the services they need to maintain recovery upon discharge. Services from a rehabilitation center is often the most progressive choice for sufferers. Inpatient and outpatient care provides patients with needed treatment and services; thereby, alleviating symptoms for the greater benefit of the patient.

Mental health treatment centers are beneficial in the initial diagnosis stage of mental illness and access to treatment centers must be readily available to care for those patients in need.

²³ Substance Abuse and Mental Health Services Administration: www.samhsa.gov/newsroom/press-announcements/201509170900

²⁴ SAMSHA: https://findtreatment.samhsa.gov/locator?sAddr=Louisiana%2C%20USA

²⁵ Physician One Urgent Care: https://physicianoneurgentcare.com/blog/importance-mental-health-services/



Map 2: Behavioral Health Treatment Services in Louisiana

Source: Substance Abuse and Mental Health Services Administration

Community leaders reported that substance abuse is an issue locally and one that spans across the country. Further, it is an issue that is typically prevalent in poorer communities. Nationally, there has been an upswing in opioid issues and that is no different in the Slidell Memorial Hospital service area.

Interviewees cited a growing concern for the rise of opioids in the region. One stakeholder felt that the use of opioids has surpassed all other substance abuse issues in the region and should be treated as the number one priority. Of course, that does not exclude alcohol, tobacco, and other illicit drugs from the conversation. Many interviewees echoed the same sentiments – alcohol and tobacco use are engrained in "Southern culture" and it is going to take years of education to change people's habits and choices. Stakeholders acknowledged the solution is still years away, as it will take a new generation to learn to stay clear from these substances.

When it comes to treating these issues, stakeholders acknowledged progress in terms of treatment and access to care, but there remains work to be done. Specifically, funding and location of services are often barriers to receiving care. Typically, to receive care, treatment centers need to be conveniently located. Further, funding is a necessity for treatment. As funding sources shrink, locally and federally, it prevents the expansion of treatment in communities that need it most.

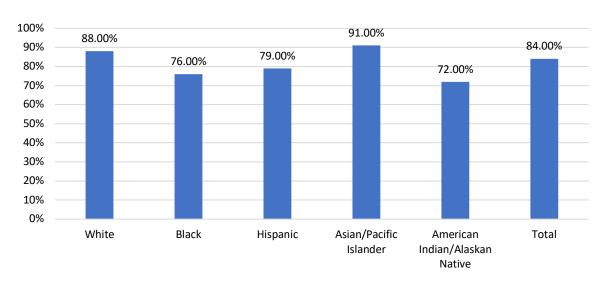
Finally, substance abuse and mental health often go hand in hand. This was repeated by stakeholders and observed by Tripp Umbach in communities across the country. Access to care needs to be interwoven through mental health and substance abuse.

Priority 2: Health Education

Education about health in schools is instrumental to laying a foundation of basic health knowledge and life skills to improve overall public health. Hungry or sick children do not perform well in classrooms compared to their healthy counterparts. Public health policies like the free/reduced-price lunch and free/low-cost health programs help to close these gaps. Physical education as part of a school's curriculum provides valuable knowledge regarding the importance of physical activity and other healthy behaviors to stay healthy.²⁶

Nationally, 84 percent of students graduated from high school on time in 2016 and this percentage varies by race/ethnicity. (See Chart 14). At the state level, 79 percent of students in Louisiana graduated from high school on time in 2016.²⁷

Chart 14: Adjusted cohort graduation rate (ACGR) for public high school students, by race/ethnicity: 2015–16.



Source: U.S. Department of Education, Office of Elementary and Secondary Education, Consolidated State Performance Report, 2015–16.

²⁶ National Center for Biotechnology Information: www.ncbi.nlm.nih.gov/pmc/articles/PMC4691207/#R9

²⁷ National Center for Education Statistics: https://nces.ed.gov/programs/coe/indicator_coi.asp

Reading and reading comprehension skills are important to helping us understand and interact with the world around us. The Nation's Report Card is the largest continuing and nationally representative assessment of what our nation's students know and can do in subjects such as mathematics, reading, science, and writing. Standard administration practices are implemented to provide a common measure of student achievement. The National Assessment of Educational Progress (NAEP) is a congressionally mandated project administered by the National Center for Education Statistics (NCES), within the U.S. Department of Education and the Institute of Education Sciences (IES).²⁸ The NAEP reading scale ranges from zero to 500.

The 2017 Reading State Snapshot Report revealed that the average reading score of Louisiana eighth grade students was 257; lower than the national average score of 265. When compared to the rest of the United States, Louisiana's average reading score was lower than 41 other states/jurisdictions, not significantly different than nine, and only higher than the District of Columbia. The 2017 report also indicated score gaps among different student groups. Black students had an average score that was 27 points lower than white students. Hispanic students had an average score that was 16 points lower than that of white students. Students who were eligible for free/reduced-price school lunch, an indicator of low family income, had an average score that was 24 points lower than students who were not eligible. This performance gap was not significantly different from that in 1998 (20 points).²⁹

In recognition of the serious lack of educational performance among students in Louisiana school districts, the Louisiana Department of Education created and implemented the Louisiana Believes initiative. Louisiana Believes is a cohesive academic plan that raises expectations and educational outcomes for students through five priority areas: access to quality early childhood education, academic alignment in every school and classroom, teacher and leader preparation, pathways to college or a career, and supporting struggling schools. As a result of this focus, over the past five years, Louisiana has seen an increase in student performance in every measure both locally and nationally.³⁰

A large percentage of the population meets the ALICE (Asset limited, Income constrained, Employed) criteria established by the United Way. This population struggles to make ends meet and is often one unexpected car repair or medical bill or extended illness from disaster. This population often has to choose between buying high-quality, nutritious foods and paying the electric bill.

Unchecked, obesity can lead to a host of medical conditions and reduce positive health outcomes. Community leaders discussed increasing awareness and education programs to help residents understand the consequences of unhealthy choices. And, the importance of bringing these programs into the communities and schools for maximum impact.

County Health Rankings and Roadmaps recommends that investments in education from early childhood through adulthood to boost employment and career prospects:³¹

²⁸ US Department of Education: www.nationsreportcard.gov/about.aspx

²⁹ The Nation's Report Card:

https://nces.ed.gov/nationsreportcard/subject/publications/stt2017/pdf/2018039LA8.pdf

³⁰ Louisiana Department of Education: www.louisianabelieves.com/resources/about-us

³¹ County Health Rankings and Roadmaps:

www.countyhealthrankings.org/sites/default/files/state/downloads/CHR2018 LA.pdf

- Strengthen parents' skills, including ways to foster children's learning and development in home and community settings.
- Undertake policy initiatives to improve pre-K-12 education in the classroom, school, district or state level, focusing on raising school attendance and high school graduation rates.
- Implement community and school-based supports that will improve access to and quality of early childhood care and education, beginning in infancy.
- Offer alternative learning models and technology to help students develop social and work-ready skills.
- Support higher education opportunity for all through college application assistance and financial aid.

According to the American Public Health Association (APHA), chronic diseases such as heart disease, diabetes, and obesity are among the most common and costly health conditions impacting the nation's health. Such conditions account for seven out of 10 deaths annually, while managing and treating chronic disease eats up more than three-quarters of the country's health care costs. The APHA goes on to indicate that chronic diseases are not inevitable but often entirely preventable and are associated with unhealthy and risky behaviors; identifying just four behaviors as the root cause of a large portion of the nation's chronic disease burden. The four behaviors are physical inactivity, poor diet, smoking, and binge drinking. The Louisiana Department of Health's Diabetes and Obesity Action Report showed that Louisiana Medicaid insurers paid more than \$118 million in 2015 for claims related to members identified as obese and more than nine million dollars for claims related to hospitalizations with diabetes as the primary diagnosis. 33

Sexual Health

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.³⁴

Sexual health is important to individual health, both physical and mental, and a component of the broader, national public health conversation. In 2001, the United States Surgeon General released The Surgeon General's Call to Action to Promote Sexual Health and Responsible Sexual Behavior (Call to Action). This report 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

³² American Public Health Association: https://apha.org/what-is-public-health/generation-public-health/our-work/healthy-choices

³³ Louisiana Department of Health: http://ldh.la.gov/assets/docs/BayouHealth/ACT210RS2013522.pdf

³⁴ World Health Organization: http://www.who.int/topics/sexual health/en/

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.³⁵

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 15). There was no change in the teen birth rate between the 2015 and 2018 CHNA study periods. (See Table 4.)

