Slidell Memorial Hospital

Community Health Needs Assessment

October 2015

TrippUmbach
Research • Strategy • Impact

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Introduction

Slidell Memorial Hospital, a 229-bed acute care hospital located in Slidell, LA., in response to its community commitment, contracted with Tripp Umbach to facilitate a comprehensive Community Health Needs Assessment (CHNA). A CHNA was conducted between March 2015 and October 2015 identifying the needs of residents served by Slidell Memorial Hospital. As a partnering hospital of a regional collaborative effort to assess community health needs, Slidell Memorial Hospital collaborated with 14 hospitals and other community-based organizations in the region during the CHNA process. The following is a list of organizations that participated in the CHNA process in some way:

- Acadian Ambulance
- City of Slidell
- COAST - Slidell Senior Center
- First Baptist Church
- Louisiana Office of Public Health
- Methodist Health Foundation
- NAMI
- S.A.L.T
- STPH Community Wellness Center
- SMH Foundation Board
- St. Tammany EDF
- St. Tammany Outreach for the Prevention of Suicide (STOPS)
- St. Tammany Parish Hospital
- The Good Samaritan Ministry
- Youth Service Bureau - Slidell Client Services & CASA
- NAMI
- The Metropolitan Hospital Council of New Orleans (MHCNO)
- Ochsner Medical Center
- Ochsner Medical Center - Northshore
- Ochsner Baptist Medical Center
- Ochsner Medical Center Kenner
- Ochsner St. Anne General Hospital
- Ochsner Medical Center Westbank
- St. Charles Parish Hospital
- Children's Hospital of New Orleans
- Touro Infirmary
- University Medical Center
- East Jefferson General Hospital
- West Jefferson Medical Center

This report fulfills the requirements of the Internal Revenue Code 501(r)(3); a statute established within the Patient Protection and Affordable Care Act (ACA) requiring that non-profit hospitals conduct CHNAs every three years. The CHNA process undertaken by Slidell Memorial Hospital, with project management and consultation by Tripp Umbach, incorporated extensive input from persons who represent the broad interests of the community served by the hospital facility, including those with special knowledge of public health issues, data related to vulnerable populations, and representatives of vulnerable populations served by the hospital. Tripp Umbach worked closely with leadership from Slidell Memorial Hospital and a project oversight committee to accomplish the assessment.

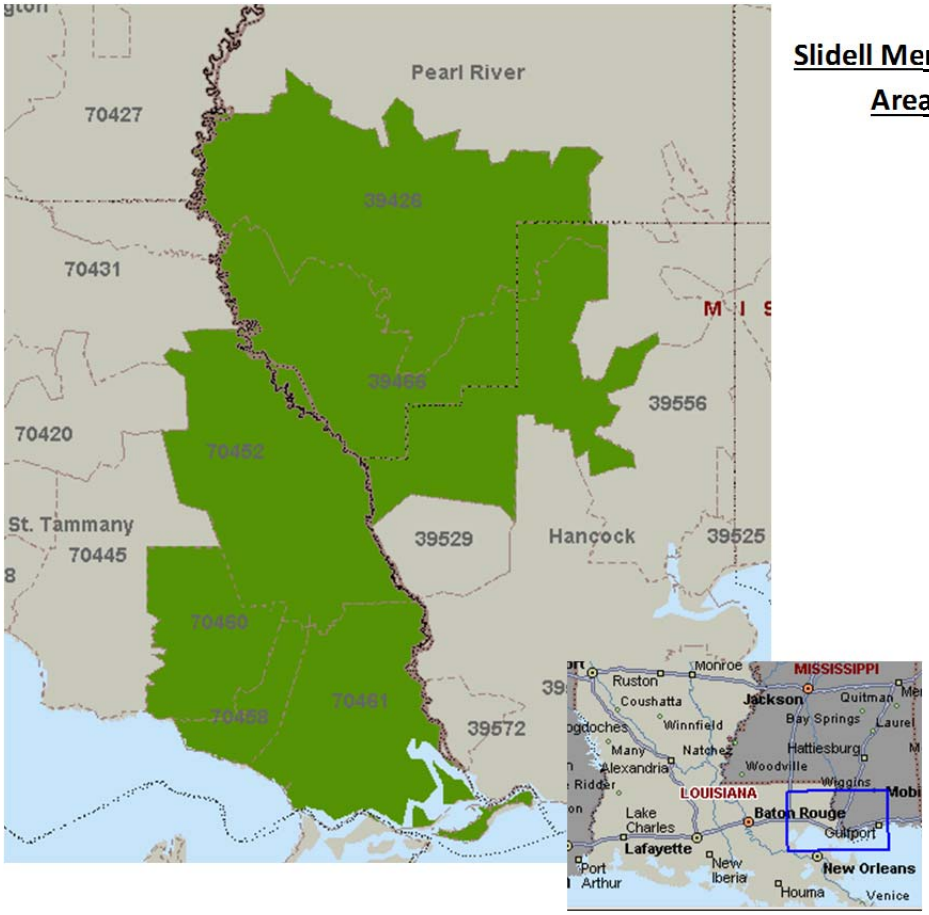
Community Definition

While community can be defined in many ways, for the purposes of this report, the Slidell Memorial Hospital (SMH) community is defined as 6 zip codes – including 2 parishes that hold a large majority (80%) of the inpatient discharges for the hospital (See Table 1 and Figure 1).

Table 1. Slidell Memorial Hospital Study Area Definition – Zip Codes

Slidell Memorial Hospital Study Area Definition – Zip Codes					
City	**Zip Code**	**Parish**	**City**	**Zip Code**	**Parish**
Louisiana			**Mississippi**		
Pearl River	70452	St. Tammany Parish	**Carriere**	39426	Pearl River County
Slidell	70458	St. Tammany Parish	**Picayune**	39466	Pearl River County
Slidell	70460	St. Tammany Parish			
Slidell	70461	St. Tammany Parish			

Figure 1. Map of Slidell Memorial Hospital Study Area



Consultant Qualifications

Slidell Memorial Hospital contracted with Tripp Umbach, a private healthcare consulting firm headquartered in Pittsburgh, Pennsylvania to complete the CHNA. Tripp Umbach is a recognized national leader in completing CHNAs, having conducted more than 300 CHNAs over the past 25 years; more than 75 of which were completed within the last three years. Today, more than one in five Americans lives in a community where Tripp Umbach has completed a CHNA.

Paul Umbach, founder and president of Tripp Umbach, is among the most experienced community health planners in the United States, having directed projects in every state, as well as internationally. Tripp Umbach has written two national guide books1 on the topic of community health and has presented at more than 50 state and national community health conferences. The additional Tripp Umbach CHNA team brought more than 30 years of combined experience to the project.

[1] A Guide for Assessing and Improving Health Status Apple Book: http://www.haponline.org/downloads/HAP_A_Guide_for_Assessing_and_Improving_Health_Status_Apple_Book_1993.pdf and

A Guide for Implementing Community Health Improvement Programs: http://www.haponline.org/downloads/HAP_A_Guide_for_Implementing_Community_Health_Improvement_Programs_Apple_2_Book_1997.pdf

Project Mission & Objectives

The mission of the Slidell Memorial Hospital CHNA is to understand and plan for the current and future health needs of residents in its community. The goal of the process is to identify the health needs of the communities served by the hospital, while developing a deeper understanding of community needs and identifying community health priorities. Important to the success of the community needs assessment process is meaningful engagement and input from a broad cross-section of community-based organizations, who are partners in the CHNA.

The objective of this assessment is to analyze traditional health-related indicators, as well as social, demographic, economic, and environmental factors and measure these factors with previous needs assessments and state and national trends. Although the consulting team brings experience from similar communities, it is clearly understood that each community is unique. This project was developed and implemented to meet the individual project goals as defined by the project sponsors, including:

- Ensuring that community members, including underrepresented residents and those from a broad-based racial/ethnic/cultural and linguistic background are included in the needs assessment process. In addition, educators, health-related professionals, media representatives, local government, human service organizations, institutes of higher learning, religious institutions, and the private sector will be engaged at some level in the process.
- Obtaining information on the health status and socio-economic/environmental factors related to the health of residents in the community.
- Developing accurate comparisons to previous assessments and the state and national baseline of health measures utilizing most current validated data.
- Utilizing data obtained from the assessment to address the identified health needs of the service area.
- Providing recommendations for strategic decision-making, both regionally and locally, to address the identified health needs within the region to use as a benchmark for future assessments.
- Developing a CHNA document as required by the Patient Protection and Affordable Care Act (ACA).

Methodology

Tripp Umbach facilitated and managed a comprehensive CHNA on behalf of Slidell Memorial Hospital — resulting in the identification of community health needs. The assessment process gathered input from persons who represent the broad interests of the community served by the hospital facility, including those with special knowledge and expertise of public health issues. The needs assessment data collection methodology was comprehensive and there were no gaps in the information collected.

Key data sources in the CHNA included:

- **Community Health Assessment Planning:** A series of meetings was facilitated by the consultants and the CHNA oversight committee consisting of leadership from Slidell Memorial Hospital and other participating hospitals and organizations. This process lasted from March 2015 until August 2015.

- **Secondary Data:** Tripp Umbach completed comprehensive analysis of health status and socio-economic environmental factors related to the health of residents of the Slidell Memorial Hospital community from existing data sources such as state and county public health agencies, the Centers for Disease Control and Prevention, County Health Rankings, Truven Health Analytics, CNI, Healthy People 2020, and other additional data sources. This process lasted from March 2014 until August 2015.

- **Trending from 2013 CHNA:** In 2013, Slidell Memorial Hospital contracted with Tripp Umbach to complete a CHNA. The data sources used for the current CHNA were the same data sources from the 2013 CHNA, making it possible to review trends and track changes across the hospital service area. There were several data sources with changes in the definition of specific indicators, restricting the use of trending in several cases. The factors that could not be trended are clearly defined in the secondary data section of this report. Additionally, the findings from primary data (i.e., community leaders, stakeholders, and focus groups) are presented, when relevant, in the executive summary portion. The 2013 CHNA can be found online at: http://slidellmemorial.org/Images/Interior/about%20us/smh_chna_and_boc_resolution.pdf.

- **Interviews with Key Community Stakeholders:** Tripp Umbach worked closely with the CHNA oversight committee to identify leaders from organizations that included: 1) Public health expertise; 2) Professionals with access to community health related

data; and 3) Representatives of underserved populations (i.e., seniors, low-income residents, homeless, youth, residents with disabilities, residents with a behavioral health diagnosis, and residents that are uninsured). Such persons were interviewed as part of the needs assessment planning process. A total of 13 interviews were completed with key stakeholders in the Slidell Memorial Hospital community. A complete list of organizations represented in the stakeholder interviews can be found in the "Key Stakeholder Interviews" section of this report. This process lasted from April 2015 until August 2015.

- **Survey of vulnerable populations:** Tripp Umbach worked closely with the CHNA oversight committee to ensure that community members, including under-represented residents, were included in the needs assessment through a survey process. A total of 115 surveys were collected in the Slidell Memorial Hospital service area; providing a +/- 2.89 confidence interval for a 95% confidence level. Tripp Umbach worked with the oversight committee to design a 32 question health status survey. The survey was offered in English, Spanish, and Vietnamese. The survey was administered by community-based organizations providing services to vulnerable populations in the hospital service area. Community-based organizations were trained to administer the survey using hand-distribution. Surveys were administered onsite and securely mailed to Tripp Umbach for tabulation and analysis. Surveys were analyzed using SPSS software. Geographic regions were developed by the CHNA oversight committee for analysis and comparison purposes:

  - ✓ Northshore Region: St. Tammany Parish, LA and Pearl River, MS.
  - ✓ Southeast Louisiana (SELA) Region: all parishes included in the study (Ascension, East Baton Rouge, Iberville, Jefferson, Lafourche, Livingston, Orleans, Plaquemines, St. Bernard, St. Charles, St. John the Baptist, St. Tammany, Terrebonne, and Washington parishes).

  Vulnerable populations were identified by the CHNA oversight committee and through stakeholder interviews. Vulnerable populations targeted by the surveys consisted of: seniors, low-income residents (including families), homeless, youth, residents with disabilities, residents with a behavioral health diagnosis, women of child bearing age, and residents that are uninsured. This process lasted from May 2014 until July 2015.

  There are several inherent limitations to using a hand-distribution methodology that targeted medically vulnerable and at-risk populations. Often, the demographic characteristics of populations that are considered vulnerable populations are not the same as the demographic characteristics of a general population. For example, vulnerable populations, by nature, may have significantly less income than a general

population. For this reason the findings of this survey are not relevant to the general population of the hospital service area. Additionally, hand-distribution is limited by the locations where surveys are administered. In this case Tripp Umbach asked CBOs to self-select into the study and as a result there are several populations that have greater representation in raw data (i.e., low-income, women, etc.). These limitations were unavoidable when surveying low-income residents about health needs in their local communities.

- **Identification of top community health needs:** Top community health needs were identified and prioritized by community leaders during a regional community health needs identification forum held on August 3, 2015. Consultants presented to community leaders the CHNA findings from analyzing secondary data, key stakeholder interviews, and surveys. Community leaders discussed the data presented, shared their visions and plans for community health improvement in their communities, and identified and prioritized the top community health needs in the Slidell Memorial Hospital community.

- **Public comment regarding the 2013 CHNA and implementation plan:** Slidell Memorial Hospital solicited public comment from community leaders and residents. Commenters were asked to review the CHNA and Action Plan adopted by Slidell Memorial Hospital in 2013 and were provided access to each document for review. Commenters were then asked to respond to a questionnaire which provided open and closed response questions. The seven question questionnaire was offered in hard copy at two locations inside the hospital. The CHNA and Action Plan were provided to commenters for review in the same manner. There were no restrictions or qualifications required of public commenters. Slidell Memorial Hospital did not receive any feedback related to the previous CHNA or implementation plan during the collection period which lasted from May 2015 until August 2015.

- **Final CHNA Report:** A final report was developed that summarizes key findings from the assessment process, including the priorities set by community leaders.

Key Community Health Priorities

Louisiana is a state that has not expanded Medicaid, a key component of health reform that extends Medicaid eligibility to a greater population of residents. Many health needs identified in this assessment relate to the lack of Medicaid expansion and the resulting restricted access to health services. Community leaders reviewed and discussed existing data, in-depth interviews with community stakeholders representing a cross-section of agencies, and survey findings presented by Tripp Umbach in a forum setting, resulting in the identification and prioritization of three community health priorities in the Slidell Memorial Hospital community. Community leaders identified the following top community health needs, which are supported by secondary and/or primary data: 1) Access to health services; 2) Behavioral health and substance abuse; and 3) Resource awareness and health literacy. Many of the same underlying factors were identified in the 2013 CHNA, with slightly different priorities. A summary of the top three needs in the Slidell Memorial Hospital community follows:

INCREASING ACCESS TO HEALTHCARE

Underlying factors identified by secondary data and primary input from community leaders, community stakeholders, and resident survey respondents:

1. Residents need solutions that reduce the financial burden of health care.
2. Provider to population ratios that are not adequate enough to meet the need.
3. Need for care coordination.
4. Limited access to healthcare as a result of transportation issues.

Increasing access to healthcare is identified as the number one community health priority by community leaders. Access to health care is an ongoing health need in rural areas across the U.S. Apart from issues related to insurance status and the Medicaid waiver[2], access to health care in the hospital service area is limited by provider to population ratios that cause lengthy

[2] In 2015, there are multiple Medicaid Waivers operating in Louisiana. Residents are qualify for one of the Medicaid Waivers whereby receiving health services from health providers which accept the Medicaid Waiver, and are then eligible for Medicaid reimbursement.

wait times to secure appointments, location of providers, transportation issues, limited awareness of residents related to the location of health services, as well as preventive practices.