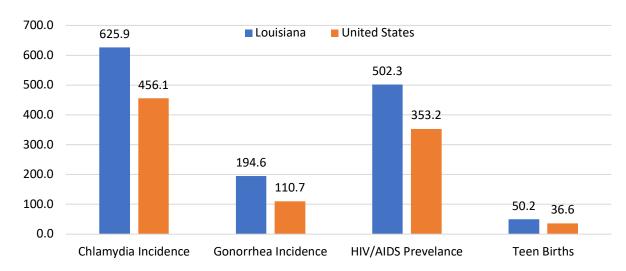


Chart 15: Comparison of Adverse Sexual Health Outcomes: Louisiana vs. United States

Source: Community Commons

The rate for all three sexually transmitted infection measures rose in Louisiana and across the study area from the 2015 CHNA to the current CHNA, with the exception of the HIV/AIDS prevalence rate in Pearl River County, MS. (see Table 4).

³⁵ Centers for Disease Control and Prevention: www.cdc.gov/sexualhealth/docs/SexualHealthReport-2011-508s.pdf

Table: 4: Rates of Adverse Sexual Health Outcomes from 2015 to 2018

Parish	Teen Birth Rate (per 1,000 population)		(per 1,000 Rate		Gonorrhea Incidence Rate (per 100,000 population)		HIV/AIDS Prevalence Rate (per 100,000 population)	
	2015	2018	2015 2018		2015	2018	2015	2018
St. Tammany	29.7	29.7	214.5	306.2	52.8	56.1	134.6	155.1
Washington	61.3	61.3	454.0	473.9	108.2	118.5	381.0	412.2
Pearl River, MS	55.0	55.0	332.0	355.9	61.0	96.2	198.1	190.3
Hancock, MS		47.9		294.0		68.0		176.9
Louisiana	50.2	50.2	597.9	625.9	194.0	194.6	451.8	502.3
Mississippi	59.4	59.4	774.0	655.1	230.7	188.1	338.3	366.8
USA	36.6	36.6	456.7	456.1	107.5	110.7	340.4	353.2

Source: Community Commons

Preventative Education

Receiving age appropriate routine preventive health care such as health screenings and vaccinations is important to staying healthy. Chronic diseases (e.g., heart disease, cancer, and diabetes) are responsible for seven of every 10 deaths among Americans each year and account for 75 percent of the nation's health spending. Most Americans underuse preventive services and vulnerable populations with social, economic, or environmental disadvantages are even less likely to use these services. Routine preventive health care is essential to good health; providers are able to detect and treat health issues early, when treatment works best; preventing onset and/or progression of chronic conditions. Nationally, Americans use preventive services at about half the recommended rate. Individuals without insurance or the financial means to pay out of pocket are less likely to take advantage of routine preventive and primary care. These individuals consume more public health dollars and strain the resources of already overburdened facilities dedicated to free and low-cost care.³⁶

Successful management of chronic diseases in an outpatient setting is essential to managing overall health care costs. According to the American Diabetes Association, in 2017, care for people diagnosed with diabetes accounts for one in four health care dollars in the US. The total estimated cost of diagnosed diabetes was \$327 billion in direct medical costs; a 26 percent increase from figures released in 2012. Hospital in-patient care and prescription medications to treat complications of diabetes accounted for 60 percent of the total medical cost (30 percent in each category). Diabetics without

³⁶ Centers for Disease Control and Prevention: www.cdc.gov/healthcommunication/toolstemplates/entertainmented/tips/PreventiveHealth.html

insurance have 60 percent fewer physician office visits and are prescribed 52 percent fewer medications contributing to 168 percent more emergency department visits than their insured counterparts.³⁷

It will take time for the benefits of recent efforts related to preventive health education and increased availability of services to be fully realized by residents in the Slidell Memorial Hospital service area. Current data from Truven Health Analytics, Community Commons, County Health Rankings, American's Health Rankings, and the Louisiana Department of health all suggest that residents of the Slidell Memorial Hospital service area experience high levels of health issues related to lack of routine preventive health care.

The entire Slidell Memorial Hospital study area reports higher rates of preventable hospital events per 1,000 Medicare enrollees when compared to the nation. (See Chart 16). In 2017, Louisiana ranked 47th out of 50 states in preventable hospitalizations in America's Health Rankings.

The preventable hospital events 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 relevant because analysis of ACS discharges can demonstrate a possible "return on investment" from interventions that reduce admissions (for example, for uninsured or Medicaid patients) through better access to primary care resources.

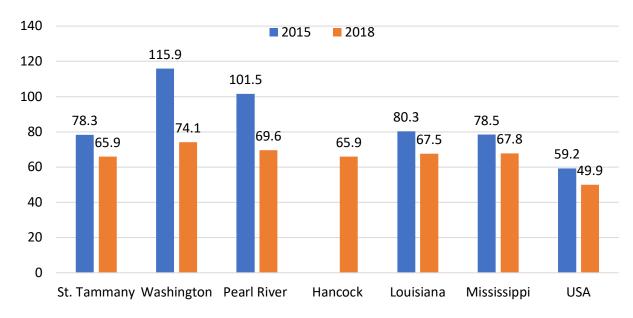


Chart 16: Preventable Hospital Events, Age-Adjusted Discharge Rate (Per 1,000 Medicare Enrollees)

Source: Community Commons

³⁷ American Diabetes Association: www.diabetes.org/advocacy/news-events/cost-of-diabetes.html

Across the study area, Table 5 shows some preventive care utilization rates that are lower than the nation. Secondary data collected during the CHNA process shows that St. Tammany residents fare consistently better in most health measures when compared to the rest of the study area. Washington Parish residents report low numbers of colon cancer screening and low numbers of residents who received mammograms in the past two years when compared to the remaining parishes/counties. There is a large reporting percentage of residents who have never been screened for HIV/AIDS.

Table 5: 2018 Preventive Care Utilization in the Slidell Memorial Hospital Service Area

	Medicare Enrollees with Mammogram in Past 2 Years – Percent Females	% Adults Screened for Cervical Cancer	% Adults Screened for Colon Cancer	% Medicare Enrollees with Diabetes per Hemoglobin A1c Test	% Adults Never Screened for HIV / AIDS
St. Tammany	67.80%	77.70%	64.60%	84.70%	58.76%
Washington	57.70%	80.20%	52.10%	81.90%	61.78%
Pearl River	59.20%	71.70%	59.30%	86.30%	64.52%
Hancock	60.00%	79.70%	55.80%	80.60%	72.28%
Louisiana	61.50%	78.10%	54.50%	52.70%	56.23%
Mississippi	57.30%	78.10%	54.00%	84.10%	61.18%
USA	63.10%	78.50%	61.30%	N/A	62.79%

Source: Community Commons

County Health Rankings and Roadmaps reveals the vast differences between St. Tammany Parish and Washington Parish on several measures. (See Table 6.)

The overall rankings in health outcomes represent how healthy counties are within the state. The healthiest county in the state is ranked one. The ranks are based on two types of measures: how long people live and how healthy people feel while alive.

The overall rankings in health factors represent what influences the health of a county. They are an estimate of the future health of counties as compared to other counties within a state. The ranks are based on four types of measures: health behaviors, clinical care, social and economic, and physical environment factors.

Social and economic factors vary depending on where we live and by our racial/ethnic background. The following four data graphics illustrate differences among counties and by racial/ethnic groups in social and economic opportunities for health in Louisiana. These graphics show that it is important to explore differences by place and race/ethnicity in order to tell a more holistic story about the health of a community.

Table 6: 2018 County Health Rankings

	St. Tammany (64 parishes)	Washington (64 parishes)	Pearl River (82 counties)	Hancock (82 counties)
Health Outcomes	2	60	20	6
Health Factors	1	49	19	21
Mortality (Length of life)	4	62	33	10
Morbidity (Quality of life)	2	52	10	5
Health Behaviors	1	50	10	11
Clinical Care	3	45	35	44
Social and Economic Factors	3	51	29	14
Physical Environment	40	25	64	56

Source: County Health Rankings and Roadmaps

Priority 3: Chronic Disease

According to the Centers for Disease Control and Prevention, half of all Americans live with at least one chronic disease, like heart disease, cancer, stroke, or diabetes. Along with other chronic diseases they are the leading causes of death and disability in America, as well as the leading driver of health care costs.³⁸ A chronic disease is broadly defined as lasting more than one year, generally incurable yet manageable with a proper treatment plan and medication. Tobacco use (secondhand smoke exposure), poor nutrition, lack of physical activity, and excessive alcohol use are some risk behaviors that contribute to developing a chronic disease. Nationally, chronic diseases cost \$2.7 trillion in annual health care costs.³⁹

The Partnership to Fight Chronic Disease projected the total cost of chronic disease from 2016-2030 in Louisiana as \$612 billion. In 2015, 2.9 million people in Louisiana had at least 1 chronic disease, 1.2 million had 2 or more chronic diseases. Chronic diseases could cost Louisiana \$28.8 billion in medical costs and an extra \$12 billion annually in lost employee productivity (average per year 2016-2030). It was also revealed that in Louisiana, 16,500 lives could be saved annually through better prevention and treatment of chronic disease.⁴⁰

It was reported that 19.9 percent of health providers surveyed identified that, overall, chronic disease is a top health concern affecting residents in the community. However, following a healthy diet, engaging in physical activity, and avoiding risky behaviors can significantly improve and influence one's overall health, mentally and physically. Health management can be achieved permanently with knowledge and

³⁸ Centers for Diseases Control and Prevention: www.cdc.gov/chronicdisease/index.htm

³⁹ Ibid

⁴⁰ Partnership to Fight Chronic Disease: www.fightchronicdisease.org/states/louisiana

practice; thereby, reducing the likelihood that an individual develops a chronic disease. Prevention related to exercising, eating well, avoiding tobacco and excessive alcohol use, as well as obtaining regular health screenings from a health care provider can prevent chronic diseases and improve the quality of life for an individual.

The CHNA has identified that poor health behaviors such as smoking, physical inactivity, and factors which contribute to being obese are problems that plague residents in the Slidell Memorial Hospital study area.

County Health Rankings and Roadmaps provides reliable local data and evidence to communities to assist them in identifying opportunities to improve the health of their community. ⁴¹ Data from County Health Rankings and Roadmaps reported that health behaviors in Washington Parish rose when comparing ranking data from 2015 to 2018. The ranking snapshot allows communities to compare where they are positioned within Louisiana as each parish is ranked. Parishes that have a high rank, e.g. 1 or 2, are considered to be the "healthiest." Louisiana has 64 parishes overall; therefore, Washington Parish ranks poorly in its current standing compared to St. Tammany Parish. Pearl River and Hancock County in Mississippi both decreased in their ranking scores in Health Behaviors. (See Chart 17).

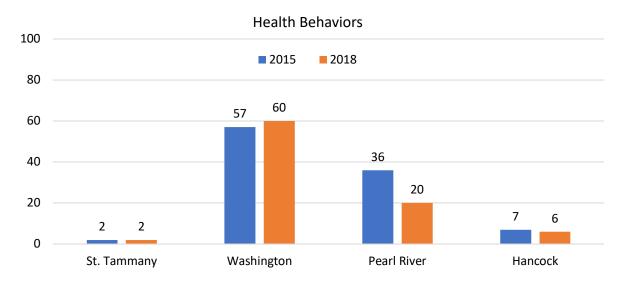


Chart 17: County Health Rankings and Roadmaps Health Behaviors

Source: County Health Rankings and Roadmaps

⁴¹ The County Health Rankings & Roadmaps program is a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute.

Obesity

The worldwide obesity rate has more than tripled since 1975. In 2016, more than 1.9 billion adults, 18 years and older, were overweight. Of these, over 650 million were obese. Worldwide, more than one-third of adults (39.0 percent) aged 18 years and over were overweight in 2016, and 13.0 percent were obese. Most of the world's population lives in countries where being overweight and obesity kills more people than those who are underweight. 41 million children under the age of 5 were overweight or obese in 2016.⁴²

Americans have progressively grown more obese as a nation. The American Heart Association (AHA), reports that nearly 70 percent of American adults are overweight or obese. It is defined that individuals who have a body mass index (BMI) of more than 30 are considered obese. Being obese has direct links to health conditions such as heart disease, stroke, high blood pressure, and diabetes, etc. ⁴³ Communities throughout the U.S. are deeply affected with the aftermath of the obesity epidemic. Communities are seeing young children diagnosed as being overweight or obese. The CDC reports the prevalence of obesity was 18.5 percent and affected about 13.7 million children and adolescents. Unfortunately, obesity prevalence was 13.9 percent among 2- to 5-year-olds, 18.4 percent among 6- to 11-year-olds, and 20.6 percent among 12- to 19-year-olds and childhood obesity is also more common among certain populations. ⁴⁴ (See Chart 18.) Hispanics (25.8 percent) and non-Hispanic blacks (22.0 percent) had higher obesity prevalence than non-Hispanic whites (14.1 percent).

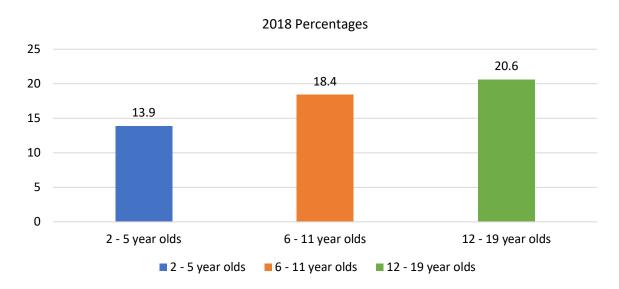


Chart 18: Obesity Prevalence Nationally

Source: American Heart Association

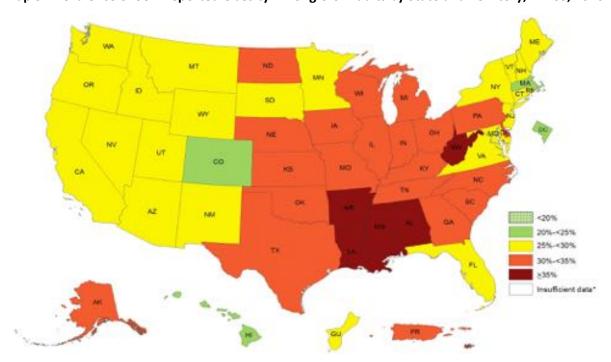
⁴² World Health Organization: www.who.int/news-room/fact-sheets/detail/obesity-and-overweight

⁴³ American Heart Association: www.heart.org/HEARTORG/HealthyLiving/WeightManagement/Obesity/Obesity-Information UCM 307908 Article.jsp#.W3rw9S2ZNm8

⁴⁴ Centers for Disease Control and Prevention: www.cdc.gov/obesity/data/childhood.html

Obesity can raise blood cholesterol and triglyceride levels, lower "good" HDL cholesterol levels, increase blood pressure, and induce diabetes; it also increases the risk for heart disease and stroke.⁴⁵

The Centers for Diseases Control and Prevention identified all U.S. states having more than 20 percent of adults with obesity. (See Map 3). More than one-third (35 percent) or more adults had obesity in five states (Alabama, Arkansas, Louisiana, Mississippi, and West Virginia). It was revealed that the South had the highest prevalence of obesity (32.0 percent), followed by the Midwest (31.4 percent), the Northeast (26.9 percent), and the West (26.0 percent).



Map 3: Prevalence of Self-Reported Obesity Among U.S. Adults by State and Territory, BRFSS, 2016

Source: Centers for Disease Control and Prevention

Americans are consuming more empty calories and exercising less. This trend has led to many becoming overweight or obese.

Exploration of data from Community Commons revealed that slightly more than one-third of residents in St. Tammany (40.4 percent) and Washington Parish (36.2 percent) are overweight. These figures are higher than the state (34.5 percent)

⁴⁵ http://www.heart.org/HEARTORG/HealthyLiving/WeightManagement/Obesity/Obesity-Information_UCM_307908_Article.jsp#.W3xugC2ZNm8

⁴⁶ Centers for Disease Control and Prevention: www.cdc.gov/obesity/data/prevalence-maps.html

However, reviewing information related to obese residents, Washington Parish reports the highest rate of residents who are obese in 2018 (37.40 percent); this is above St. Tammany Parish (27.50 percent), the state (34.40 percent) and national (27.50 percent) rates. (See Chart 19.)

Changes in behavior is often difficult and requires more discipline as people get older. Individuals who are overweight and or obese require a lifestyle change. The American Heart Association recommends obese patients participate in a medically supervised weight loss program two or three times a month for at least six months. The treatment plan for weight loss involves eating fewer calories than your body needs, getting aerobic exercise for 30 minutes most days of the week, and learning the skills to change unhealthy behaviors.⁴⁷

There are ample strategies and methods available which can assist those who are looking to lose weight and the most basic plans include the incorporation of a healthy diet and physical activity.

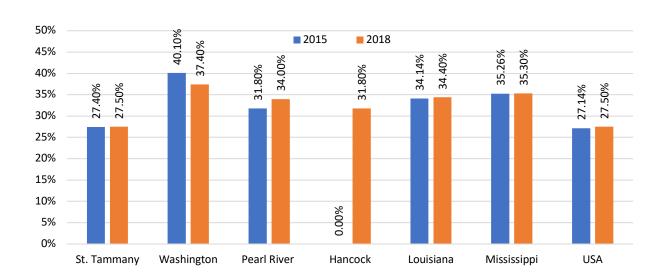


Chart 19: Obese Adults

Source: Community Commons

Community leaders noted that much improvement has been made in educating residents regarding the importance of eating healthy foods and exercising, but residents of the North Shore region service area continue to struggle with obesity. Healthy foods are still expensive and not available in all communities.

A large percentage of the population meets the ALICE (Asset limited, Income constrained, Employed) criteria established by the United Way. This population struggles to make ends meet and often has to choose between buying high-quality, nutritious foods or paying for living necessities.