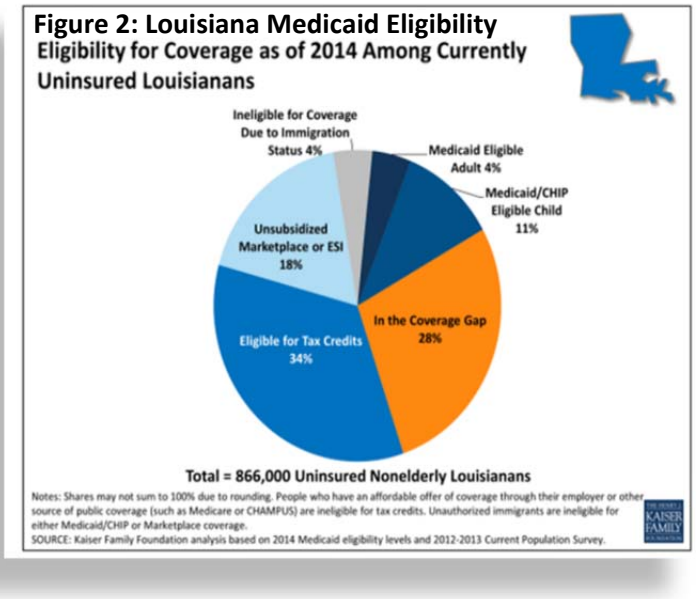
Findings supported by study data:

Residents need solutions that reduce the financial burden of health care:

Socio-economic status creates barriers to accessing health care (e.g., lack of health insurance, inability to afford care, transportation challenges, etc.), which typically have a negative impact on the health of residents. Often, there is a high correlation between poor health outcomes, consumption of healthcare resources, and the geographic areas where socio-economic indicators (i.e., income, insurance, employment, education, etc.) are the poorest. In the needs assessment completed by Slidell Memorial Hospital in 2013, community stakeholders and focus group participants identified access to health care and medical services (i.e., primary, preventive, and mental) as a need in the hospital service area.

- In findings from the 2013 CHNA, stakeholders perceived there was a lack of insurance coupled with increased poverty rates.
- During the 2015 study, the Slidell Memorial Hospital study area has an average annual household income of $71,672, there is a contrast between the socio-economic level of Pearl River, MS and St. Tammany Parish, LA. For example, a larger percentage of residents in Pearl River, MS make less than $25,000 a year when compared to the annual household incomes of residents in St. Tammany Parish, LA (33.9% and 19.9%, respectively).
- There are indications in the secondary data that the geographic pockets of poverty align with data showing fewer providers and poor health outcomes in the same areas. For example, residents in zip code areas with higher CNI scores (greater socio-economic barriers to accessing healthcare) tend to experience lower educational attainment, lower household incomes, higher unemployment rates, as well as consistently showing less access to health care due to lack of insurance, lower provider ratios, and consequently poorer health outcomes when compared to other zip code areas with lower CNI scores (fewer socio-economic barriers to accessing healthcare).
- There are also pockets of poverty in St. Tammany Parish, LA that may go unnoticed due to the affluence found in most of the parish. For example, single parent homes are likely to be living in poverty with at least one-quarter of these homes below the federal poverty rate throughout the service area. Almost half (46.1%) of single parent homes in Pearl River, LA (70452) earn incomes below federal poverty rates; while in Carriere, MS (39423), the rate is more than two-thirds (73.2%).

- The overall CNI score for the Slidell Memorial Hospital service area has increased from 3.2 to 3.7 from 2011 to 2015; a score that is higher than the median for the scale (3.0), indicating more than average socio-economic barriers to accessing health care across the service area. Five of the six zip codes (83.3%) in the hospital service area are above 3.0. The Slidell Memorial Hospital service area contains some of the lowest CNI scores, across the entire Southeast Louisiana area, with 4.2 (Picayune, MS- 39466) being the highest. While a 4.2 CNI score indicates significant barriers to accessing health care, it is not the highest CNI score in the Greater New Orleans area. It will be important to take a close look at the higher CNI score areas to better understand the barriers to accessing health care. The highest scores in the Slidell Memorial Hospital service area are located in Picayune (39466), and Slidell (70458) (4.2 and 4.0, respectively). These areas have the highest rates of poverty, unemployment, uninsured, and lowest rates of educational attainment.
- The data suggest there is an increase in barriers to accessing healthcare for some of the hospital service area. A closer look at the changes in scores shows that four zip codes saw increases in barriers since 2011; and two remained unchanged. Of the two unchanged zip codes, one was an area with high barriers that remained unchanged. The change in CNI scores may be slightly inflated due to the lack of Medicaid expansion; causing higher uninsured rates than national norms. However, when socio-economic indicators measured by CNI are compared at the zip code level from 2011 to 2015, we see a pattern of increased rates of poor socio-economic measures. Socio-economic indicators (i.e., income, culture, education, insurance, and housing) are disintegrating at a rapid pace in areas that previously showed better socio-economics and there is little change in areas where socio-economic status was already poor.



- Community leaders and stakeholders noted that poverty and homelessness appears to have increased in Slidell, LA, where Slidell Memorial Hospital is located. This is apparent in the increased CNI score for Slidell, LA (70458) from 2.8 to 4.0 (an increase of 1.2) indicating significant increases in barriers to accessing healthcare. Community leaders discussed a development process taking place on the outskirts of 70458, which may be

drawing the younger, professional residents away; leaving an aging population with lower-fixed incomes and residents that cannot afford to relocate.

Louisiana is a state that has chosen not to expand Medicaid, a key component in healthcare reform that extends the population that is eligible for Medicaid insurance coverage. Kaiser Family Foundation estimates that 32% of uninsured, nonelderly Louisiana residents (866,000 people) remain ineligible for any insurance coverage or tax credits due to the lack of Medicaid expansion. The primary pathway for uninsured residents to gain coverage is the federally administered Marketplace where 34% (approximately 298,000) of uninsured Louisianans become eligible for tax credits. Though residents earning between 19% to 100% Federal Poverty Line (FPL) or $4,476 to $23, 550/year for a family of four do not qualify for any assistance at all.[3]

- In the findings of the 2013 CHNA, many focus group participants felt that healthcare may have been difficult for some residents to secure due to limited outreach programs, costly procedures, and a lack of health insurance coverage. Focus group participants also felt health insurance was difficult for some residents to afford, at that time, due to costly premiums and higher co-pays for medical care. Participants felt Medicare and supplemental insurance are costly and can be unaffordable for some residents that may be on a fixed income. Additionally, participants felt some residents may not be able to afford health insurance due to limited financial resources and the need to pay for basic necessities.
- Today, the uninsured rate for the hospital service area (12.1%) is less than the state (19%); and there are no zip code areas that have higher rates of uninsured residents than the state and the nation. However, Latino residents are more likely to be uninsured than their counterparts in St Tammany Parish (28.41% to 12.96%, respectively) and Pearl River, MS (27.54% to 20.87%, respectively). Additionally, we see the highest uninsured rates among residents reporting “Some other race” across the study area (St. Tammany Parish, LA and Pearl River, MS).
- During the community planning forum, community leaders discussed residents in areas with high rates of poverty, as well as seniors that are not always able to afford prescription medication (e.g., uninsured, donut insurance coverage, etc.) without some form of assistance. Leaders and stakeholders indicated that there are very few resources available to subsidize prescription medications. Community leaders and stakeholders addressed the limitations of the Medicaid Waiver, which does not cover

[3] Source: Kaiser Family Foundation analysis based on 2014 Medicaid eligibility levels and 2012-2013 Current Population Survey

hospitalization, prescription medications, or specialty care. As a result, many community-based clinics do not have access to specialty diagnostic services and many treatment options. Among the results of the 2013 CHNA, stakeholders felt there is a lack of access to affordable medication; resulting in some residents not being able to afford prescription medications to control chronic illness.

- Today, the percent of insured population receiving Medicaid benefits (2009-2013) was highest in Pearl River, MS (26.52%); followed by St. Tammany Parish, LA (16.69%) as compared to the Louisiana (25.70%), Mississippi (28.22%) and national (20.21%) rates. If physicians are not accepting new Medicaid patients, as primary data indicates, it is possible that many patients in the hospital service area are not able to secure primary care even though they are insured.
- During the 2013 CHNA, focus group participants felt the cost of medical care, including medical prescriptions, could be unaffordable for some residents due to costly procedures. Additionally, some focus group participants perceived Medicare/Medicaid as not being comprehensive enough to cover the cost of medical care because residents receive medical bills for the cost of services that are not covered by Medicare/Medicaid. Participants believed patients may, at times, resist care due to costly fees/co-pays and uninsured patients are less likely to seek medical care, which participants believed may result in untreated illness and a poorer health status. Today, uninsured and underinsured residents may also be resisting seeking health services due to the cost of uninsured care, unaffordable copays and/or high deductibles. This trend was apparent in surveys collected with 38.6% of respondents reporting less than $29,999 annual household income. A higher percentage of respondents indicated that they could not see a doctor in the last 12 months because of cost (20%) when compared to the state average (18.9%). Additionally, 16.5% of respondents reported not taking medications as prescribed in the last 12 months due to cost. Stakeholders also felt that residents in poverty are less likely to secure health services prior to issues becoming emergent due to a lack of resources (i.e., time, money, transportation, etc.) and a focus on meeting basic needs, leading to a lower prioritization of health and wellness.

Provider to population ratios that are not adequate enough to meet the need:

Community leaders discussed that specialty care is not always available (i.e., pediatric neurosurgery, pediatric cardiology, endocrinology, trauma unit, diagnostics, and treatment). There are additional challenges to accessing specialty care for residents that are uninsured, Medicaid recipients, living in the most rural areas, and/or residents that live in communities with the highest rates of poverty.

- In 2013, stakeholders and focus group participants felt there was a shortage of healthcare providers throughout the region causing a lack of timely access to healthcare

providers, a lack of access to specialty services/providers, and over use of emergency medical care (i.e., non-emergency issues). Some focus group participants believed that there was an exodus of local physicians from their communities at that time. Stakeholders felt primary care in the Greater New Orleans area was a consistent issue due to huge caseloads, not enough physicians to see them all, and a lack of care coordination. Additionally, focus group participants were under the impression there are not enough healthcare professionals or clinics to meet the demand for under/uninsured medical care. Focus group participants believed many residents are seeking pediatric medical care outside of their community and many were under the impression, due to lack of resources, that follow-up care and/or in-home care is not being provided to some residents upon discharge from an inpatient stay at local hospitals.

- During the 2015 study, community leaders and stakeholders discussed the uncertainty in the medical industry and low reimbursement rates that drive the lack of services for Medicaid populations. Leaders discussed the lack of providers in Northshore communities accepting new patients with Medicaid (e.g., primary care practices, pediatric care, psychiatric care, orthodontists, etc.). Leaders discussed the retirement of one physician that served a large Medicaid population in Northshore communities leaving many families and individuals without a local medical provider that 1) Accepts Medicaid and 2) Is accepting new patients.

- Community leaders felt that there is a general lack of resources to meet the needs of residents with complex health needs and co-occurring health issues, which are often found among populations with higher poverty rates. The physician workforce is aging and many physicians are retiring, leading to a decrease in the number of physicians available. The primary care physician ratio in Pearl River, MS (28.94 per 100,000 pop.) is lower than St. Tammany Parish, LA, the state, and the national rates (86.6, 86.66, and 78.92 per 100,000 pop., respectively). However, the rates of Federally Qualified Health Centers (FQHC) was highest in Pearl River, MS (1.79 per 100,000 pop.) when compared to St. Tammany Parish, LA (0.86 per 100,000 pop.), with Mississippi, Louisiana, and national rates at 6.2, 2.1, and 1.92 per 100,000 pop., respectively. Stakeholders noted that there are FQHC clinics in St. Tammany Parish, LA (e.g., Covington, Slidell, etc.), though under/uninsured residents and Medicaid beneficiaries have limited options for local primary care providers in many Northshore communities due to the location of resources, size of the parish, and distance residents must travel. Community leaders indicated that there are gaps in available services in the hospital service area (i.e., palliative care services for Medicaid beneficiaries, pediatric neurosurgery, pediatric cardiology, endocrinology, trauma unit, diagnostics, care coordination, after-hours specialty care, HIV services, prescription assistance, primary care (rural areas), and community-based supportive services for seniors).

- When asked if they felt a variety of health services were available to them or their family, at least one in 10 survey respondents indicated they did not feel as though they have access to the following: vision services (18.8%), dental services (15.7%), cancer screening (15.7%), medical specialist (13%), primary care (12.3%), pediatric & adolescent health (10.8%), and healthy foods (10.3%).
- While not as clear an indication of restricted access to healthcare as provider rates, hospitalizations rates that are higher than expected are usually driven by access issues in the community. The end result is hospitalizations for illnesses that could have been resolved prior to becoming emergency situations. In the Slidell Memorial Hospital service area, there are higher rates when compared to the state and national rate across six of the fourteen PQI measures (i.e., COPD, or adult asthma; asthma in younger adults; congestive heart failure; perforated appendix; low birth weight; bacterial pneumonia; and urinary tract infection). The hospitalization rate for perforated appendix is the highest (538.46) when compared to state (322.43) and national (323.43) norms. The State of Louisiana has higher hospitalization rates when compared to the national trends for many of the PQI measures. The greatest difference in hospitalization rates is between the hospital service area, the state, and the nation are for congestive heart failure (CHF) (463.35, 404.11, and 321.38 respectively). When considering pediatric access to health services, the Pediatric Quality Indicators (PDI) are similar to the higher hospitalization rates in adult populations (i.e., diabetes, short-term complications- ages 6-17 years old, perforated appendix in ages 1-17 years old, and urinary tract infection- ages 3 months to 17 years old). Three of the five PDI measures show higher hospitalization rates for children than the national trends. Perforated appendix hospitalizations among children (one to 17 years old) in the hospital service area shows the highest rates when compared to St. Tammany Parish, LA, state (LA and MS), and national rates (400.00, 361.11, 322.09, and 344.22, respectively).

Need for care coordination:

Leaders discussed the need for care coordination for residents. Specifically, leaders discussed the importance of ensuring patients have access to treatment methods prescribed by the physician (i.e., medications, healthy nutrition, etc.) and that providers follow up with patients to improve implementation of treatment recommendations.

- In the 2013 CHNA, stakeholders believed hospital competition creates barriers to coordination of care throughout the region Focus group participants were also concerned with the level of coordination of medical care offered by local medical providers at that time. Many focus group participants were under the impression, due

to lack of resources, that follow-up care and/or in-home care was not being provided to some residents upon discharge from an inpatient stay at local hospitals.

- During this study, stakeholders discussed the lack of care coordination provided for uninsured, underinsured, Medicaid beneficiaries, and senior residents who are seeking care in inappropriate settings like the emergency room. Several stakeholders mentioned the benefits of home healthcare and palliative care for care coordination, though Medicaid eligible residents, reportedly, are not often approved for home health services.
- Community leaders discussed some of the barriers to efficient care coordination related to the perceptions that health staff have about HIPAA regulations and information sharing. Leaders discussed that many times staff are not familiar with HIPAA regulations and fear penalty for doing the wrong thing regarding the management of a patient's health information which causes a resistance to share any information at all.

Limited access to healthcare as a result of transportation issues.

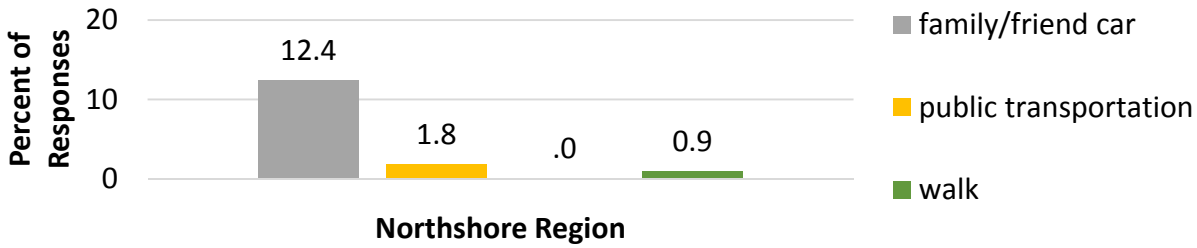
Transportation was discussed as a barrier to accessing health services for residents in the most rural Northshore communities with the highest poverty rates.