⁴⁷ American Heart Association: www.heart.org/HEARTORG/HealthyLiving/WeightManagement/Obesity/Obesity-Information_UCM_307908_Article.jsp#.W3rw9S2ZNm8

Data from the health providers surveyed revealed the top health factors, from their prospective, that contribute to the health affecting residents are: Health literacy/overall education (16.2 percent), Access to health care (14.2 percent), and Obesity/poor diet/lack of exercise (11.0 percent). The information obtained from health providers also resonates with data collected from community leaders.

Lack of Physical Activity

Physical activity increases an individual's energy, and can help an individual lose weight, as long as they don't eat more to compensate for the extra calories they burn. Physical activity in an important element to an individual trying to lose and/or maintain their weight. Being physically active is an important staple to maintaining good mental and physical health. Physical activity can improve one's health and reduce type 2 diabetes and cardiovascular diseases. Exercising and being physically active can have long-term positive health benefits. It is essential for Americans to obtain the recommended amount of regular physical activity. To improve overall cardiovascular health, the AHA suggests 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 goal to remember. You will also experience benefits even if you divide your time into two or three segments of 10 to 15 minutes per day. For individuals who would benefit from lowering their blood pressure or cholesterol, it is recommended 40 minutes of aerobic exercise of moderate to vigorous intensity three to four times a week to lower the risk for heart attack and stroke.⁴⁸

Some examples of moderate exercise include activities such as walking briskly (3 miles per hour or faster, but not race-walking), water aerobics, bicycling slower than 10 miles per hour, tennis (doubles), ballroom dancing, and general gardening. While vigorous aerobic activities include: race walking, jogging, or running, swimming laps, tennis (singles), aerobic dancing, bicycling 10 miles per hour or faster, jumping rope, heavy gardening (continuous digging or hoeing), and hiking uphill or with a heavy backpack.

Physical activity is an important component to preventing heart disease, the leading cause of death in U.S. In order to improve overall cardiovascular health, the frequency and intensity goals need to be met.

One-third of residents in Washington Parish (33.6 percent), and one-quarter of residents in both Pearl River (29.4 percent) and Hancock County (29.7 percent) reported that they did not engage in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise. This indicator is relevant as current behaviors are determinants of future health and this indicator may illustrate a cause of significant health issues, such as obesity and poor cardiovascular health. It is also important to note that the parish and county percentages are higher than the state and nation. (See Table 7.)

Slidell Memorial Hospital

⁴⁸ American Heart Association: www.heart.org/en/healthy-living/fitness/fitness-basics/aha-recs-for-physical-activity-in-adults

Table 7: Physical Inactivity (No Leisure Time Physical Activity)

	Percent Population with no Leisure Time Physical Activity
St. Tammany	21.6
Washington	33.6
Pearl River	29.4
Hancock	29.7
Louisiana	28.2
USA	21.8

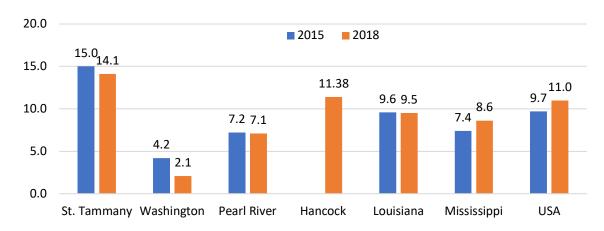
Source: Community Commons

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 St. Tammany Parish (14.1) in 2018 when compared to Washington Parish (2.1). This rate is also higher than the state (9.49) and the nation (11.0). Unfortunately, Washington Parish (2.1 per 100,000 population) has fewer numbers of recreation and fitness facilities when compared to the nation (11.0 per 100,000 population). (See Chart 20.)

With more than one-third of Lafourche and Terrebonne residents not engaging in any type of physical activity (34.7 percent and 36.2 percent), options to provide more fitness facilities to the community should be explored.

The below data 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.

Chart 20: Recreation and Fitness Facility Access Rate (per 100,000 population)



Source: Community Commons

Community stakeholders interviewed reported that obesity and diabetes were lingering community health issues in the region. They associated these two chronic issues to generations of poor diet and a consistent reduction in physical activity. Community leaders felt that the culture of these communities contributed to these issues – particularly, the propensity of eating poorly and not eating enough wholesome and nutritious foods. As observed by Tripp Umbach and seen in many other communities, limited income, accessibility, education, information, and individual interests play a role in the obesity and diabetes epidemics.

As mentioned, respondents felt that an increase in healthy foods in the community could be part of the solution for obesity and diabetes. However, respondents acknowledged the fact that there needs to be a culture change as well. Residents need to choose to eat healthy; providing healthy food is the initial first step. Residents need to learn to want to eat healthy and make better decisions.

Unhealthy, pre-packaged food is often cheaper, which lends to the higher likelihood of it being consumed in poorer communities. Accessibility and affordability are major barriers in correcting the diabetes and obesity issues.

In regard to physical activity, financial resources are major barriers in exercising. Gym memberships, participation on sports teams for kids, proper sports equipment, and available free time from employment are all factors that prevent community members in poorer areas from exercising.

Primary data from surveyed health providers reported that healthy food options is a resource/service that is missing from the community that would improve the health of residents (10.8 percent). Health providers also reported that obesity/poor diet/lack of exercise (14.1 percent) was a top health concern affecting residents in the community.

Support from state and local organizations along with civic and social groups can change regional policies and community infrastructure. Building clean safe parks, adding sidewalks, bike paths, and recreational space can improve and provide a healthy environment for the region. To reverse and combat the obesity epidemic, changes need to be implemented and physical activity needs to be part of the equation.

Conclusion

Slidell Memorial Hospital will continue to work to close the gaps in health disparities and continue to improve health services for residents by leveraging the region's resources and assets; while existing and newly developed strategies can be successfully employed. 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 strengthen new developments.

The collection and analysis of primary and secondary data armed the Working Group with sufficient data and resources to identify key health needs. Local, regional, and statewide partners understand the CHNA is an important building block towards future strategies that will improve the health and well-being of residents in their region. Slidell Memorial Hospital will work closely with community organizations and regional partners to effectively address and resolve the identified needs. As the completion of the 2018 CHNA is finalized, an internal planning team from Slidell Memorial Hospital will begin the framework for the implementation strategy phase and its ongoing evaluation.

Community stakeholders and health providers are specific groups who have knowledge, relationships, and treat the underserved, disenfranchised, and hard-to-reach populations. Data from these specific groups have and will continue to assist Slidell Memorial Hospital's leadership in reducing the challenges residents often face when seeking services.

Slidell Memorial Hospital took into consideration the ability to address the regions identified needs and viewed the overall short and long-term effects of undertaking the task. Slidell Memorial Hospital will address the identified needs and view them as positive and encouraging changes. Slidell Memorial Hospital will complete the necessary action and implementation steps of newly formed activities or revise strategies to assist the community's underserved and disenfranchised residents. Future community partnerships and collaboration with other health institutions, organizations, involvement from government leaders, civic organizations, and stakeholders are imperative to the success of addressing the region's needs. The available resources and the ability to track progress related to the implementation strategies will be managed by the health system along with other hospital departments at Slidell Memorial Hospital to meet the region's need. Tackling the region's needs is a central focus hospital leadership will continue to measure throughout the years. Slidell Memorial Hospital will continue to work closely with community partners, as this CHNA report is the first step to an ongoing process to reducing the gaps of health disparities and ensuring all residents have access to the high-quality health care resources available in the region.



APPENDICES



Appendix A: General Description of Slidell Memorial Hospital

Slidell Memorial Hospital (SMH) is a full-service 223-bed acute care not-for-profit community hospital located in the heart of Slidell, Louisiana. Founded in 1959, SMH serves as a primary healthcare resource for families in St. Tammany Parish and Pearl River County, Mississippi. SMH provides access to the latest treatments and technology and expert physicians:

- In 2013, SMH expanded their Emergency Room and added the SMH Heart Center to meet the needs of St. Tammany's growing population. This expansion brought 29 new emergency beds and 38 specialized cardiac rooms.
- SMH's Regional Cancer Center in East St. Tammany, is designed to diagnose, treat, and rehabilitate patients in the state-of-the-art facility. SMH is one of the only hospitals on the North Shore with the Varian High Dose Brachytherapy radiation system, 4D CT Treatment Planning simulator, and a Multidisciplinary Clinic.
- SMH's orthopedic specialists are among only a handful in the region to offer anterior hip replacement surgery using a state-of-the-art hana Hip and Knee Arthroplasty Table, one of just 100 in use across the country.
- SMH's Outpatient Rehabilitation therapists are certified in LSVT-BIG treatment, a new technique that treats patients with Parkinson's disease or other neurological disorders.
- In 2016, Slidell Memorial Hospital and Ochsner Health System celebrated the formation of a long-term, strategic partnership focused on the continuation of high-quality care, cost reduction through coordinating and improving resources, and increased local access to care for the residents of the Slidell community.

The partnership has added new services and medical specialists to the community that previously did not exist, such as:

- Cancer clinical trials.
- Expanded cardiology services with the addition of a third Cardiac Catheterization Lab at SMH; Impella® technology, the world's smallest heart pump to support patients' hearts during highrisk heart procedures; and expanded heart surgery on-call to 24/7 coverage.
- Robot-assisted surgery.
- 24 recruited physicians to provide primary care and specialized services locally.
- Specialty clinics, including the Comprehensive Weight Loss Center and the upcoming Back and Spine Center.

The Ochsner Health System and Slidell Memorial Hospital partnership provided residents of the North Shore community comprehensive, integrated, and innovative care. The long-term strategic partnership provides more affordable care for patients while improving quality and increasing local access to care.

Patients are being treated closer to home, while still having access to the nationally recognized specialists and the depth and breadth of care from Ochsner. The collaboration has led to decreases in patient complications and better outcomes. Services from Ochsner Medical Center – North Shore have been moved to Slidell Memorial to provide a higher level of service, and more patients with specialized care needs are being transferred from Slidell to Ochsner Medical Center.

By sharing best practices, integrating our technology, building a cross-organizational clinical teamwork model, and making joint investment in new physicians and programs, SMH and Ochsner Medical Center – North Shore are able to continue to expand patient services and resources in the region with a focus on quality and value.

For a complete list of services, visit www.slidellmemorial.org

Appendix B: Slidell Memorial Hospital Community Definition

A community can be defined in many different ways and in 2018, the community served by Slidell Memorial Hospital represents a total of 22 ZIP codes which represents 80 percent of the inpatient discharges for the hospital. (See Table 8.)

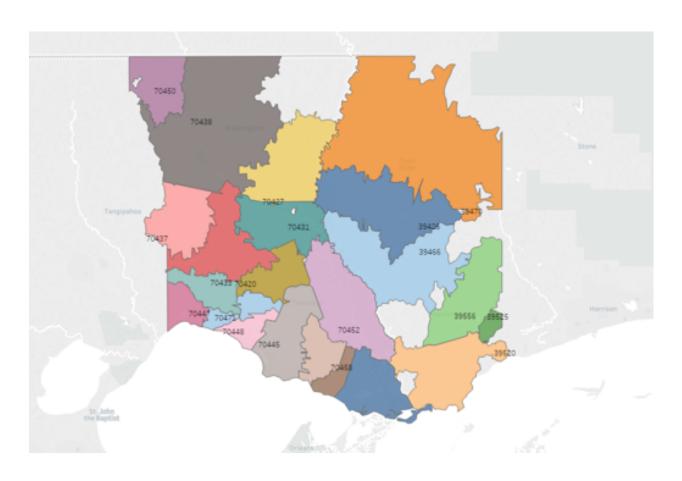
The ZIP codes that represent Slidell Memorial Hospital are also depicted in a geographic representation on Map 4.

Table 8: Slidell Memorial Hospital - ZIP codes

	Zip	Town	Parish/County
1.	39426	Carriere	Pearl River, MS
2.	39466	Picayune	Pearl River, MS
3.	39470	Poplarville	Pearl River, MS
4.	39520	Bay Saint Louis	Hancock, MS
5.	39525	Diamondhead	Hancock, MS
6.	39556	Kiln	Hancock, MS
7.	70420	Abita Springs	St. Tammany
8.	70427	Bogalusa	Washington
9.	70431	Bush	St. Tammany
10.	70433	Covington	St. Tammany
11.	70435	Covington	St. Tammany
12.	70437	Folsom	St. Tammany
13.	70438	Franklinton	Washington
14.	70445	Lacombe	St. Tammany
15.	70447	Madisonville	St. Tammany
16.	70448	Mandeville	St. Tammany
17.	70450	Mount Hermon	Washington
18.	70452	Pearl River	St. Tammany
19.	70458	Slidell	St. Tammany
20.	70460	Slidell	St. Tammany
21.	70461	Slidell	St. Tammany
22.	70471	Mandeville	St. Tammany

The map below is a geographic visual of the service area.

Map 4: Slidell Memorial Hospital – Study Area Map



Note: Map is not to scale.

Source: Truven Health Analytics

Slidell Memorial Hospital Population and Demographics Snapshot

- Two parishes and two counties are projected to have a population growth from 2017 to 2022 in the Slidell Memorial Hospital study area.
- St. Tammany Parish contains 254,916 residents and is the largest parish in the study area; Pearl River County in Mississippi is the second-largest with 56,964. St. Tammany Parish is expected to have the largest population change at 5.71 percent or an increase of 14,558 residents.
- St. Tammany Parish reports the lowest rate of residents with 'Less than a high school' degree (3.55 percent) for the study area. Washington Parish has the highest number of residents with a high school degree (40.29 percent).
- St. Tammany Parish reports the highest rate of residents with a bachelor's degree or higher (30.72 percent) for the study area; higher than the state (22.42 percent) and the nation (29.59 percent).
- Washington Parish reports the largest black, non-Hispanic population percentage for the study area (29.33 percent); while St. Tammany Parish reports the next highest percent of black, non-Hispanics (11.80 percent).
- Pearl River County, Mississippi reports the highest white, non-Hispanic population across the study area at 81.30 percent; higher than the state (58.53 percent) and nation (60.77 percent).
- Washington Parish reports the lowest average household income of the entire study area at \$51,756; this is also lower than state (\$68,011) and national (\$80,853) averages. St. Tammany Parish reports the highest average household income at \$88,573. Three of the four parishes/counties are below the state and nation averages.

Appendix C: Primary and Secondary Data Overview

Process Overview

Slidell Memorial Hospital completed a wide-scale comprehensive community-focused CHNA to better serve their residents in the region. Slidell Memorial Hospital with other health care systems and hospitals within the Metropolitan Hospital Council of New Orleans participated in the assessment process.

Civic and social organizations, government officials, educational institutions, and community-based organizations participated in the assessment to assist Slidell Memorial Hospital evaluate the needs of the community. The 2018 assessment included primary and secondary data collection that incorporated public comments, community stakeholder interviews, a health provider survey, and a community forum.

Tripp Umbach collected primary and secondary data through the identification of key community health needs in the region. Slidell Memorial Hospital will develop an Implementation Strategy Plan that will highlight and identify ways the hospital will meet the needs of the community it serves.

Slidell Memorial Hospital and Tripp Umbach worked diligently to collect, analyze, review, and discuss the results of the CHNA, concluding in the identification and prioritization of the community's needs for Slidell Memorial Hospital.

The overall process and the project components in the CHNA are depicted in the flow chart below.

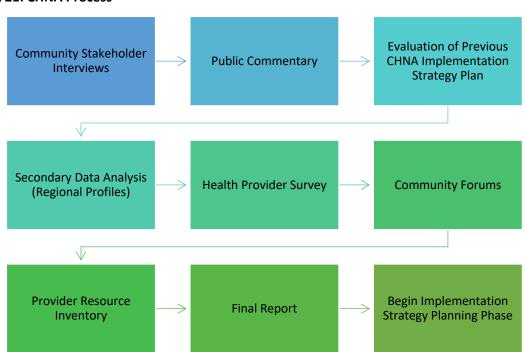


Chart 21: CHNA Process

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 community health 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 2018 and continued through April 2018. 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) representatives of underserved populations; 4) government leaders; and 5) religious leaders.

In total, 91 interviews were conducted with community leaders and stakeholders within the MHCNO project; seven key stakeholders were identified and represented Slidell Memorial Hospital.

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. Substance Abuse and Access to Treatment
- 2. Obesity and Diabetes
- 3. Mental Health and Access to Care
- 4. Aging Population and Socioeconomic Conditions

Public Commentary Collection

As part of the CHNA Tripp Umbach solicited comments related to the 2015 CHNA and Implementation Strategy Plan (ISP) on behalf of Slidell Memorial Hospital. 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 2015 CHNA and implementation planning process. Stakeholders were posed questions developed by Tripp Umbach and reviewed by the Working Group. Feedback was collected from five community stakeholders related to the public commentary survey. The public comments below are a summary of stakeholder's feedback regarding the former documents.

The collection period for the survey began late February 2018 and continued through April 2018.

When asked if the assessment "included input from community members or organizations," all seven survey respondents reported that it did in the 2015 CHNA.

One survey respondent reported that the assessment reviewed did exclude community members or organizations that should have been involved in the assessment; the remaining six respondents did not. Respondents identified as being excluded: St. Tammany schools, youth services of Covington, Northshore Tech Community College, Florida Parishes Human Services Authority, Head Start, businesses and industries.

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," two of the seven respondents agreed the needs identified in the 2015 CHNA represented the needs of the community; the remaining four respondents did not. The needs that were not identified, according to the two respondents, were: the financial burden of health care (related to Medicaid), care coordination, smoking, mental health and obesity.

Evaluation of Previous Planning Efforts

Slidell Memorial Hospital submitted an evaluation matrix to highlight and measure specific strategies that were developed. The Implementation Strategy Plan is a roadmap for how hospitals and communities are addressing the community health needs identified in the CHNA.