- In 2013, the absence of readily, accessible, convenient transportation was causing limited access to medical care for some residents because they could not get to and from their medical appointments. Many focus group participants felt the limited public transportation resulted in residents requiring the use of emergency medical transportation (EMT) services more often, which may have increased the cost of medical care and possibly over-utilization of emergency rooms for non- emergency related issues. Additionally, focus group participants believed that public transportation provided in some of their communities had restrictive regulations such as limited weekday hours, no weekend service, limited circulation, and 48-hour advanced scheduling. Participants felt those restrictions limited the convenience and availability of public transportation which ultimately affected their ability to access services at that time.
- Today, stakeholders also acknowledge that the lack of adequate transportation is one of the greatest barriers to accessing healthcare for seniors and residents in the most rural areas (i.e., Bogalusa, LA and Washington Parish). Many of the health service providers and FQHCs exist in the areas where population is the densest (i.e., Covington and Slidell) and residents of the more rural areas must travel further to secure health services. Transportation challenges in Northshore communities impact the health of residents in a variety of ways by limiting the access residents have to healthy options like medical providers and grocery stores with fresh foods. For this reason, stakeholders indicated

that rural residents often delay seeking health services until the issue becomes an emergency and potential outcomes are often poor. The limitations of transportation may restrict the access residents have to employment opportunities, which could be a barrier to insurance and financial stability. While each parish has a van that provides transportation, stakeholders noted that it is by appointment only and costly to maintain.

- While the general population shows average or below average rates of households with no motor vehicles when compared to state (8.48%) and national (9.07%) norms; 15.1% of survey respondents indicated that their primary form of transportation is some method other than their own car. In an area as rural as the Northshore, transportation becomes a stumbling block to accessing health services due to the limited public transportation options and travel required for many residents to see a health professional.

Figure 3: Methods of Regular Transportation



Stakeholders noted that the need for accessible healthcare among medically vulnerable populations (e.g., uninsured, low-income, Medicaid insured, etc.) has an impact on the health status of residents in a variety of ways and often leads to poorer health outcomes. Some of the noted effects are:

- ✓ Higher cost of healthcare that results from hospital readmissions and increased usage of costly emergency medical care.
- ✓ Residents delaying medical treatment and/or non-compliant due to the lack of affordable options and limited awareness of what options do exist.
- ✓ Poor outcomes in adult, maternal, and pediatric care due to limited care coordination and lack of patient compliance.

Increasing access to healthcare is an issue that carries forward from previous assessments, though some progress has been made by increasing access to community-based health services through the growth of FQHCs and urgent care clinics. It will be very important to further understand the access issues of low-income communities in the hospital service area. Primary data collected during this assessment from community leaders and residents offered several recommendations to increase access to healthcare. Some of which included:

- ***Physician recruitment and retention:*** Community leaders felt that there is a need to recruit more physicians that will accept Medicaid and specialty providers to Northshore communities. Additionally, leaders felt that hospitals could facilitate additional training in specialty areas for current staff to diversify the services offered in the community.
- ***Offer health services in rural areas where the rate of poverty is high:*** Leaders discussed increasing access to health services in communities where the poverty rates are high and transportation may be an issue. Leaders discussed mobile health services and satellite sites with limited hours as two models that may increase the availability of health services in underserved areas.
- ***Increase collaboration in the community to meet needs:*** Leaders discussed the need to increase collaboration among hospitals, community-based organizations, and community-based providers. The discussion focused on the need to develop creative solutions to challenging problems.

ADDRESSING BEHAVIORAL HEALTH ISSUES INCLUDING SUBSTANCE ABUSE

Underlying factors identified by secondary data and primary input from community leaders, community stakeholders, and resident survey respondents:

1. There are not enough providers to meet the demand and the spectrum of services available in most areas is not comprehensive enough to treat individual needs.
2. Care coordination is needed among behavioral health, substance abuse, and primary care/medical providers.

Community leaders at the community forum identified addressing behavioral health needs as a top health priority. Community leaders, stakeholders, and survey respondents agree that behavioral health and substance abuse is a top health priority. Discussions focused primarily on the limited number of providers, the need for care coordination, and the fact that individuals with behavioral health and substance abuse needs often have poor health outcomes.

Findings supported by study data:

There are not enough providers to meet the demand and the spectrum of services available in most areas is not comprehensive enough to treat individual needs:

- During the needs assessment conducted by Slidell Memorial Hospital in 2013, Stakeholder's perceived access was becoming increasingly difficult, especially among the mental health and indigent population. Focus group participants were under the impression that mental health services were limited and lacking the capacity to meet the demand for services due to recent closures and funding cuts.
- Wile the 2015 CHNA Needs assessment was being conducted, [St. Tammany] Parish leaders say [there are] two common places for people desperately needing [behavioral health] help to end up.

  > "We have people who are sent to jail who should be being treated in a facility, we have people going to emergency rooms, in there for 72 hours and then sometimes not a lot of treatment is going on. It's just a process," said Parish President Pat Brister.[4]
- Data suggests there is a need for behavioral health services

Table 2: County Health Rankings –Mental Health Providers (Count/Ratio) by Parish

Measure of Mental Health Providers*	LA	St. Tammany Parish	Pearl River, MS
Mental health providers (count)	5386	339	22
Mental health providers (ratio Population to provider)	859:1	715:1	2,503:1

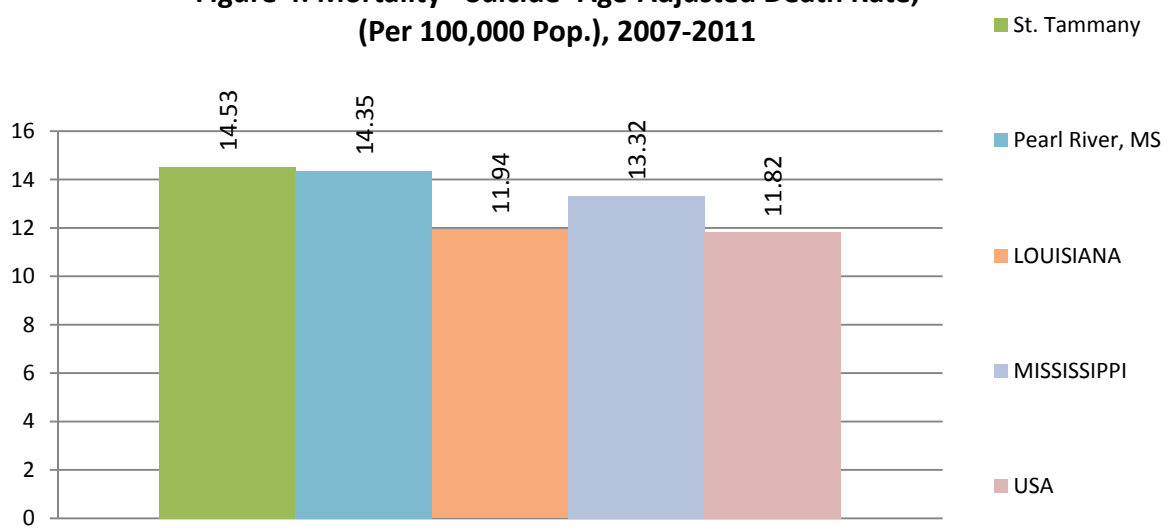
**County Health Ranking 2015*

- Pearl River, MS shows a significantly larger population to provider ratio (2,503 pop. for every 1 mental health provider) than St. Tammany Parish, LA and the state (715 and 859 pop. per provider respectively). However, there is no measure of the providers that are accepting under/uninsured and Medicaid eligible behavioral health patients. Both

[4] Source: St. Tammany creating 'one-stop shop' for mental health services (accessed 9/23/15-http://www.wwltv.com)

primary and secondary data suggests there is a need for additional behavioral health services in both geographical areas.

Figure 4: Mortality - Suicide- Age-Adjusted Death Rate, (Per 100,000 Pop.), 2007-2011



**Source: Community Commons. 06/08/2015*

- St. Tammany Parish, LA (14.53 per 100,000 pop.) and Pear River, MS (14.35 per 100,000 pop.) report rates of age-adjusted mortality due to suicide higher than LA, MS, and the nation (11.94, 13.32, and 11.82 per 100,000 pop., respectively) The Healthy People 2020 goal is for mortality due to suicide to be less than or equal to 10.2 per 100,000 population; the study area shows higher rates than this HP2020 Goal.
- More than one in five (21.4%) of survey respondents indicated that they have received mental health treatment or medication at some time in their lives. When asked to report health conditions that they had ever been diagnosed with by a health professional, survey respondents from the Northshore region reported higher diagnosis rates than the SELA region, the state and the nation for depressive disorder (25.5% vs. SELA- 21.5%, LA- 18.7%, and U.S. - 18.7%).
- A majority of stakeholders (80%) identified a health need related to behavioral health and/or substance abuse. Stakeholders discussed the lack of behavioral health and substance abuse resources in general and many noted that behavioral health and substance abuse needs are highest in communities with the highest rates of poverty. Stakeholders felt that there is a connection between environmental factors and the prevalence of behavioral health and substance abuse, a sentiment that was echoed in the previous 2013 CHNA study.

- Community leaders and stakeholders alike discussed the gaps in the available services for adults and children related to behavioral health and substance abuse diagnosis and treatment. Services that were noted as being inadequate in Northshore communities were inpatient crisis intervention, outpatient counseling services, and school-based screening. There is reportedly a resistance among behavioral health providers to accept Medicaid insurance and the cost of uninsured behavioral health services is unaffordable for residents who are Medicaid eligible. While there are inpatient beds and outpatient services available, stakeholders indicated that they are not adequate to meet the demand for behavioral health and substance abuse services in Northshore communities. In recent years, there has been a decrease in the number of inpatient beds and crisis services have declined. Outpatient services have improved but, often have lengthy waiting lists for diagnostic services as well as ongoing treatment.
- More than half (51.9%) of survey respondents selected "Drugs and Alcohol" as one of the top five health concerns in their communities. Stakeholders felt that the culture of New Orleans and its tourist industry encourages substance abuse and identified tobacco, alcohol, and marijuana as the most common substances being abused. Other substances noted were heroin and prescription pain medications. Stakeholders also felt that substance abuse is often a way for residents to self-medicate or cope with behavioral health issues including stress and serious mental illness (e.g., bipolar, schizophrenia, etc.).

> *"Katrina has had a major impact on the mental health of residents- the stress, and displacement of residents has had an impact and the response has not been adequate to meet the need." ~ First Responder*

Care coordination is needed among behavioral health, substance abuse, and primary care/medical providers:

- Among the findings of the 2013 CHNA, focus group participants believed mental health services throughout the region were disjointed and at times difficult to navigate. Some focus group participants believed there was disconnect in the communication between mental health providers, and physicians, and/or the school system. Focus group participants gave the impression that some residents in the region may not have been aware of available mental health services and believed , at the time, it resulted in patients suffering from mental illnesses may not have been getting their needs met.
- Today, community leaders discussed a fractured behavioral health system where residents are not seeking and receiving effective, ongoing behavioral health and/or substance abuse treatment. Residents may be seen in the emergency room for crisis

behavioral health and then have little follow up afterward. Care coordination is needed among behavioral health, substance abuse, and physical health providers.

Stakeholders noted that behavioral health and substance abuse has an impact on the health status of residents in a variety of ways and often leads to poorer heath out comes. Several of the noted effects of behavioral health and substance abuse are:

- ✓ Incarceration rates among residents with behavioral health and/or substance abuse diagnosis is high.
- ✓ Residents with a history of behavioral health and substance abuse do not always practice healthy behaviors and may be non-compliant with necessary medical treatments (e.g., HIV treatments).

Behavioral health has remained a top health priority and appears to be a theme in each data source included in this assessment. The underlying factors include: care coordination and workforce supply vs. resident demand. Primary data collected during this assessment from community leaders and residents offered several recommendations to address the need for behavioral health and substance abuse services. Some of which included:

- ***Integrate behavioral health and primary care:*** Leaders felt that primary care providers could begin screening for behavioral health symptoms and discussing these symptoms and resources with patients in order to decrease the stigma of behavioral health diagnoses and increase screening rates.

RESOURCE AWARENESS AND HEALTH LITERACY

Underlying factors identified by secondary data and primary input from community leaders, community stakeholders and resident survey respondents:

1. A lack of awareness about health resources
   - ✓ System navigation
2. Presence of barriers related to literacy and awareness
   - ✓ Need to increase educational outreach to vulnerable populations

Improving resource awareness and health literacy is identified as a top health priority for the Slidell Memorial Hospital service area. While there has been some development in health services since the last CHNA in 2013; there is limited awareness among residents regarding where to secure services and the health provider landscape remains largely disjointed.

According to stakeholders and community leaders, efforts to better connect service providers (e.g., the health information exchanges, electronic medical records, etc.) are in the earliest stages of development. There is agreement across data sources in support of improving resource awareness, health literacy of residents, and cultural sensitivity of providers in the hospital service area.

Findings supported by study data:

A lack of awareness about health resources:

- In the 2013 CHNA, stakeholders believed the healthcare system was fractured and there was a lack of consistent information and human resources available to help with navigation of the system. Stakeholders perceived there was not a system that was universally accessible or easy to navigate due to all of the different ways one could obtain healthcare and mental health care at that time.
- During the current assessment, stakeholders discussed a shift in the way health services are provided from the charity care model before Katrina to the community-based FQHC model providing primary care to residents through a network of FQHCs. One of the most discussed barriers to accessing health services in the study area was the awareness residents had regarding what services are available and where they are located. Residents are not securing health services in the proper locations because they are not aware of new clinics and services that may be available to them. The result has reportedly been an over utilization of the emergency rooms for primary care and behavioral health concerns.
- Community leaders felt that it can be difficult to identify which physicians will accept Medicaid. Leaders discussed the difficulty this poses in referrals as well as residents' ability to secure community-based primary care services.
- Community leaders and stakeholders felt that residents are not securing health services in the proper locations because they are not aware of where health services are located and what services are available at each location. There were further discussions by both sources about residents that may not always know how to utilize insurances once they are insured, and may continue to seek more costly care in the emergency room due to the need for health services that are more convenient.
- Stakeholders also indicated that residents are not always practicing prevention (e.g., screenings) due to a lack of awareness about healthy preventive practices. Stakeholders also pointed to education in charter schools as an issue related to the access youth have to education about reducing the spread of STIs and HIV.

Table 3: Survey Responses – Preferences for Receiving Information about Healthcare

Preferred Method	Respondents (%)
Newspaper	26.4%
TV	33.0%
Internet	33.1%
Word of Mouth	61.0%
Radio	12.4%
Library	3.7%
Clinics	18.8%
Faith/Religious Organizations	20.3%
Call 2-1-1	3.9%
Other	5.4%

- One of the greatest challenges in increasing health literacy and resources awareness will be the method many respondents prefer to use when receiving information about health services (i.e., 61% prefer word of mouth).

Presence of barriers related to literacy and awareness:

- Community leaders and stakeholders discussed the limited awareness of residents with the lowest educational attainment in their communities; noting that the capacity to advocate for themselves is greatly reduced as a result. Stakeholders noted that there is a high correlation between lower educational attainment and a lower level of health literacy; indicating that residents are not always being assessed for their level of understanding. There is evidence of areas where educational attainment is low in Pearl River, LA (70452) where more than 20% of residents did not earn a high school diploma (22.2%). Additionally, stakeholders felt that the movement toward electronic medical records, the use of online applications, and internet based systems may leave some residents that do not have access to computers and/or whom may be unfamiliar with computers without access to relevant health information.

Health literacy can impact the level of engagement with health providers at every level; limiting preventive care, emergent care, and ongoing care for chronic health issues; leading to health disparities among vulnerable populations with limited literacy skills and limited computer literacy.