The purpose of the implementation strategy evaluation is for hospitals and community leaders to review and assess progress on the strategies and goals identified in the Implementation Strategy Plan to address community health needs.

A. Access to affordable healthcare

Outcomes/Results

- SMH increased access to health services by increasing the locations where services are
 provided in Pearl River, LA. SMH established and grew a community clinic, which offered
 care to residents in Pearl River, LA and surrounding communities. Family practice and
 specialty care were offered based on an independent CNA completed every 3 to 5 years.
- SMH continued to work with Ochsner Health System to increase access to health services through a formal partnership.
- SMH continued to recruit physicians increasing the number of family practice providers in the service area.
- SMH continued to make referrals for health services as necessary and appropriate to patients that received care and required follow-up services.
- SMH continued to provide referral services for community mental health and substance abuse resources, including St. Tammany Parish 2-1-1 Talk Line. Uninsured patients were referred to the St. Tammany Community Health Center for mental health, pediatric, and primary care services.

B. Resource Awareness and Health Literacy

Outcomes/Results

- SMH offered biometric screenings in the community throughout the year.
- SMH planned to provide follow-up care to residents receiving biometric screenings that included results, an opportunity for clarification and education, questions and answers, and referrals for care when needed
- SMH offered education and programming to patients with health concerns which may respond to diet and exercise adjustments. The purpose of such programming raised awareness about the impact that diet and exercise has on health status, while offering tools to make the necessary changes (e.g., nutritionist, physical training, etc.). Participants were referred by primary care physician and/or personal trainers.
- SMH continued to offer a one-week fitness and nutrition summer camp for children ages 8-12 years old.
- SMH offered opportunities for residents to attend public events where information was offered in a variety of ways (e.g., verbal, written material, etc.).
- When possible and appropriate, SMH offered residents the opportunity to engage health professionals about a variety of topics. Examples included: lunch and learn activities, health presentations, health fairs, and other public events.
- SMH continued to offer high-quality educational information via the internet (i.e., social media, the hospital website, etc.). Information offered using the internet included event notifications, health education, and clinical information.
- SMH offered health services using the telephone translations services currently available as required by patients.

Secondary Data Collection

Tripp Umbach collected and analyzed secondary data from multiple sources, including Community Need Index (CNI), Community Commons Data, County Health Rankings and Roadmaps, Greater New Orleans Community Data Center's Report, and the Louisiana Department of Health. The regional data profile includes information from multiple health, social, and demographics sources. ZIP code analysis was also completed to illustrate community health needs at the local level. Tripp Umbach used secondary data sources to compile information related to disease prevalence, socioeconomic factors, and behavioral habits. Data were benchmarked against state and national trends, where applicable.

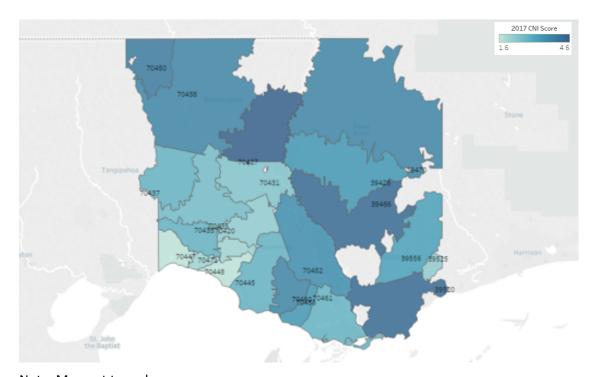
The information provided in the secondary data profile does not replace existing local, regional, and national sites but provides a comprehensive (but not all-inclusive) overview that complements and highlights existing and changing health and social behaviors of community residents for the health system, social, and community health organizations involved in the CHNA. A robust secondary data report was compiled for Slidell Memorial Hospital; select information collected from the report has been presented throughout the CHNA. Data specifically related to the identified needs were used to support the key health needs.

Tripp Umbach obtained data through Truven Health Analytics to quantify the severity of health disparities for ZIP codes in Slidell Memorial Hospital's service area. Truven Health Analytics provides data and analytics to hospitals, health systems, and health-supported agencies.

The Community Need Index (CNI) data source was also used in the health assessment. CNI considers multiple factors that are known to limit health care 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. Additional information related to CNI can be found in Appendix G.

Slidell Memorial Hospital's community is defined as 22 ZIP codes that hold a large majority (80 percent) of the inpatient discharges. These ZIP codes represent the community served by Slidell Memorial Hospital as portions of the hospital's service areas falls into: St. Tammany, and Washington Parishes in Louisiana and Pearl River and Hancock counties, Mississippi. Slidell Memorial Hospital provides services to communities throughout the region and in neighboring Mississippi. The following map geographically depicts the CNI measures in the service area.

Table 9 reported the specific breakout and measures from each ZIP code within the study area.



Map 5: Slidell Memorial Hospital - Regional Study Area (CNI Score Breakouts)

Note: Map not to scale.

Source: Truven Health Analytics

2017 CNI Score

↑ 5.00 to 4.00 (High-socioeconomic barriers)

3.99 to 3.00

↓ 1.99 to 1.00 (Low-socioeconomic barriers)

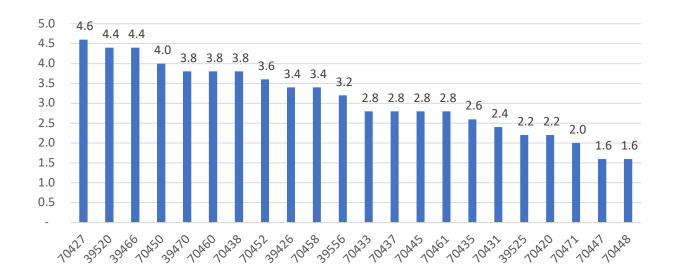
Table 9 reported the specific CNI score from each ZIP code within the study area.

Table 9: Slidell Memorial Hospital - Study Area (CNI Score Breakouts)

ZIP	City	Parish/County	Income	Culture	Education	Insurance	Housing	2017 CNI
								Score
70427	Bogalusa	Washington	5	4	5	5	4	4.6
39520	Bay Saint Louis	Hancock, MS	4	4	4	5	5	4.4
39466	Picayune	Pearl River, MS	5	4	4	5	4	4.4
70450	Mount Hermon	Washington	5	4	5	5	1	4.0
39470	Poplarville	Pearl River, MS	5	3	4	5	2	3.8
70460	Slidell	St. Tammany	4	5	4	3	3	3.8
70438	Franklinton	Washington	3	4	5	4	3	3.8
70452	Pearl River	St. Tammany	4	3	5	3	3	3.6
39426	Carriere	Pearl River, MS	5	3	4	4	1	3.4
70458	Slidell	St. Tammany	4	4	3	2	4	3.4
39556	Kiln	Hancock MS	4	2	4	5	1	3.2
70433	Covington	St. Tammany	3	3	3	2	3	2.8
70437	Folsom	St. Tammany	4	3	4	2	1	2.8
70445	Lacombe	St. Tammany	3	4	4	2	1	2.8
70461	Slidell	St. Tammany	2	4	3	2	3	2.8
70435	Covington	St. Tammany	4	3	3	2	1	2.6
70431	Bush	St. Tammany	4	2	3	2	1	2.4
39525	Diamondhead	Hancock, MS	4	3	1	2	1	2.2
70420	Abita Springs	St. Tammany	2	3	3	2	1	2.2
70471	Mandeville	St. Tammany	1	3	1	1	4	2.0
70447	Madisonville	St. Tammany	2	3	1	1	1	1.6
70448	Mandeville	St. Tammany	1	3	1	1	2	1.6

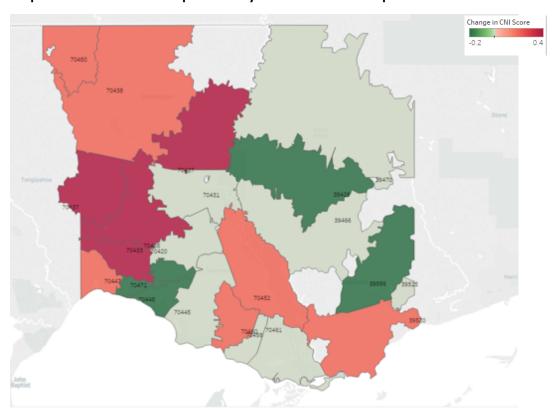
In total, 22 ZIP codes were analyzed for the Slidell Memorial Hospital Study Area. ZIP code 70427 Bogalusa reported a CNI score of 4.6 (high socioeconomic barriers to care) in 2017; while ZIP codes 70447 and 70448 reported a CNI score of 1.6 (low socioeconomic barriers to care). (See Chart 22.)

Chart 22: Slidell Memorial Hospital - Overall Study Area 2017 (Overview)



Source: Truven Health Analytics

In reviewing scores from 2017 and 2016, the map provides a geographic trending visual of the service area between the years. The green color represents ZIP codes that have improved their overall CNI score. As the color changes to darker red, certain ZIP codes face higher socioeconomic barriers (Map 6.)



Map 6: Slidell Memorial Hospital - Study Area CNI - Trend Map

Note: Map is not to scale.

Source: Truven Health Analytics

2017 CNI Score

5.00 to 4.00 (High-socioeconomic barriers)

3.99 to 3.00

1.99 to 1.00 (Low-socioeconomic barriers)

Table 10 shows specific trending information related to the 22 ZIP codes in the Slidell Memorial Hospital Study Area. Across the Slidell Memorial Hospital Study Area:

- 10 ZIP codes experienced a rise in their CNI score from 2016 to 2017, indicating a shift to more barriers to health care access (red values).
- Eight ZIP codes remained the same from 2016 to 2017.
- Four ZIP codes experienced a decline in their CNI score from 2016 to 2017, indicating a shift to fewer barriers to health care access (green values).
- ZIP codes 70433, 70435, 70437, 70427, 70002 in St. Tammany and Washington parishes experienced the largest rise in CNI score.

Table 10: Slidell Memorial Hospital - ZIP Code CNI List - 2016 to 2017 Comparison/Trend

Zip	City	Parish/County	2016 CNI	2017 CNI	Difference
			Score	Score	
70433	Covington	St. Tammany	2.4	2.8	(0.40)
70435	Covington	St. Tammany	2.2	2.6	(0.40)
70437	Folsom	St. Tammany	2.4	2.8	(0.40)
70427	Bogalusa	Washington	4.2	4.6	(0.40)
39520	Bay Saint Louis	Hancock	4.2	4.4	(0.20)
70447	Madisonville	St. Tammany	1.4	1.6	(0.20)
70452	Pearl River	St. Tammany	3.4	3.6	(0.20)
70450	Mount Hermon	Washington	3.8	4.0	(0.20)
70460	Slidell	St. Tammany	3.6	3.8	(0.20)
70438	Franklinton	Washington	3.6	3.8	(0.20)
39525	Diamondhead	Hancock	2.2	2.2	-
39466	Picayune	Pearl River	4.4	4.4	-
39470	Poplarville	Pearl River	3.8	3.8	-
70420	Abita Springs	St. Tammany	2.2	2.2	-
70431	Bush	St. Tammany	2.4	2.4	-
70445	Lacombe	St. Tammany	2.8	2.8	-
70458	Slidell	St. Tammany	3.4	3.4	-
70461	Slidell	St. Tammany	2.8	2.8	-
39556	Kiln	Hancock	3.4	3.2	0.20
70448	Mandeville	St. Tammany	1.8	1.6	0.20
39426	Carriere	Pearl River	3.6	3.4	0.20
70471	Mandeville	St. Tammany	2.2	2.0	0.20

Health Provider Survey

Tripp Umbach employed a health provider survey methodology to survey providers within the region. A provider health survey was created to collect thoughts and opinions regarding health providers' community regarding the care and services they provide. Each hospital organization within the MHCNO collaboration sent emails to their health providers requesting survey participation. A survey link was also posted in an internal company newsletter to increase response rates. The survey data collection period ran on Survey Monkey from March thru May 2018. In total, a sample size of 176 surveys were collected.

Key Points:

- Jefferson (13.5 percent), Orleans (13.4 percent), St. Tammany (11.5 percent), St. Charles (6.2 percent), and St. Bernard (5.6 percent) parishes were the top five parishes where survey respondents reported they serve.
- A majority of survey respondents identified themselves as being a physician specialist (30.6 percent), 26.6 percent were primary care physicians, and 19.1 percent reported being a nurse.
- Hospital facility (39.3 percent) or doctor's office (26.6 percent) were the top two types of facilities where survey respondents provided care.
- The top three specific population's survey respondents that have focused care are: all populations (14.9 percent), Seniors/Elderly (9.5 percent), and low income/poor (8.4 percent).
- Overall, close to one-half of survey respondents reported that the community in which they provide care or services as being unhealthy (37.8 percent)/very unhealthy (11.0 percent).
- More than half of survey respondents strongly agreed (30.3 percent) and agreed (37.7 percent) that residents have access to high-quality primary care providers.
- More than half of survey respondents strongly agreed (26.3 percent) and agreed (37.7 percent) that residents have access to specialists.
- More than half of survey respondents disagreed (37.7 percent) and strongly disagreed (29.1 percent) that residents have access to mental/behavioral health providers.
- Close to one-third of survey respondents disagree (21.4 percent) and strongly disagree (9.2 percent) that residents have access to dental care.
- More than half of survey respondents strongly agree (17.1 percent) and agree (36.6 percent) that residents have access to vision care.
- More than one-third of respondents disagreed (26.4 percent) and strongly disagreed (14.4 percent) that residents have available transportation options for medical appointments and other services.
- There was strong agreement (22.9 percent) and agreement (38.3 percent) that residents have access to health facilities where interpreter services/bilingual providers are available (61.3 percent).

- More than half of survey respondents strongly agree (12.0 percent) and agree (39.4 percent) that there are ample employment opportunities in the community where they practice.
- More than half of survey respondents strongly agreed (17.1 percent) and agreed (35.4 percent) the community where they practice is a safe place to live.
- 50.9 percent of survey respondents reported that there are safe, clean, and affordable housing options in the community.
- Close to one quarter of respondents (24.9 percent) disagreed that quality public education is available in the community.
- The top five health concerns affecting residents in the community according to health providers are: chronic diseases (19.9 percent), access to health care (17.7 percent), obesity/poor diet/lack of exercise (14.1 percent), mental health (12.2 percent) and substance abuse (6.4 percent).
- The top five health reported factors that contribute to the health concerns are: Health literacy/overall education (16.2 percent), obesity/poor diet/lack of exercise (11.0 percent), access to health care (14.1 percent), unemployment/poverty (10.8 percent), and mental health/lack of mental health services (5.6 percent).
- Mental health services (14.4 percent) and substance abuse services (11.2 percent) were the top
 two resources/services that are missing from that community that would improve the health of
 residents.
- Conversely, vision care (1.7 percent) and emergency care (0.7 percent) were not seen as important resources/services that are missing from that community that would improve the health of residents.
- More than half of respondents (55.7 percent) who responded to the survey were female, while 41.4 percent were male.
- Close to one-third of respondents (29.1 percent) of survey respondents are 55 and older.
- More than one-third of survey respondents plan to retire in 15 or more years (44.0 percent).
- A majority of survey respondents are white/Caucasian (83.1 percent).
- More than half of survey respondents have a medical degree (55.7 percent) followed by a College or master's degree (16.7 percent).

Community Forum

On July 11, 2018, Tripp Umbach facilitated a public input session (community forum) with leaders from community, government, civic, and social organizations, and other key community leaders at Northshore Harbor Center. The purpose of the community forum was to present the CHNA findings, which included existing data, in-depth community stakeholder interviews results, and results from the health provider survey, and to obtain input regarding the needs and concerns of the community overall. Community leaders discussed the data, shared their visions and plans for community health

improvement in their communities, identified and prioritized the top community health needs in their region. With input received from forum participants, community stakeholders prioritized and identified top priority areas. They included: behavioral health (mental health & substance abuse), health education, and chronic disease. Each of the prioritized areas has subcategories, which further illustrate the identified need.

- A. Behavioral Health (Mental Health & Substance Abuse)
 - Accessibility to providers/facilities
 - Alcohol Use
 - Opioid Use
- B. Health Education
 - Sexual Health
 - Preventative Education
- C. Chronic Disease
 - Obesity

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 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 provider inventory was provided as a separate document due to its interactive nature, and is available on Slidell Memorial Hospital's website.

Final 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, a health provider survey, and a community forum. Tripp Umbach provided support to the prioritized needs with secondary data (where available), and consensus with community stakeholders results, and surveys results.

Implementation 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 Slidell Memorial Hospital will be guided through a series of identified processes. The planning process will result in the development of an implementation plan that will meet system and IRS standards.

Appendix D: Community Stakeholder Interviewees

Tripp Umbach completed seven interviews with community stakeholders representing Slidell Memorial Hospital to gain a deeper understanding of community health needs from organizations, agencies, and government officials that have 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 interviewed for the community needs assessment.

Table 11: Community Stakeholders for Slidell Memorial Hospital (Listed alphabetically by last name)

Name	Organizations
Jennifer K. Baillargeon	Council on Aging of St. Tammany
Jamie Dakin	East St. Tammany Chamber of Commerce
Mayor Freddy Drennan	City of Slidell
Dionne C. Graham	Rainbow Child Care Center, Inc.
Deacon David LaCroix	Salvation Christian Fellowship
Allyson Villars	St. Tammany Department of Health & Human Services
Claudia Warner	Council on Aging of St. Tammany

Appendix E: Community Organizations and Partners

Metropolitan Hospital Council of New Orleans along with its hospital partners, East Jefferson General Hospital, HCA Healthcare (Tulane Medical Center), LCMC Health, Ochsner Health System, Slidell Memorial Hospital, and St. Tammany Parish Hospital came together to gain a better understanding of the health needs of the community they serve.