- ✓ There are socio-economic and racial disparities apparent in secondary data related to health outcomes (i.e., HIV/AIDS, low birth weight, infant mortality, heart disease, cancer, colon cancer, prostate cancer, stroke (Pearl River, MS), and homicide).

Primary data collected during this assessment from community leaders and residents offered several recommendations to improving resource awareness and health literacy. Some of which include:

- ***Increase awareness through outreach education with providers and residents alike:*** Community leaders indicated that there is a need to increase the level of education and outreach being provided in the community to health service providers as well as residents. Leaders felt the providers could benefit from education regarding available services, the use of HIPAA regulations, behavioral health symptoms, elder abuse, and sensitivity. Leaders felt that residents could benefit from additional education and awareness regarding preventive practices, available services, appropriate use of healthcare resources, the risks of HIV, end of life decisions, and behavioral health symptoms.
- ***Increase access to information about what services are available:*** Leaders discussed the development of a searchable data warehouse of resources that would be updated on a regular basis to ensure accuracy of information.

Community Health Needs Identification Forum

The following qualitative data were gathered during a regional community planning forum held on August 3rd in Slidell, LA. The community planning forum was conducted with community leaders representing the Slidell Memorial Hospital primary service area. Community leaders were identified by the CHNA oversight committee for Slidell Memorial Hospital. The community forum was conducted by Tripp Umbach consultants and lasted approximately two hours.

Tripp Umbach presented the results from secondary data analysis, community leader interviews, and community surveys, and used these findings to engage community leaders in a group discussion. Community leaders were asked to share their vision for the community they represent, discuss an action plan for health improvement in their community, and prioritize their concerns. Breakout groups were formed to pinpoint, identify, and prioritize issues/problems that were most prevalent and widespread in their community. Most importantly, the breakout groups were charged to identify ways to resolve their community's identified problems through innovative solutions in order to bring about a healthier community.

Group Recommendations:

The group provided many recommendations to address community health needs and concerns for residents in the Slidell Memorial Hospital service area. Below is a brief summary of the recommendations:

- ***Increase awareness through outreach education with providers and residents alike:*** Community leaders indicated that there is a need to increase the level of education and outreach being provided in the community to health service providers as well as residents. Leaders felt the providers could benefit from education regarding available services, the use of HIPAA regulations, behavioral health symptoms, elder abuse, and sensitivity. Leaders felt that residents could benefit from additional education and awareness regarding preventive practices, available services, appropriate use of healthcare resources, the risks of HIV, end of life decisions, and behavioral health symptoms.
- ***Physician recruitment and retention:*** Community leaders felt that there is a need to recruit more physicians that will accept Medicaid and specialty providers to Northshore communities. Additionally, leaders felt that hospitals could facilitate additional training in specialty areas for current staff to diversify the services offered in the community.

- ***Integrate behavioral health and primary care:*** Leaders felt that primary care providers could begin screening for behavioral health symptoms and discussing these symptoms

and resources with patients in order to decrease the stigma of behavioral health diagnoses and increase screening rates.

- ***Offer health services in rural areas where the rate of poverty is high:*** Leaders discussed increasing access to health services in communities where the poverty rates are high and transportation may be an issue. Leaders discussed mobile health services and satellite sites with limited hours as two models that may be able to increase the availability of health services in underserved areas.
- ***Increase access to information about what services are available:*** Leaders discussed the development of a searchable data warehouse of resources that would be updated on a regular basis to ensure accuracy of information.
- ***Increase collaboration in the community to meet needs:*** Leaders discussed the need to increase collaboration among hospitals, community-based organizations, and community-based providers. The discussion focused on the need to develop creative solutions to challenging problems. For example, leaders discussed allocating a percentage of hospital beds that are not in use for homeless shelter beds each night.

Problem Identification:

During the community planning forum process, community leaders discussed regional health needs that centered around three themes. These were (in order of priority assigned):

1. **Access to Health Services**
2. **Behavioral Health and Substance Abuse**
3. **Resource Awareness and Health Literacy**

The following summary represents the most important topic areas, within the community, discussed at the planning retreat in order of priority. Community leaders believe the following concerns are the most pressing problems and are identified as the most manageable to address and tackle.

ACCESS TO HEALTH SERVICES:

Community leaders identified access to health services as a community health priority. Leaders focused discussions around Medicaid access issues, physician workforce issues, and care coordination.

Contributing Factors:

- There are not enough primary care providers in Northshore communities accepting new patients with Medicaid. Leaders discussed the retirement of one physician that served a

large Medicaid population in Northshore communities leaving many families and individuals without a local medical provider that 1) Accepts Medicaid and 2) Accepting new patients.

- Leaders discussed the uncertainty in the medical industry and low reimbursement rates that drive the lack of services for Medicaid populations.
- Residents that qualify for the Medicaid Waiver are not covered in hospitals and do not have prescription assistance, often leaving these residents without access to diagnostic and treatment options.
- There is a general lack of resources to meet the needs of residents with complex health needs and co-occurring health issues, which are often found among populations with higher poverty rates.
- There are residents who are not able to afford health insurance.
- Youth that become ineligible for Medicaid due to age do not have resources to cover their medical needs as young adults. Many of these youth do not have other options to cover the cost of health services.
- Palliative care services are not always available to residents due to a lack of reimbursement for end-of-life care. Additionally, residents are not always aware of where to secure palliative services.
- Specialty care is not always available (i.e., pediatric neurosurgery, pediatric cardiology, endocrinology, trauma unit, diagnostics and treatment). There are additional challenges to accessing specialty care for residents that live in the most rural Northshore communities and for resident that are uninsured or Medicaid recipients.
- The physician workforce is aging and many physicians are retiring, leading to a decrease in the number of physicians available, further restricting access to health services.
- HIPAA regulations have created barriers for medical staff regarding care coordination and information sharing. Leaders discussed that many times staff are not familiar with HIPAA regulations and fear penalty for doing the wrong thing regarding the management of a patient's health information which causes a resistance to share any information.
- Transportation was discussed as a barrier to accessing health services for the most rural residents in Northshore communities.
- There is limited follow up for Medicaid populations that seek care in the hospital.

BEHAVIORAL HEALTH AND SUBSTANCE ABUSE:

Behavioral health and substance abuse services were discussed at the community forum. Community leaders focused their discussions primarily on the impact on child development, the limited number of providers, and the need for care coordination.

Contributing Factors:

- There is a stigma associated with behavioral health diagnoses, which causes residents to resist seeking diagnosis and treatment.
- There are gaps in the available services for adults and children related to behavioral health and substance abuse diagnosis and treatment. Services noted as being inadequate in Northshore communities were inpatient crisis intervention and outpatient counseling services. Leaders noted that the resources that do exist are good, and explained that the level of services is not adequate to meet the demand. Leaders discussed the impact of inadequate services on the higher than average suicide rates in Northshore communities.
- Leaders discussed a fractured behavioral health system where residents are not seeking and receiving effective ongoing behavioral health and/or substance abuse treatment. Residents may be seen in the emergency room for crisis behavioral health and then have little follow-up afterward. Care coordination is needed among behavioral health, substance abuse, and physical health providers.
- Leaders discussed an almost universal lack of awareness regarding behavioral health and substance abuse symptoms among residents, which leads to a lack of diagnosis and treatment of behavioral health issues.

RESOURCE AWARENESS AND HEALTH LITERACY:

Community leaders discussed resource awareness and health literacy as a top health priority. Community leaders focused their discussions primarily on awareness of the health resources that exists among providers and residents, system navigation issues, and the education of vulnerable populations.

Contributing Factors:

- Leaders discussed the limited awareness of residents with the lowest educational attainment in their communities; noting that the capacity to advocate for themselves is greatly reduced as a result.
- Residents that are medically fragile do not always have a person that can advocate for their health and wellness in medical settings.
- Socio-economic status may pose additional challenges to residents navigating available resources. For example, there are specific physicians that accept Medicaid insurance however; many health care professionals do not accept new patients with Medicaid coverage.
- Residents are not always being assessed to determine their level of understanding and health literacy.

- Residents do not always know how to utilize insurances once they are insured, and may be seeking more costly care in the emergency room due to the need for health services that are more convenient.
- Leaders discussed the stigma associated with diagnoses like behavioral health issues and STIs like HIV; leading residents to avoid screening activities when they are offered.
- Leaders noted the limited collaboration among organizations meeting the health needs of medically vulnerable populations due to the silos that exist in funding and program development.

Secondary Data

Tripp Umbach worked collaboratively with the Slidell Memorial Hospital CHNA oversight committee to develop a secondary data process focused on three phases: collection, analysis, and evaluation. Tripp Umbach obtained information on the demographics, health status, and socio-economic and environmental factors related to the health and needs of residents from the multi-community service area of Slidell Memorial Hospital. The process developed accurate comparisons to the state baseline of health measures utilizing the most current validated data. In addition to demographic data, specific attention was focused on two key community health index factors: Community Need Index (CNI) and Prevention Quality Indicators Index (PQI). Tripp Umbach provided additional comparisons and trend analysis for CNI data from 2012 to present.

Demographic Data

Tripp Umbach gathered data from Truven Health Analytics, Inc. to assess the demographics of the study area. The Slidell Memorial Study Area is defined to include the 6 zip codes across the 2 parishes; for comparison purposes the Slidell Memorial Study Area looks to compare St. Tammany Parish and Pearl River County, MS (parish/counties with the largest number of zip codes that make up the study area). Information pertaining to population change, gender, age, race, ethnicity, education level, housing, income, and poverty data are presented below.

Population Change

- The Slidell Memorial Study Area encompasses more 119,649 residents.
- In 2015, the largest parish in the study area is St. Tammany Parish with 246,163 residents in 2015.
- From 2015 to 2020, St. Tammany Parish is projected to experience the largest percentage change in population with a 5.1% increase.
- St. Tammany Parish is projected to experience the largest rise in number of residents, going from 246,163 residents in 2015 to 258,662 residents in 2020 (an increase of 12,499 residents).
- In the study area, Slidell Memorial Study Area and St. Tammany Parish are projected to have population growth while Pearl River County, MS is expected to have a population decline of -0.6% (a loss of 358 residents).

- The gender breakdown for the study area is generally consistent across the parishes and similar to state and national norms.
- Pearl River County, MS reports the largest population of residents aged 65 and older (17.1%) followed by St. Tammany Parish (15.0%).
- Pearl River County, MS reports the highest White, Non-Hispanic population percentage at 81.2%, this is much higher than state (59.1%) and national norms (61.8%).
- Slidell Memorial Study Area reports the highest Black, Non-Hispanic population across the study area counties at 17.2%.
- All of the study area parishes report lower rates of Hispanic residents as compared with the country (17.6%). St. Tammany Parish reports the highest Hispanic population rate at 5.4%.
- Slidell Memorial Study Area reports the highest rate of residents with 'Less than a high school' degree (10.7%); this is nearly double the state (6.1%) and national (5.9%) rates.
- St, Tammany Parish reports the highest rate of residents with a Bachelor's degree or higher with 29.2%; this is higher than state (21.7%) and national (28.9%) norms.
- Pearl River County, MS reports the lowest average annual household income for the study area at $55,103.
- St. Tammany Parish reports the highest average annual household income compared to the other parishes in the study area at $82,316; this is higher than state ($64,209) and national norms ($74,165).
- Pearl River County, MS reports the highest rate of households that earn less than $15,000 per year (18.2%); in other words, more than a 1 in every 4 residents of these parishes have household incomes less than $15,000 per year.

Community Needs Index (CNI)

In 2005 Catholic Healthcare West, in partnership with Thomson Reuters, pioneered the nation's first standardized Community Need Index (CNI).[5] CNI was applied to quantify the severity of health disparity for every zip code in the study area based on specific barriers to health care

[5] Truven Health Analytics, Inc. 2015 Community Need Index.

access. Because the CNI considers multiple factors that are known to limit health care access, the tool may be more accurate and useful than other existing assessment methods in identifying and addressing the disproportionate unmet health-related needs of neighborhoods or zip code areas.

The CNI score is an average of five different barrier scores that measure various socio-economic indicators of each community using the 2015 source data. The five barriers are listed below along with the individual 2015 statistics that are analyzed for each barrier. These barriers, and the statistics that comprise them, were carefully chosen and tested individually by both Dignity Health and Truven Health:

1. Income Barrier
    a. Percentage of households below poverty line with head of household age 65 or more
    b. Percentage of families with children under 18 below poverty line
    c. Percentage of single female-headed families with children under 18 below poverty line
2. Cultural Barrier
    a. Percentage of population that is minority (including Hispanic ethnicity)
    b. Percentage of population, over age 5, that speaks English poorly or not at all
3. Education Barrier
    a. Percentage of population, over 25, without a high school diploma
4. Insurance Barrier
    a. Percentage of population in the labor force, aged 16 or more, without employment
    b. Percentage of population without health insurance
5. Housing Barrier
    a. 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 code's 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.

A total of 5 of the 6 zip code areas (83.3%) for the Slidell Memorial Study Area fall above the median score for the scale (3.0), one falls at the median, and none fall below the median. Being above the median for the scale indicates that these zip code areas have more than average the number of barriers to health care access.

Figure 5. Slidell Memorial Hospital Study Area 2015 CNI Map

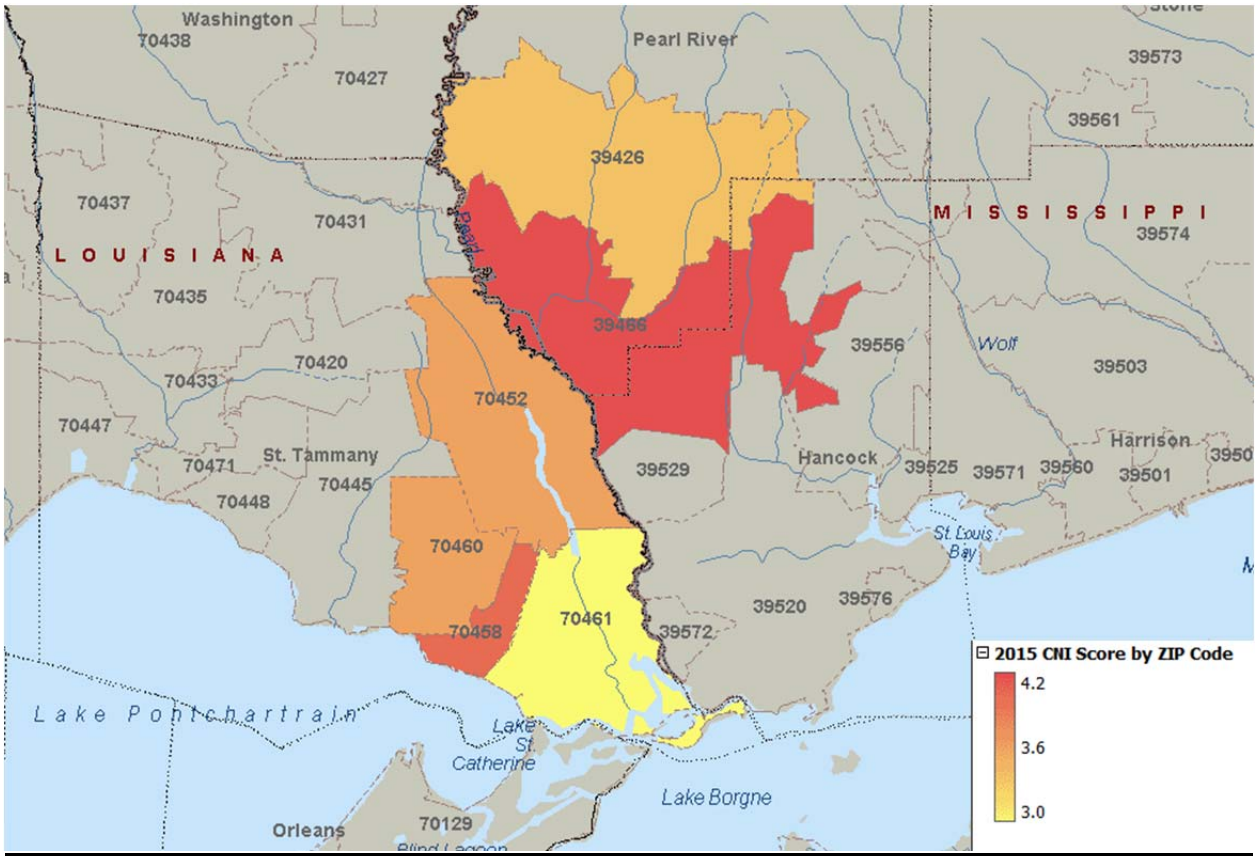


Table 4: Slidell Memorial Hospital - 2015 CNI Detailed Data

Zip	City	2015 CNI Score	Poverty 65+	Poverty Married w/ kids	Poverty Single w/kids	Limited English	Minority	No High School Diploma	Un-employed	Un-insured	Renting
39466	Picayune	4.2	15.1%	29.1%	56.0%	0.2%	24.3%	18.1%	11.2%	15.6%	27.1%
70458	Slidell	4.0	12.9%	22.5%	45.2%	0.7%	25.6%	14.3%	9.2%	10.4%	26.4%
70452	Pearl River	3.6	14.7%	26.2%	46.1%	0.2%	12.5%	22.2%	8.6%	14.7%	19.9%
70460	Slidell	3.6	11.0%	21.5%	42.1%	1.3%	39.3%	16.0%	9.7%	11.4%	21.4%
39426	Carriere	3.4	15.1%	29.2%	73.2%	0.1%	9.5%	16.0%	9.5%	13.4%	14.5%
70461	Slidell	3.0	9.4%	13.9%	26.8%	0.8%	32.4%	9.5%	10.7%	9.4%	24.0%

For the Slidell Memorial Study Area all the included zip codes have CNI scores below 5.0 (a score of 5 indicates the highest rank nationally of significant barriers to health care access).