Slidell Memorial Hospital is a leading health care provider dedicated to understanding community needs, offering high-quality programs to address the region's needs, and promoting population wellness. The primary data collected in the CHNA provided valuable input and ongoing dedication to assisting Slidell Memorial Hospital and its health care partners in identifying community health priorities; building on a foundation to develop strategies that will address the needs of residents in the region.

The table below lists community organizations that assisted Slidell Memorial Hospital and its hospital partners with the primary data collection through community stakeholder interviews, completing a health provider survey, and or attending a regional forum.

Table 12: Community Organizations and Partners

	Organization Name
1.	504HealthNet
2.	Acadian Ambulance Service
3.	Access Health Louisiana
4.	Agenda for Children
5.	American Cancer Society
6.	American Heart Association/American Stroke Association
7.	Andrea's Restaurant
8.	Backyard Gardeners Network
9.	Baton Rouge Health District
10.	Belle Chasse YMCA
11.	Boys & Girls Clubs West Bank
12.	Broad Community Connections
13.	Bryan Bell Metropolitan Leadership Forum
14.	Bureau of Chronic Disease Prevention and Health Promotion
15.	Bureau of Family Health
16.	Café Hope
17.	Caffin Avenue SDA Church
18.	Capital Area Human Services
19.	CCOSJ
20.	Central Chamber of Commerce

	Organization Name
21.	Central Lafayette High School
22.	Children's Bureau New Orleans
23.	City of Baton Rouge
24.	City of Covington
25.	City of Kenner
26.	City of Mandeville
27.	City of New Orleans Emergency Medical Services
28.	City of Slidell
29.	Civic Coalition West Bank
30.	Council on Aging of St. Tammany
31.	Covenant House New Orleans
32.	Covington Food Bank
33.	Crescent Dental
34.	Daughters of Charity
35.	East Jefferson General Hospital
36.	East St. Tammany Chamber of Commerce
37.	EXCELth Family Health Center
38.	Fifth District Savings Bank
39.	Friends of Lafitte Greenway
40.	Gheens Needy Family
41.	Gin Wealth Management Partners
42.	Good Samaritan Food Bank
43.	Gulf Coast Bank & Trust Company
44.	Health Guardians of Catholic Charities Archdiocese of New Orleans
45.	Hospital Service District
46.	HUB International Gulf South
47.	Humana
48.	Humana Bold Goal
49.	JEFFCAP
50.	Jefferson Chamber of Commerce
51.	Jefferson Parish Council on Aging
52.	Jefferson Parish Public School System
53.	Jewish Family Services
54.	John J. Hainkel, Jr. Home & Rehabilitation Center

	Organization Name
55.	Junior League of New Orleans
56.	Kenner Discovery Health Sciences Academy
57.	Kingsley House
58.	Lafourche Behavioral Health Center
59.	Lafourche Fire Department District #1
60.	Lafourche Hospital Service District #2
61.	Lafourche Parish Government
62.	Lafourche Parish School Board
63.	Lafourche Parish Sheriff's Office
64.	Lakeview Regional Medical Center
65.	LCMC Health
66.	LCMC Health – Children's Hospital
67.	LCMC Health – New Orleans East Hospital
68.	LCMC Health – Touro Infirmary
69.	LCMC Health – University Medical Center
70.	LCMC Health – West Jefferson Medical Center
71.	Limb Up
72.	Lockport City Council
73.	Louisiana Children's Research Center for Development and Learning
74.	Louisiana Department of Health
75.	Louisiana Organ Procurement Agency
76.	Louisiana Policy Institute for Children
77.	Louisiana Public Health Institute
78.	Louisiana Public Health Institute
79.	Louisiana State University Agricultural Center
80.	Louisiana State University Health Sciences Center
81.	Louisiana State University/University Medical Center
82.	Market Umbrella
83.	Martin Luther King, Jr. Task Force & West Bank African American Churches
84.	Methodist Health System Foundation, Inc.
85.	Metropolitan Human Services District
86.	New Orleans Chamber of Commerce
87.	New Orleans Council on Aging
88.	New Orleans Emergency Medicine

	Organization Name
89.	New Orleans Health Department
90.	New Orleans Mission/Giving Hope Retreat
91.	New Pathways New Orleans
92.	Newman, Mathis, Brady & Spedale
93.	NOLA Business Alliance
94.	Northshore Community Foundation
95.	Northshore Healthcare Alliance
96.	Nurse Family Partnership
97.	Ochsner Baptist Medical Center
98.	Ochsner Health System
99.	Ochsner Health System Board of Trustees
100.	Ochsner Medical Center – Baton Rouge
101.	Ochsner Medical Center – Kenner
102.	Ochsner Medical Center – Kenner Hospital Board
103.	Ochsner Medical Center – North Shore
104.	Ochsner Medical Center – West Bank
105.	Ochsner Rehabilitation Hospital in partnership with Select Medical
106.	Ochsner St. Anne Hospital
107.	One Haven Inc.
108.	People's Health
109.	Rainbow Child Care Center, Inc.
110.	Ready Responders
111.	Regina Coeli Child Development Center
112.	River Parish Behavioral Center
113.	River Place Behavioral Health a service of Ochsner Health System
114.	SAIRP
115.	Salvation Christian Fellowship
116.	Second Baptist Church
117.	Second Harvest Food Bank
118.	Slidell Memorial Hospital
119.	South Central Planning & Development Commission (SCPDC)
120.	St. John Council
121.	St. John Volunteer Citizen
122.	St. Tammany Coroner's Office

	Organization Name
123.	St. Tammany Department of Health & Human Services
124.	St. Tammany Parish Clerk of Court; 22nd Judicial District Court
125.	St. Tammany Parish Government Health & Human Services
126.	St. Tammany Parish Hospital
127.	St. Thomas Health Center
128.	Susan G. Komen
129.	The Blood Center
130.	The Haven
131.	The Louisiana Campaign for Tobacco-Free Living
132.	The Metropolitan Hospital Council of New Orleans
133.	The National Alliance on Mental Illness
134.	TPRC
135.	Tulane Lakeside Hospital for Women and Children
136.	Tulane Medical Center
137.	U.S. House of Representatives
138.	UMCNO Forensics
139.	United Healthcare
140.	United Way
141.	United Way for Greater New Orleans
142.	United Way of Southeast Louisiana
143.	UNITY of Greater New Orleans
144.	Vacherie-Gheens Community Center
145.	VIET
146.	Volunteers of America
147.	Well-Ahead Louisiana Region 9
148.	West Jefferson Medical Center
149.	West Jefferson Medical Center Foundation Director
150.	West Jefferson Medical Center; Auxiliary

Appendix F: Working Group Members

The CHNA was overseen by a committee of representatives from the sponsoring organizations. Members of the Working Group and the organizations they represent are listed in alphabetical order by last name.

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

Name	Organization
Jennifer Berger, MBA	Manager, Marketing & Communications
	Business Development
	Slidell Memorial Hospital
Avery Corenswet, MHA, BSN, RN	Vice President of Community Outreach
	Ochsner Health System
Melissa Hodgson, ABC, APR	Director of Communication
	St. Tammany Parish Hospital
Jennifer E. McMahon	Executive Director
	The Metropolitan Hospital Council of New Orleans
Charlotte Parent, RN, MHCM	Assistant Vice President Community Affairs
	Network Navigation
	LCMC Health
Tom Patrias, FACHE	Chief Operating Officer
	Tulane Health System
Megan Perry	Marketing & Communications Coordinator
	Business Development
	Slidell Memorial Hospital
John Sartori	Director of Marketing Communications
	East Jefferson General Hospital
Ha T. Pham	Principal
Па I. FIIdIII	Tripp Umbach
Parhara Torni	Senior Advisor
Barbara Terry	Tripp Umbach

Appendix G: 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 (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 Analytics 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. 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 part of a larger community need assessment and can help pinpoint specific areas that have greater need than others. 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 age 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 five, which 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 (20.0 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

- Demographic Data, The Nielsen Company
- Poverty Data, The Nielsen Company
- 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 H: Tripp Umbach

Consultants

The Metropolitan Hospital Council of New Orleans (MHCNO) along with its partners, East Jefferson General Hospital, LCMC Health, Ochsner Health System, HCA Healthcare (Tulane Medical Center), Slidell Memorial Hospital, and St. Tammany Parish Hospital, contracted with Tripp Umbach, a private health care consulting firm with offices throughout the United States, to complete a community health needs assessment (CHNA) and implementation strategy planning phase. 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 over 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 between providers, public health agencies, and community organizations to improve the overall health of communities.