- Zip code area 70452 in Pearl River reports the highest rates of residents with no high school diploma (22.2%).
- Zip code area 70460 in Slidell reports the highest rate of residents identifying as a minority (39.3%).

On the other end of the spectrum, the lowest CNI score for the study area is 3.0 in 70461 in Slidell.

- Zip code area 36426 in Carriere reports the lowest rates of limited English and residents identifying as a minority for the study area (0.1% and 9.5% respectively).

Pearl River County, MS reports the highest overall CNI value for the study area at 3.9.

Figure 6: Overall CNI Values - Slidell Memorial, Parishes, Counties

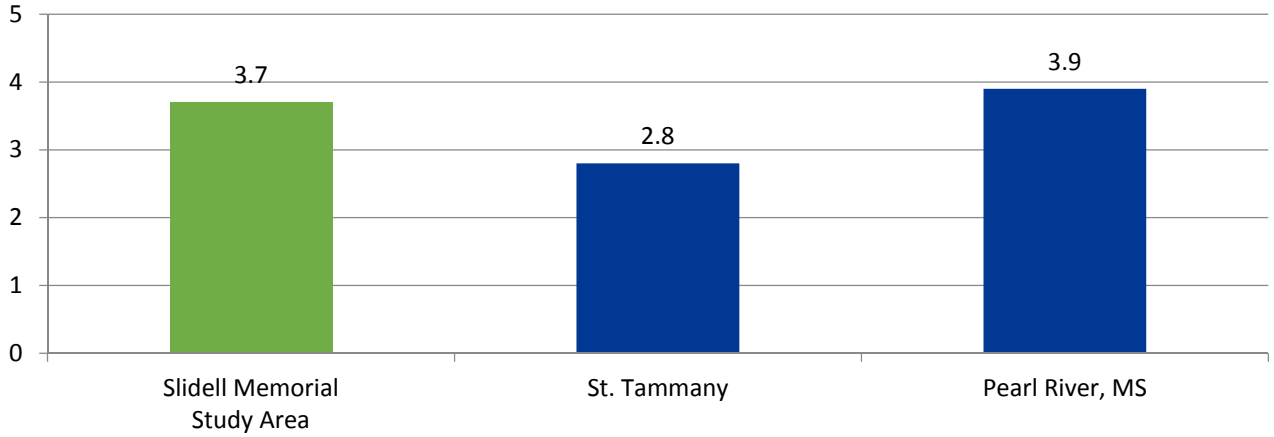
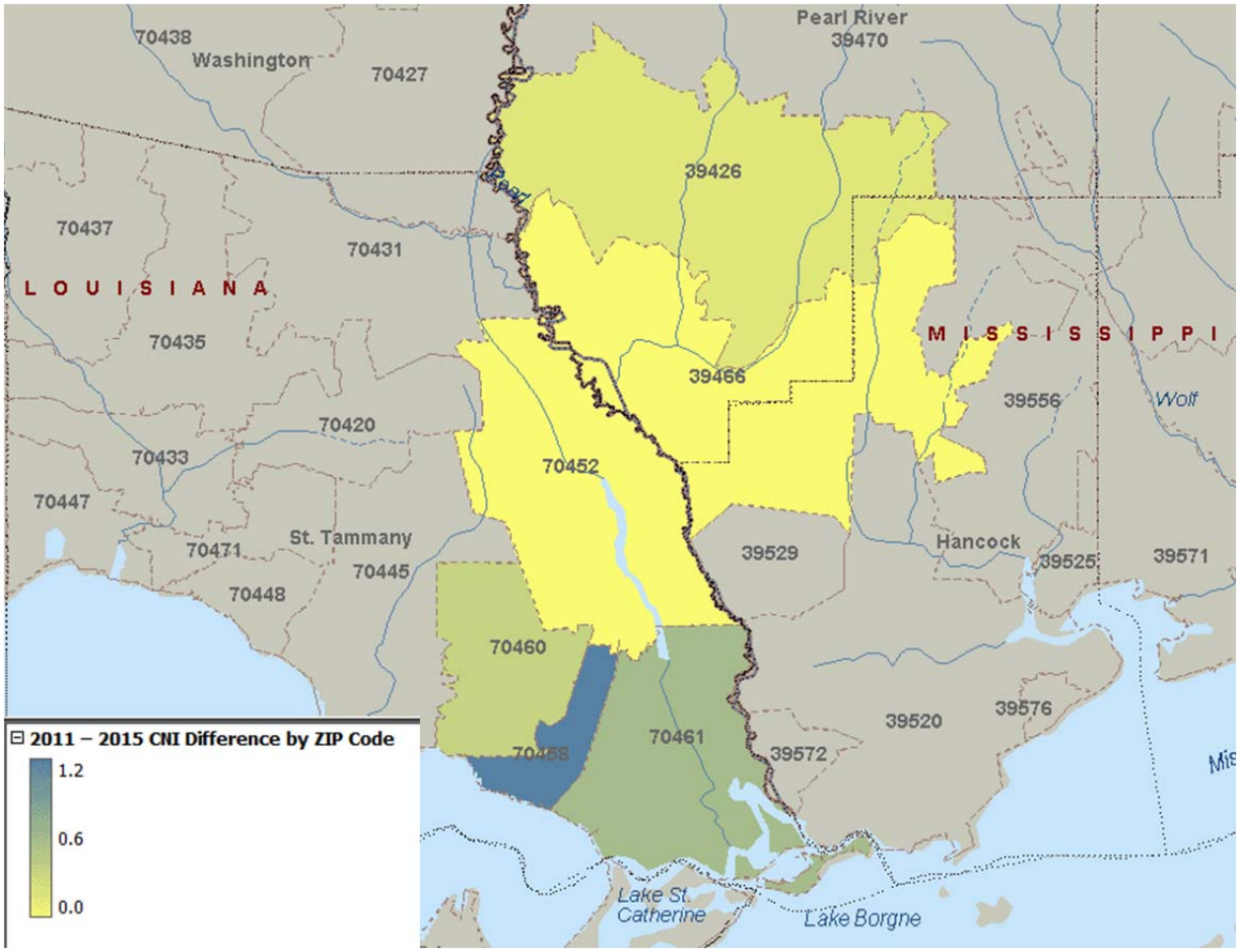


Figure 7. CNI Trending - Slidell Memorial Hospital Study Area 2011 - 2015 CNI Difference Map



The available data behind the rankings illustrates the supporting data for each CNI ranking.

Across the 6 Slidell Memorial Study Area zip codes:

- 4 experienced a rise in their CNI score from 2011 to 2015, indicating a shift to more barriers to health care access (red, positive values)
- 2 remained the same from 2011 to 2015
- None experienced a decline in their CNI score from 2011 to 2015, indicating a shift to fewer barriers to health care access (green, negative values)

Zip code area 70461 – Slidell experienced the largest rises in CNI score (going from 2.4 to 3.0).

Table 5. CNI Trending - Slidell Memorial Hospital – 2011 to 2015 CNI Comparison

Zip	Community Name	County	Income Rank	Culture Rank	Education Rank	Insurance Rank	Housing Rank	2015 CNI Score	2011 CNI Score	Diff. 2011 - 2015

39466	Picayune	Pearl River County	4	4	4	5	4	4.2	4.2	**0.0**
70458	Slidell	St. Tammany Parish	4	4	4	4	4	4.0	2.8	**+ 1.2**
70452	Pearl River	St. Tammany Parish	4	3	5	4	2	3.6	3.6	**0.0**
70460	Slidell	St. Tammany Parish	3	4	4	4	3	3.6	3.2	**+ 0.4**
39426	Carriere	Pearl River County	5	3	4	4	1	3.4	3.2	**+ 0.2**
70461	Slidell	St. Tammany Parish	2	4	2	4	3	3.0	2.4	**+ 0.6**

Prevention Quality Indicators (PQI) and Pediatric Quality Indicators (PDI)[6]

The Prevention Quality Indicators index (PQI) was developed by the Agency for Healthcare Research and Quality (AHRQ). PQI is similarly referred to as Ambulatory Care Sensitive Hospitalizations. The quality indicator rates are derived from inpatient discharges by zip code using ICD diagnosis and procedure codes. There are 14 quality indicators.

The PQI index identifies potentially avoidable hospitalizations for the benefit of targeting priorities and overall community health. The index measures number of residents living in the hospital service area, which are hospitalized for one of the following reasons (note: this does not indicate that the hospitalization took place at Slidell Memorial Hospital). Lower index scores represent fewer admissions for each of the PQIs.

PQI Subgroups:

1. Chronic Lung Conditions
    - PQI 5 Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults (40+) Admission Rate[7]
    - PQI 15 Asthma in Younger Adults Admission Rate[8]

[6] PQI and PDI values were calculated including all relevant zip-code values from Louisiana; Mississippi data could not be obtained and was therefore not included.

[7] PQI 5 for past study was COPD in 18+ population; PQI 5 for current study is now restricted to COPD and Asthma in 40+ population

[8] PQI 15 for past study was Adult Asthma in 18+ population; PQI 15 for current study is now restricted to Asthma in 18-39 population ("Younger").

2. Diabetes

    - PQI 1 Diabetes Short-Term Complications Admission Rate
    - PQI 3 Diabetes Long-Term Complications Admission Rate
    - PQI 14 Uncontrolled Diabetes Admission Rate
    - PQI 16 Lower Extremity Amputation Rate Among Diabetic Patients

3. Heart Conditions

    - PQI 7 Hypertension Admission Rate
    - PQI 8 Congestive Heart Failure Admission Rate
    - PQI 13 Angina Without Procedure Admission Rate

4. Other Conditions

    - PQI 2 Perforated Appendix Admission Rate[9]
    - PQI 9 Low Birth Weight Rate[10]
    - PQI 10 Dehydration Admission Rate
    - PQI 11 Bacterial Pneumonia Admission Rate
    - PQI 12 Urinary Tract Infection Admission Rate

Table 6. Prevention Quality Indicators (PQI) Slidell Memorial/ LA / U.S.A. 2015

Prevention Quality Indicators (PQI)	Slidell Memorial Study Area 2015 PQI	LA 2015 PQI	U.S.A. 2015 PQI	Slidell Memorial Study Area – LA Diff.	Slidell Memorial Study Area – U.S.A. Diff.
Chronic Lung Conditions					
COPD or Adult Asthma (PQI5)	618.39	531.03	495.71	+ 87.36	**+ 122.68**
Asthma in Younger Adults (PQI15)	53.66	42.83	46.02	+ 10.83	**+ 7.64**

[9] PQI 2 changed from Perforated Appendix in Males 18+ for the past study to Perforated Appendix in Total 18+ population as a rate per 1,000 ICD-9 code admissions for appendicitis. This shift has changed the values for this measure drastically and therefore, Tripp Umbach did not adjust.

[10] Although not clearly explained by the AHRQ, it would seem that a definition of Newborn population has shifted for PQI 9 because the values are drastically lower in 2014 than in previous years (2011). This has shifted PQI 9 values drastically. Tripp Umbach did not adjust.

Diabetes					
Diabetes Short-Term Complications (PQI1)	92.90	98.10	63.86	- 5.20	**+ 29.04**
Diabetes Long-Term Complications (PQI3)	101.93	126.06	105.72	- 24.13	**- 3.79**
Uncontrolled Diabetes (PQI14)	11.11	15.57	15.72	- 4.46	**- 4.61**
Lower Extremity Amputation Among Diabetics (PQI16)	5.94	12.74	16.50	- 6.80	**- 10.56**
Heart Conditions					
Hypertension (PQI7)	45.16	46.06	54.27	- 0.90	**- 9.11**
Congestive Heart Failure (PQI8)	463.45	404.11	321.38	+ 59.34	**+ 142.07**
Angina Without Procedure (PQI13)	6.45	13.74	13.34	- 7.29	**- 6.89**
Other Conditions					
Perforated Appendix (PQI2)	538.46	322.43	323.43	+ 216.03	**+ 215.03**
Low Birth Weight (PQI9)	88.10	86.51	62.14	+ 1.59	**+ 25.96**
Dehydration (PQI10)	94.83	124.53	135.70	- 8.32	**- 40.87**
Bacterial Pneumonia (PQI11)	371.46	305.80	248.19	+ 65.66	**+ 123.27**
Urinary Tract Infection (PQI12)	225.28	209.39	167.01	+ 15.89	**+ 58.27**

Key Findings from 2015 PQI Data:

- ✓ When comparing the Slidell Memorial Study Area PQI data to the State of Louisiana rates, the Slidell Memorial Study Area reports higher preventable hospital admissions for:
  - ✓ COPD, or Adult Asthma
  - ✓ Asthma in Younger Adults
  - ✓ Congestive Heart Failure
  - ✓ Perforated Appendix
  - ✓ Low Birth Weight
  - ✓ Bacterial Pneumonia
  - ✓ Urinary Tract Infection
- ✓ When comparing the Slidell Memorial Study Area PQI data to the national rates, the Slidell Memorial Study Area study area reports higher preventable hospital admissions for:
  - ✓ COPD, or Adult Asthma
  - ✓ Asthma in Young Adults
  - ✓ Diabetes, Short-Term Complications
  - ✓ Congestive Heart Failure
  - ✓ Perforated Appendix
  - ✓ Low Birth Weight
  - ✓ Bacterial Pneumonia
  - ✓ Urinary Tract Infection
- There are a handful of PQI values in which the Slidell Memorial Study Area as well as a majority of the study area parishes report higher rates than is seen nationally (indicating areas in which there are more preventable hospital admissions than the national norm), these include:
  - ✓ COPD, or Adult Asthma
  - ✓ Asthma in Younger Adults
  - ✓ Diabetes, Short-Term Complications
  - ✓ Congestive Heart Failure

- ✓ Perforated Appendix
- ✓ Low Birth Weight
- ✓ Bacterial Pneumonia
- ✓ Urinary Tract Infection

- There are also a number of PQI measures in which the Slidell Memorial Study Area and many of the parishes in the study area report lower values than the nation (indicating areas in which there are fewer preventable hospital admissions than the national norm), these include:
  - ✓ Uncontrolled Diabetes
  - ✓ Diabetes, Long-Term Complications
  - ✓ Lower Extremity Amputation Among Diabetics
  - ✓ Diabetes, Long-Term Complications
  - ✓ Uncontrolled Diabetes
  - ✓ Hypertension
  - ✓ Angina Without Procedure
  - ✓ Dehydration

Pediatric Quality Indicators Overview

The Pediatric Quality Indicators (PDIs) are a set of measures that can be used with hospital inpatient discharge data to provide a perspective on the quality of pediatric healthcare. Specifically, PDIs screen for problems that pediatric patients experience as a result of exposure to the healthcare system and that may be amenable to prevention by changes at the system or provider level.

Development of quality indicators for the pediatric population involves many of the same challenges associated with the development of quality indicators for the adult population. These challenges include the need to carefully define indicators using administrative data, establish validity and reliability, detect bias and design appropriate risk adjustment, and overcome challenges of implementation and use. However, the special population of children invokes additional, special challenges. Four factors—differential epidemiology of child healthcare relative to adult healthcare, dependency, demographics, and development—can pervade all aspects of children's healthcare; simply applying adult indicators to younger age ranges is insufficient.

This PDIs focus on potentially preventable complications and iatrogenic events for pediatric patients treated in hospitals, and on preventable hospitalizations among pediatric patients.

The PDIs apply to the special characteristics of the pediatric population; screen for problems that pediatric patients experience as a result of exposure to the healthcare system and that may be amenable to prevention by changes at the provider level or area level; and, help to

evaluate preventive care for children in an outpatient setting, and most children are rarely hospitalized.

PDI Subgroups:

- PDI 14 Asthma Admission Rate (per 100,000 population ages 2 – 17)
- PDI 15 Diabetes, Short-Term Complications Admission Rate (per 100,000 population ages 6 – 17)
- PDI 16 Gastroenteritis Admission Rate (per 100,000 population ages 3 months – 17 years)
- PDI 17 Perforated Appendix Admission Rate (per 1,000 admissions ages 1 – 17)
- PDI 18 Urinary Tract Infection Admission Rate (per 100,000 population ages 3 months – 17 years)

Key Findings from PDI Data:

- ✓ Slidell Memorial Study Area reports the highest rate of preventable hospitalizations due to asthma for children aged 2 to 17 at 140.75 per 100,000 population; this is less than the national rate of 117.37.
- ✓ Both the Slidell Memorial Study Area and St. Tammany Parish report the highest rates of diabetes, short-term complications for those aged 6 to 17 years old for the study area (35.64 and 30.39 respectively); these rates are above the national rate of 23.89.
- ✓ Both the Slidell Memorial Study Area and St. Tammany Parish report less than half the state and country rates for Gastroenteritis for those aged 3 months to 17 years at 14.28 and 19.32 respectively; the national rate is 47.28.
- ✓ Both the Slidell Memorial Study Area and St. Tammany Parish report higher rates than the state and nation for perforated appendix for ages 1-17 years.
- ✓ Slidell Memorial Study Area reports the highest rate in the study area for urinary tract infection for those aged 3 months to 17 years at 41.40 per 100,00 population; this is higher than the national rate of 29.64.

Community Commons Data

Tripp Umbach gathered data from Community Commons related to social and economic factors, physical environment, clinical care, and health behaviors for the parishes of interest for the Slidell Memorial Hospital CHNA.[11] The data is presented in the categories below.

Medicaid

- Pearl River County, MS reports the highest rate of Insured Residents Receiving Medicaid at 26.52%; this rate is higher than the national (20.21%) rate.
- The population under the age of 18 receives the highest rates of Medicaid assistance across all of the study area parishes.
- St. Tammany Parish, LA reports the lowest rates among the study area parishes for all age groups receiving Medicaid (33.24%).
- Pearl River County, MS reports the highest rate of uninsured adults for the study area at 26.3%. This rate is higher than state (25.0% for both LA and MS) and national (20.8%) norms.
- Pearl River County, MS has experienced drastic declines in its rates of uninsured adults going from a high of 29.00% in 2010 to its lowest rate in the most recent data year of 2012 reporting 26.30%.
- The county of Pearl River in Mississippi reports the highest rate of uninsured children across the study area parishes at 7.3%.
- The State of Louisiana reports lower rates of uninsured children as compared with the State of Mississippi. Both states report lower rates of uninsured children as compared with the country (7.5%)
- From 2011 to 2012, nearly all of the study area parishes reported declines in the rates of uninsured children.
    - ✓ However, St. Tammany Parish, LA did see slight rises in the rates of uninsured children – going from 6.4% to 5.7%.

Uninsured Population

- Overall, men are more likely to be uninsured than women. Pearl River County is the only exception in the study area.

[11] Community Commons. http://www.communitycommons.org/ Accessed 06/08/2015.

- Those aged 18 – 64 are more likely to be uninsured as compared with those under 18 or those 65 and older.
- Residents of Hispanic or Latino ethnicity are more likely to be uninsured than their counterparts.
- Residents reporting "Some other race", for the majority of the study area parishes, have the highest rates of being uninsured.
- More than 60% of the "Some other race" population of Pearl River County, MS report being uninsured.
- The Native American/Alaska Native populations of both Pearl River County, MS and St. Tammany Parish, LA experience some of the highest rates of living in poverty as compared with the other study area parishes (56.28% and 49.04% respectively).

Primary Care Physicians

- Pearl River Country, MS reports the lowest number of physicians across the study area parishes at only 16.
- St. Tammany Parish, LA reports the most physicians in the study area.
- St. Tammany Parish, LA has the highest primary care physician (PCP) rate per 100,000 population at 86.03 in 2012.
- Pearl River County, MS reports the lowest rate of PCPs per 100,000 population at only 28.94 in 2012.

Federally Qualified Health Centers (FQHCs)

- Mississippi has a very high rate of FQHCs per 100,000 population at 6.2 (more than three times the national rate of 1.92).
- Pearl River County, MS reports the highest rate of FQHCs per population for the study area at 1.79 per 100,000.
- St. Tammany Parish, LA reports the lowest at 0.86 FQHCs per 100,000 population.

Regular Doctor

- Across the country, 22.07% of residents report not having a regular doctor (77.93% have a regular doctor); in Louisiana the rate is 24.09% and in Mississippi it is 25.58%.
- St. Tammany Parish, LA reports the highest rate of residents who do not have a regular doctor at 21.71%.

Population Living in an HPSA (Health Professional Shortage Area)

- Pearl River County, MS is a health care professional shortage area (HPSA) designated county; therefore 100% of their populations live in an HPSA designated area.
- St. Tammany Parish, LA reports at only 5.63%; the national rate is 34.07%.

Dentists

- St. Tammany Parish, LA reports the highest number of dentists across the study area parishes at 189.
- Pearl River County, MS reports the fewest dentists with only 11.
- St. Tammany Parish, LA has the highest dentist rate per 100,000 population at 77.99 in 2013.
- Pearl River County, MS reports the lowest rate of dentists per 100,000 population for the study area at only 19.97 in 2013.

Dental Exam

- The State of Mississippi and the study area county in Mississippi (Pearl River) report some of the highest rates of adults who have not had a dental exam (MS = 40.98%; Pearl River = 43.04%); the national rate is 30.15%.

Dental Health

- St. Tammany Parish, LA reports the lowest rate of adults with poor dental health for the study area at 14.55%; this is lower than the national rate of 15.65%.
- Pearl River County, MS reports a high rate of residents with poor dental health at 30.44%; this is almost double the national rate of 15.65%.

Poor Health

- Similar to poor dental health, Pearl River County, MS reports the highest rates of poor general health (25.40%); this is higher than the national rate of 15.74%.

HIV/AIDS

- The national rate of the population having never been tested for HIV/AIDS is 62.79%; in Louisiana only 56.23% have not been tested, and for Mississippi 61.18% have not been tested.
- The Non-Hispanic Black population sees the highest rates of HIV/AIDS.

- Pearl River County, MS, specifically, sees the highest rates of HIV/AIDS, for the study area; 806.01 per 100,000 Non-Hispanic Black population has HIV/AIDS, 109.45 per 100,000 Non-Hispanic White, and 0 for the Hispanic/Latino population.
- From 2008 to 2010, both of the study area parishes experienced slight rises in HIV/AIDS rates.

Chlamydia Infection

- Both of the study area parishes fall below the national chlamydia rate of 454.1 per 100,000 population:
  - ✓ St. Tammany Parish, LA reports a rate of 280.4 per 100,000 population.
  - ✓ Pearl River County, MS reports a rate of 272.8 per 100,000 population.

Gonorrhea Infection

- Similar to chlamydia infection, both of the study area parishes report a substantially lower rate of gonorrhea infection than all of the other states, and country at 73.6 per 100,000 population for Pearl River County, MS and 55.7 per 100,00 population for St. Tammany Parish, LA. The national chlamydia rate is 103.09 per 100,000 population.

Depression

- The State of Louisiana reports a higher rate of residents with depression (15.66%) than Mississippi (14.41%) and the country (15.45%).
- Both of the parishes in the study area report higher rate of depression than the national rate.
- Pearl River County, MS reports the highest rate of residents with depression within the study area at 16.15%.

Mortality – Suicide

- Both St. Tammany Parish, LA and Pearl River County, MS report a high rate of age-adjusted mortality due to suicide at 14.53 and 14.35 per 100,000 population, respectively; this rate is higher than the national rate (11.82) and both study area states.
- The Healthy People 2020 goal is for mortality due to suicide to be less than or equal to 10.2 per 100,000 population; all the study area parishes report rates higher than this HP2020 Goal.
- Men are more likely than women to die as a result of a suicide.

- The Hispanic/Latino population of the U.S. reports the highest rate of suicide at 32.88 per 100,000 population.
- For the study area, the Non-Hispanic White population of St. Tammany Parish, LA reports the highest rate of suicide at 16.72 per 100,000 population.

Heart Disease

- St. Tammany Parish, LA reports the highest rate of residents who have heart disease (5.22%); this rate is higher than the national rate of 4.40%.
- Looking specifically at the Medicare population, St. Tammany Parish, LA also reports the highest rate of residents with heart disease at 37.49%; the national rate being 28.55%.

Mortality – Heart Disease

- Pearl River County, MS reports the highest rate of age-adjusted mortality due to heart disease for the study area at 265.2 per 100,000 population.
- On a national level and for all of the study area parishes, men are more likely to die as a result of heart disease than women.
- The African-American/Black population of Pearl River County, MS reports the highest rate of death due to heart disease across the study area at 361.87 per 100,000 population.

Mortality – Ischemic Heart Disease

- Pearl River County, MS reports the highest rate of age-adjusted mortality due to ischemic heart disease for the study area at 140.07 per 100,000 population.
- The Healthy People 2020 goal is for mortality due to ischemic heart disease to be less than or equal to 103.4 per 100,000 population; St. Tammany Parish, LA reports rates already lower than this HP2020 Goal.
- On a national level and for both study area parishes, men are more likely to die as a result of ischemic heart disease than women.
- Non-Hispanic Black residents of Pearl River County, MS report the highest rate of death due to ischemic heart disease for the study area at 177.49 per 100,000 population.

High Blood Pressure

- Pearl River County, MS reports the highest rate of residents who have high blood pressure (39.10%); this rate is higher than the national rate of 28.16%.

- Looking specifically at the Medicare population, Pearl River County, MS continues to report the highest rate of residents with high blood pressure at 58.64%; the national rate being 55.49%.

Mortality – Stroke

- St. Tammany Parish, LA reports the highest rate of age-adjusted mortality due to stroke for the study area at 43.77 per 100,000 population.
- The Healthy People 2020 goal is for mortality due to stroke to be less than or equal to 33.8 per 100,000 population; all of the study area parishes report rates higher than this goal.
- On a national level, men are more likely to die as a result of stroke than women (40.51 per 100,000 pop. vs. 39.62); for the study area, it is slightly more female.
- The Non-Hispanic Black population of Pearl River County, MS reports the highest rate of death as a result of stroke, for the study area, at 103.83 per 100,000 population.

Asthma

- Pearl River County, MS reports the highest rate of adults with asthma, for the study area, at 17.02%; this is higher than the national rate of 13.36%.

Breast Cancer

- St. Tammany Parish, LA reports the highest incidence rate of breast cancer for the study area at 133.8 per 100,000 population; this is higher than the national rate of 122.7 per 100,000 pop.
- The Healthy People 2020 goal is for breast cancer incidence to be less than or equal to 40.9 per 100,000 population; all of the study area parishes and state report rates more than double this goal.
- The African-American/Black population of St. Tammany Parish, LA reports the highest rate of breast cancer incidence when looking at incidence by race/ethnicity (145.7 per 100,000 pop.).

Cervical Cancer

- St. Tammany Parish, LA reports the only incidence rate of cervical cancer for the study area at 7.4 per 100,000 population; this is lower than the national rate of 7.8 per 100,000 pop.

- The Healthy People 2020 goal is for cervical cancer incidence to be less than or equal to 7.1 per 100,000 population; all of the study area parishes and states report rates higher than this goal.

Colon and Rectum Cancer

- Pearl River County, MS reports the highest incidence rate of colon and rectum cancer for the study area at 50 per 100,000 population; this is higher than the national rate of 43.3 per 100,000 pop.
- The Healthy People 2020 goal is for colon and rectum cancer incidence to be less than or equal to 38.7 per 100,000 population; all of the study area parishes and states report rates higher than this goal.
- The African-American/Black population reports higher rates of colon and rectum cancer incidence as compared with other racial groups for the study area, the states, and nationally.

Lung Cancer

- Pearl River County, MS reports the highest incidence rate of lung cancer for the study area at 96.2 per 100,000.
- The African-American/Black population in Pearl River County, MS reports the highest rate of lung cancer incidence when looking at incidence by race/ethnicity (117.3 per 100,000 pop.).

Prostate Cancer

- St. Tammany Parish, LA reports the highest incidence rate of prostate cancer, for the study area, at 158.6 per 100,000 population; this value is higher than the national rate of 142.3 per 100,000 pop.
- The African-American/Black population reports higher rates of prostate cancer incidence as compared with other racial groups for the study area, the states, and nationally.

Mortality - Cancer

- Pearl River County, MS reports the highest rate of age-adjusted mortality due to cancer, for the study area, at 222.26 per 100,000 population.
- All of the study area parishes report higher rates of mortality due to cancer than the national rate of 174.08 per 100,000 population.

- The Healthy People 2020 goal is for mortality due to cancer to be less than or equal to 160.6 per 100,000 population; all of the study area parishes and state report rates higher than this goal.
- Across the study area, all of the parishes, states, and nationally; men have higher mortality rates due to cancer than women.
- The Non-Hispanic Black population of Pearl River County, MS reports the highest rate of mortality due to cancer, for the study area, with 240.27 per 100,000 population.

Teen Birth Rate

- Pearl River County, MS reported slight rises in the teen birth rates from the 2005-2011 5-year estimate census to the 2006-2012 5-year estimate census.
- Pearl River County, MS reports the highest teen birth rate among Non-Hispanic White girls (55.4 per 1,000 pop.).
- Pearl River County, MS reports the highest teen birth rate among Non-Hispanic Black girls (57.7 per 1,000 pop.).
- St. Tammany Parish, LA reports the highest teen birth rate among Hispanic/Latino girls (41.1 per 1000 pop.).

Low Birth Weight

- Pearl River County, MS reports the highest rate of low-weight births for the study area at 9.50%; followed closely by St. Tammany Parish, LA at 8.40%.
- All of the study area parishes report higher rates of low-weight births than the national rate of 8.2%.
- The Healthy People 2020 goal is for low–weight births to be less than or equal to 7.8%; all of the study area parishes and state report rates higher than this goal.
- The Non-Hispanic African-American/Black population sees higher rates of low-weight births as compared with other racial groups for the study area, the states, and nationally.
- Pearl River County, MS reports the highest rate of low-weight births in 2006-2012 (9.50%), for the study area; this rate has been steadily inclining since 2004-2010.

Infant Mortality Rate

- Pearl River County, MS reports the highest rate of infant mortality, for the study area, at 9.8 per 1,000 births; this rate is higher than the national rate of 6.52 per 1,000 births.

- The Healthy People 2020 goal is for infant mortality to be less than or equal to 6.0 per 1,000 births; all study area parishes report rates higher than this HP2020 Goal.
- The Non-Hispanic White population of Pearl River County, MS reports the highest rate of infant mortality, for the study area parishes, at 8.1 per 1,000 births.

Mortality – Pedestrian Accident

- Pearl River County, MS reports the highest rate of age-adjusted mortality due to pedestrian accident, for the study area, at 1.79 per 100,000 population.
- The Healthy People 2020 goal is for mortality due to pedestrian accident to be less than or equal to 1.3 per 100,000 population; St. Tammany Parish, LA reports rates already lower than this HP2020 Goal.

Mortality – Homicide

- Pearl River County, MS reports the highest rate of age-adjusted mortality due to homicide, for the study area, at 6.83 per 100,000 population; this rate is higher than the national rate (5.63) and all of the other study area parishes.
- The Healthy People 2020 goal is for mortality due to homicide to be less than or equal to 5.5 per 100,000 population; St. Tammany Parish, LA reports rates already lower than this HP2020 Goal.
- Men are more likely to die as a result of homicide than women.
- The Non-Hispanic Black population of St. Tammany Parish, LA reports the highest rate of death as a result of homicide across the study area at 16.89 per 100,000 population.

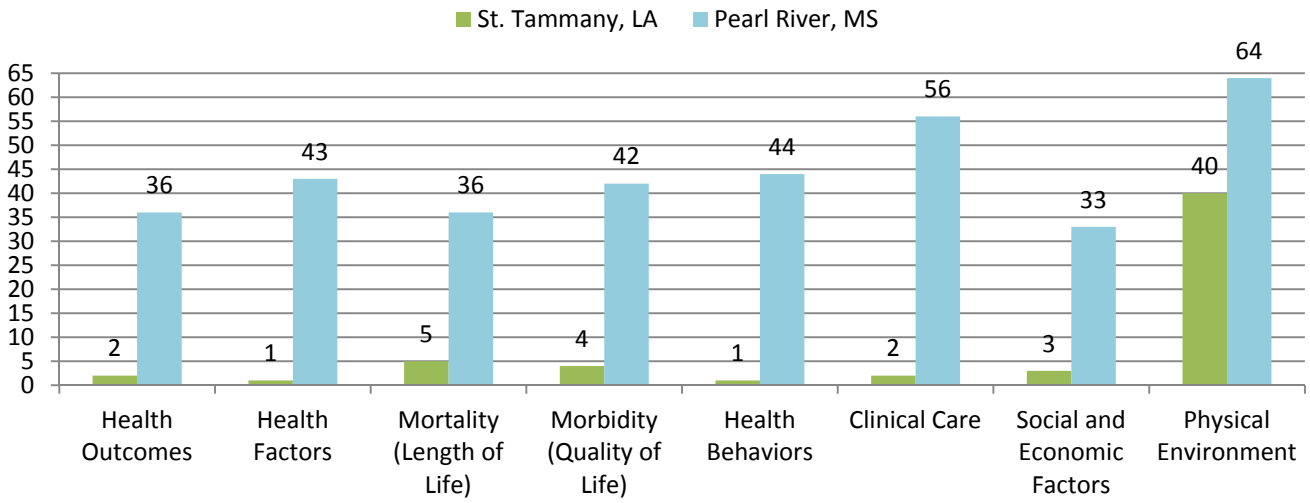
County Health Rankings

The County Health Rankings were completed as collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute.[12]

[12] 2015 County Health Rankings. Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute

Each parish receives a summary rank for its health outcomes, health factors, and also for the four different types of health factors: health behaviors, clinical care, social and economic factors, and the physical environment. Analyses can also drill down to see specific parish-level data (as well as state benchmarks) for the measures upon which the rankings are based. Parishes in each of the 50 states are ranked according to summaries of more than 30 health measures. Those having high ranks, e.g. 1 or 2, are considered to be the "healthiest." Parishes are ranked relative to the health of other parishes in the same state on the following summary measures:

- Health Outcomes – Rankings are based on an equal weighting of one length of life (mortality) measure and four quality of life (morbidity) measures.
- Health Factors – Rankings are based on weighted scores of four types of factors:
  - ✓ Health behaviors
  - ✓ Clinical care
  - ✓ Social and economic
  - ✓ Physical environment
- Mississippi has 82 counties. A score of 1 indicates the "healthiest" county for the state in a specific measure. A score of 82 for MS indicates the "unhealthiest" county for the state in a specific measure.
- Louisiana has 64 parishes. A score of 1 indicates the "healthiest" parish for the state in a specific measure. A score of 64 for LA indicates the "unhealthiest" parish for the state in a specific measure.



Key Findings from County Health Rankings:

- Pearl River County, MS reports the highest ranks (unhealthiest parish of the study area) for the all of the County Health Rankings:
  - A rank of 33 for Social and Economic Factors.
  - A rank of 36 for:
    - Health Outcomes
    - Mortality (Length of Life)
  - A rank of 42 for Morbidity (Quality of Life)
  - A rank of 43 for Health Factors.
  - A rank of 44 for Health Behaviors.
  - A rank of 56 for Clinical Care.
  - A rank of 64 out of the worst possible 82 for Physical Environment.
- St. Tammany Parish, LA ranks 40 out of the worst possible 64 for Physical Environment.

Substance Abuse and Mental Health

The Substance Abuse and Mental Health Services Administration (SAMHSA) gathers region specific data from the entire United States in relation to substance use (alcohol and illicit drugs) and mental health.

Every state is parceled into regions defined by SAMHSA. The regions are defined in the '*Substate Estimates from the 2010-2012 National Surveys on Drug Use and Health'*. Data is provided at the first defined region (i.e., those that are grouped).

The Substate Regions for Louisiana are defined as such:

- Regions 1 and 10 (Data for Regions 1 and 10 provided separately for this grouping only)
  - ✓ Region 1 – Orleans, Plaquemines, St. Bernard
  - ✓ Region 10 – Jefferson
- Regions 2 and 9
  - ✓ Region 2 – Ascension, East Baton Rouge, East Feliciana, Iberville, Pointe Coupee, West Baton Rouge, West Feliciana
  - ✓ Region 9 – Livingston, St. Helena, St. Tammany, Tangipahoa, Washington

- Region 3
  - ✓ Region 3 – Assumption, Lafourche, St. Charles, St. James, St. John the Baptist, St. Mary, Terrebonne
- Regions 4, 5, and 6
  - ✓ Region 4 – Acadia, Evangeline, Iberia, Lafayette, St. Landry, St. Martin, Vermilion
  - ✓ Region 5 – Allen, Beauregard, Calcasieu, Cameron, Jefferson Davis
  - ✓ Region 6 – Avoyelles, Catahoula, Concordia, Grant, La Salle, Rapides, Vernon, Winn
- Regions 7 and 8
  - ✓ Region 7 – Bienville, Bossier, Caddo, Claiborne, De Soto, Natchitoches, Red River, Sabine, Webster
  - ✓ Region 8 – Caldwell, East Carroll, Franklin, Jackson, Lincoln, Madison, Morehouse, Ouachita, Richland, Tensas, Union, West Carroll

Data concerning alcohol use, illicit drug use, and psychological distress for the various regions of the study area are shown here.

Alcohol Use in the Past Month

- For the Study Area, Regions 2 & 9 (St. Tammany) reports the highest current rate of alcohol use in the past month at 50.99% of the population aged 12 and older. However, Region 7 has seen the largest increase in alcohol use rate from 2002-2004 to 2010-2012.

Figure 9: Needing but Not Receiving Treatment for Alcohol Use in the Past Year

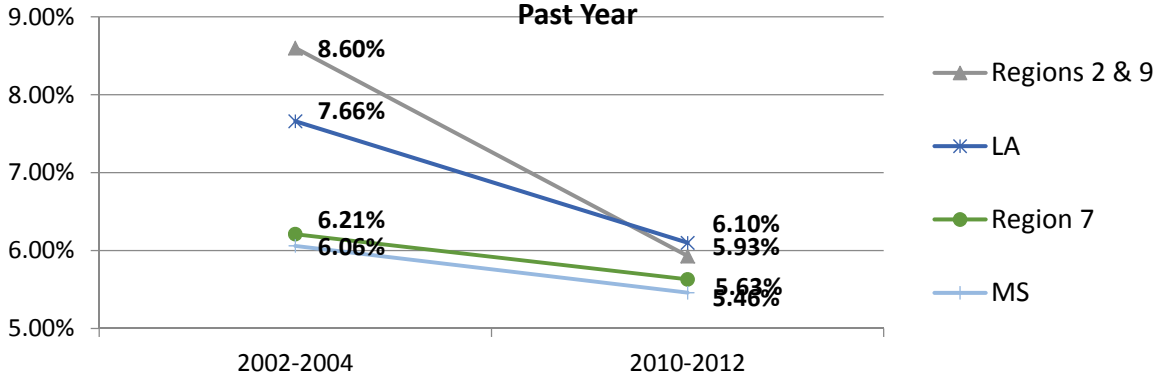
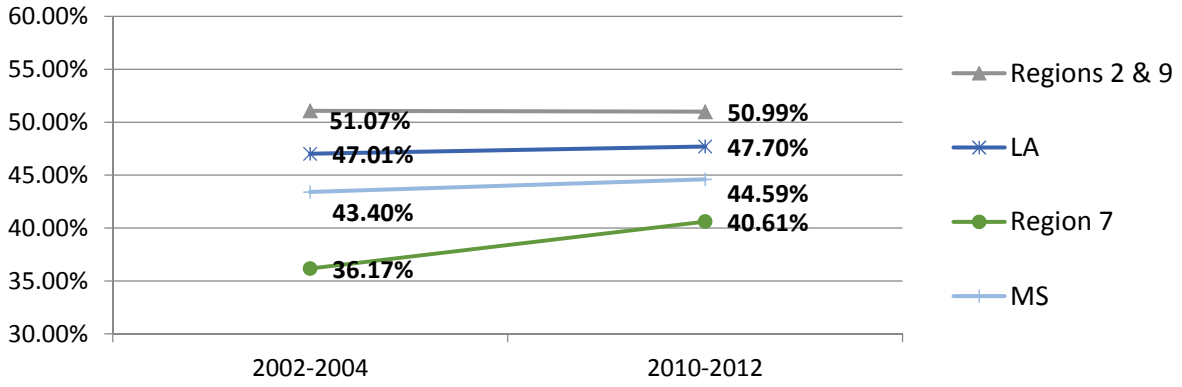


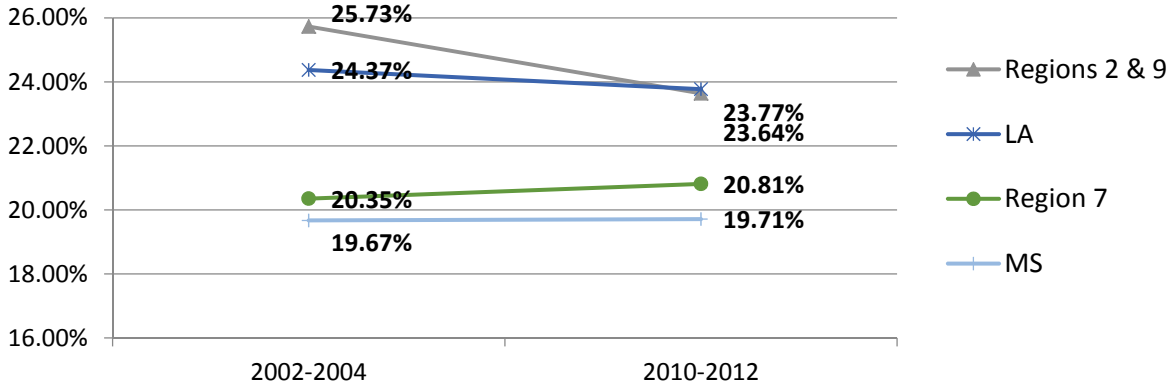
Figure 10: Alcohol Use in the Past Month



Binge Alcohol Use in the Past Month

- Regions 2 & 9 (St. Tammany Parish, LA) reports the highest rate, for the study area, in binge alcohol use despite seeing a decrease from 2002-2004 to 2010-2012.

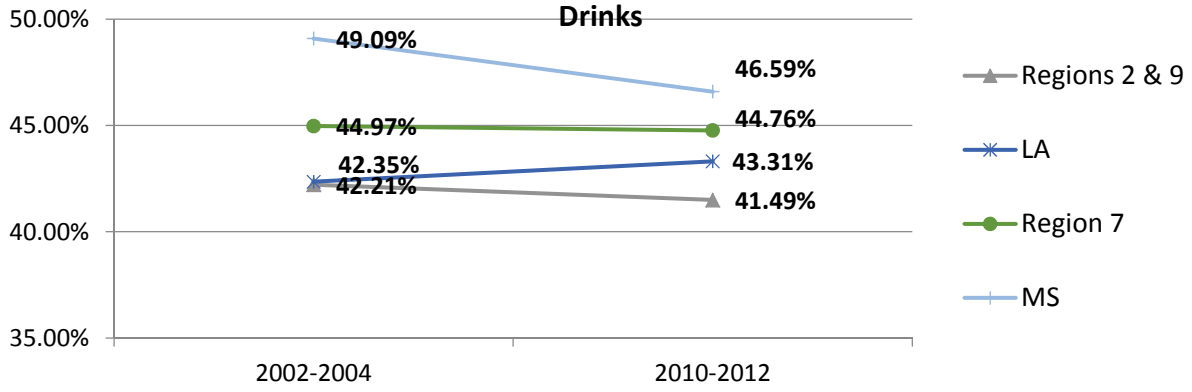
Figure 11: Binge Alcohol Use in the Past Month



Perceptions of Great Rick of Having Five or More Alcoholic Drinks Once or Twice a Week

- Many of the study area regions have shown declines in the perceptions of risk of having five or more drinks once or twice a week from 2002-2004 to 2010-2012.
- The State of Mississippi rates of perceptions of risk of having five or more drinks once or twice a week have declined from 2002-2004 to 2010-2012.

Figure 12: Perceptions of Great Risk of Drinking Five or More Alcoholic Drinks



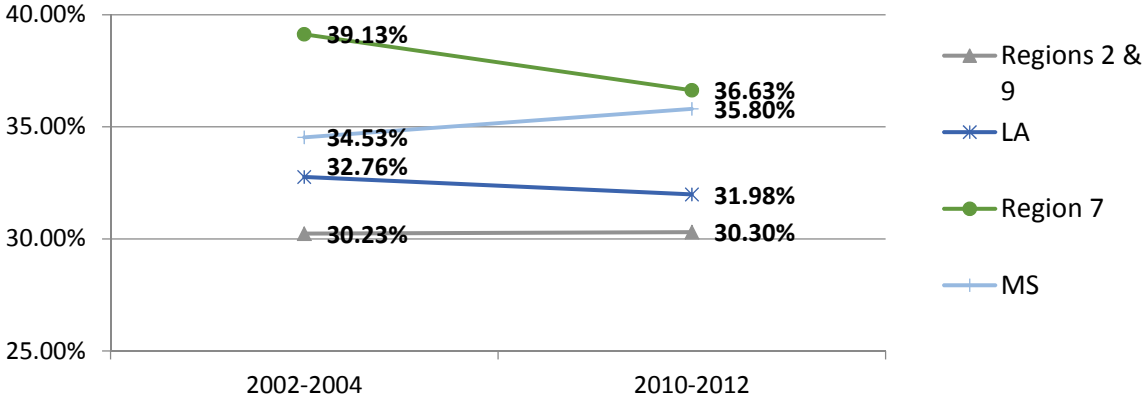
Needing but Not Receiving Treatment for Alcohol Use in the Past Year

- All of the study area regions/states have seen declines in the rates of residents needing but not receiving treatment for alcohol use from 2002-2004 to 2010-2012.
- Region 2 & 9 (St. Tammany Parish, LA) reports the highest rate, for the study area, of residents who needed but did not receive treatment for alcohol use in the past year at 5.93%; this region has, however, seen a decline in the rate from 8.60% in 2002-2004.

Tobacco Use in the Past Month

- Region 7 (Pearl River County, MS) reports the highest current rate of tobacco use in the past month, for the study area, at 36.63%; this region has, however, seen a decline in the rate from 39.13% in 2002-2004.

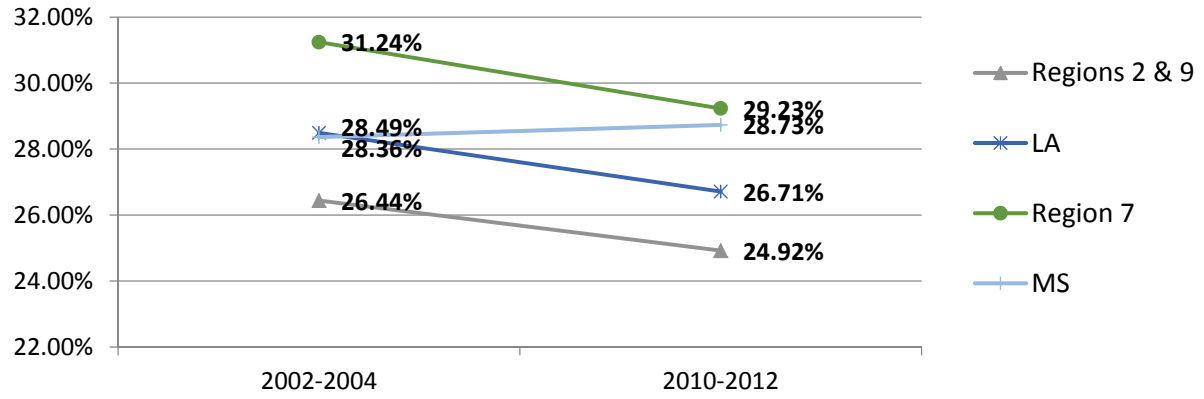
Figure 13: Tobacco Use in the Past Month



Cigarette Use in the Past Month

- Cigarette use in the past month is highest in the study area for Region 7 in the 2010-2012 analysis; it has seen a slight decline in rate over the years going from 31.24% to 29.23%.

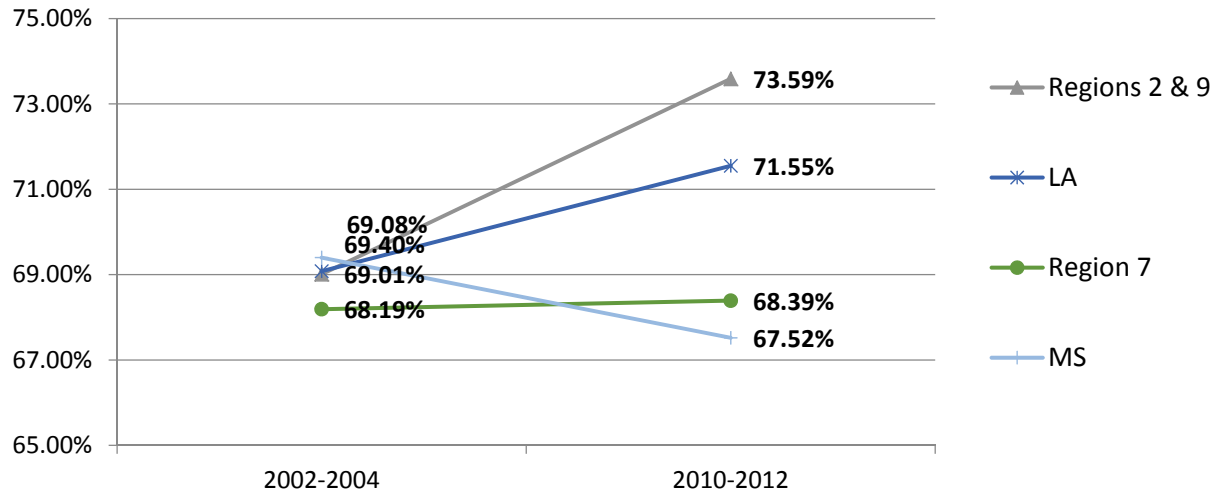
Figure 14: Cigarette Use in the Past Month



Perceptions of Great Risk of Smoking One or More Packs of Cigarettes per Day

- All of the study area regions, except for the State of Mississippi, report rises in the rate of perceptions of great risk of smoking one or more packs of cigarettes per day.

Figure 15: Perceptions of Great Risk of Smoking One or More Packs of Cigarettes per Day

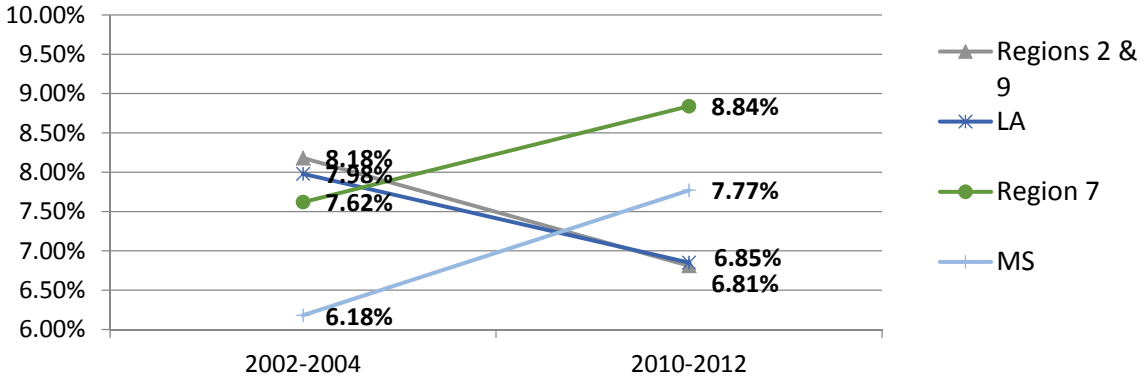


Illicit Drug Use in the Past Month

- Region 7 (Pearl River County, MS) reports the highest rate of illicit drug use in the past month with 8.84% of the population aged 12 and older participating in drug use.

- The Louisiana regions of SAMHSA report declines in rates of illicit drug use; the State of Mississippi reports rises in illicit drug use.

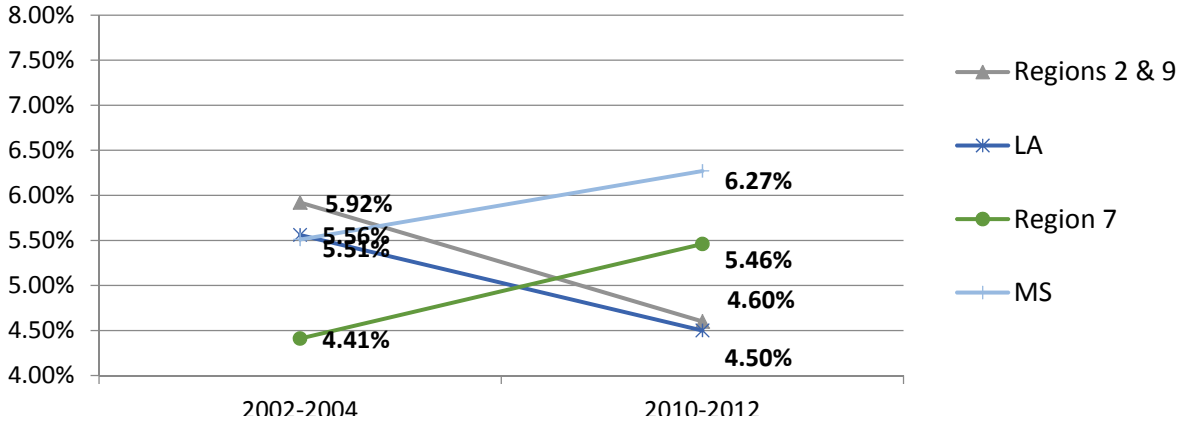
Figure 16: Illicit Drug Use in the Past Month



Marijuana Use in the Past Month

- Region 7 (Pearl River County, MS) reports the highest rate of marijuana use in the past month with 5.46% of the population aged 12 and older reporting use; this rate has been on the incline since 2002-2004 in which it was 4.41%.
- The Louisiana regions of SAMHSA report declines in rates of marijuana use; the State of Mississippi reports rises in marijuana use.

Figure 17: Marijuana Use in the Past Month

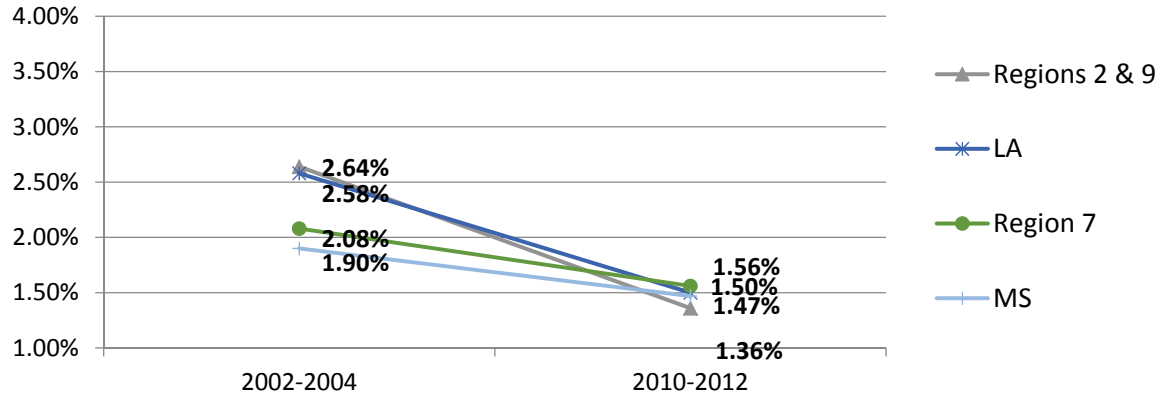


Cocaine Use in the Past Year

- Region 2 & 9 (St. Tammany Parish, LA) reports the highest rate of cocaine use in the past month with 1.56 % of the population aged 12 and older reporting use; this rate has been on the decline since 2002-2004 in which it was 2.08%.

- All of the study area regions have seen declines in the rates of cocaine use from 2002-2004 to 2010-2012.

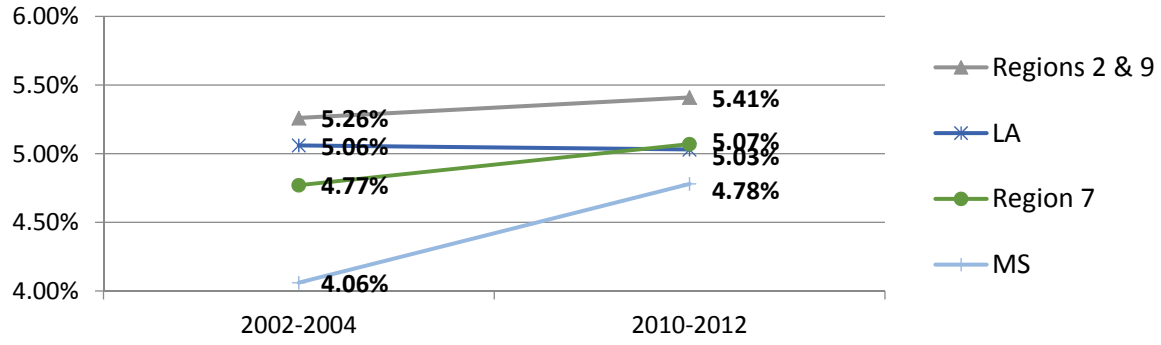
Figure 18: Cocaine Use in the Past Year



Nonmedical Use of Pain Relievers in the Past Year

- Regions 2 & 9 report the highest current rate of nonmedical use of pain relievers in the past year at 5.41% of the population aged 12 and over and have seen this rate rise since 2002-2004 when it was 5.26%.

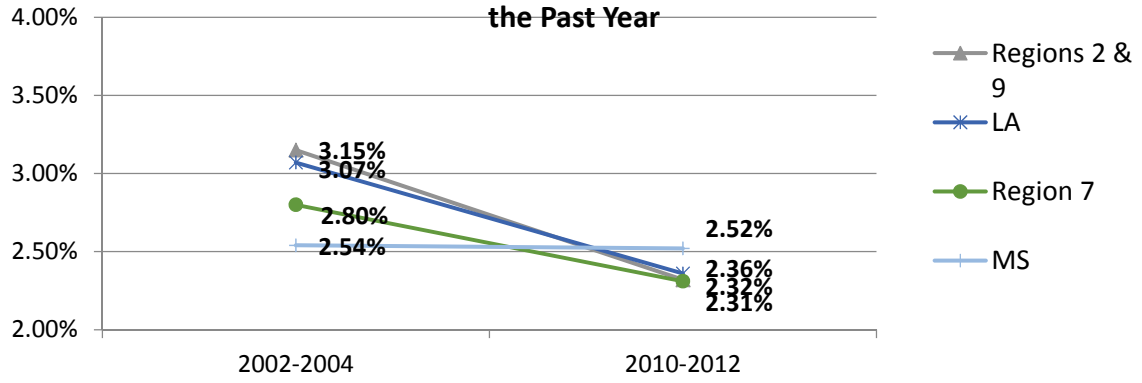
Figure 19: Nonmedical Use of Pain Relievers in the Past Year



Needing but Not Receiving Treatment for Illicit Drug Use in the Past Year

- All of the study area regions report declines in the rates of residents reporting needing but not receiving treatment for illicit drug use in the past year. Region 1 still reports the highest rate, for the study area, at 2.58% needing but not receiving treatment.

Figure 20: Needing but Not Receiving Treatment for Illicit Drug Use in the Past Year



America's Health Rankings

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

For this study, the Louisiana State report was reviewed. The following were the key findings/rankings for Louisiana:

- Louisiana Ranks:
  - ✓ 48th overall in terms of health rankings
  - ✓ 44th for smoking
  - ✓ 45th for diabetes
  - ✓ 45th in obesity
- Louisiana Strengths:
  - ✓ Low incidence of pertussis
  - ✓ High immunization coverage among teens
  - ✓ Small disparity in health status by educational attainment
- Louisiana Challenges:
  - ✓ High incidence of infectious disease
  - ✓ High prevalence of low birthweight
  - ✓ High rate of preventable hospitalizations
- Louisiana Highlights:

- ✓ In the past year, children in poverty decreased by 15 percent from 31.0 percent to 26.5 percent of children.
- ✓ In the past 2 years, physical inactivity decreased by 10 percent from 33.8 percent to 30.3 percent of adults.
- ✓ In the past 20 years, low birthweight increased by 15 percent from 9.4 percent to 10.8 percent of births. Louisiana ranks 49th for low birthweight infants.
- ✓ In the past 2 years, drug deaths decreased by 25 percent from 17.1 to 12.9 deaths per 100,000 population.
- ✓ Since 1990, infant mortality decreased by 32 percent from 11.8 to 8.2 deaths per 1,000 live births. Louisiana now ranks 47th in infant mortality among states.

Table 7. America's Health Rankings - Louisiana					
Measure	**Rank**	**Value**	**Measure**	**Rank**	**Value**
Air Pollution	26	9.2	**Infectious Disease**	48	
All Determinants	48	-0.53	**Insufficient Sleep**	34	37
All Outcomes	44	-0.273	**Lack of Health Insurance**	39	16.7
Binge Drinking	21	16.3	**Low Birthweight**	49	10.8
Cancer Deaths	47	217.4	**Median Household Income**	50	39,622
Cardiovascular Deaths	46	307.5	**Obesity**	45	33.1
Children in Poverty	44	26.5	**Obesity – Youth**		13.5
Chlamydia	47	597.9	**Occupational Fatalities**	47	8.2
Cholesterol Check	26	76.2	**Overall**	48	-0.803
Colorectal Cancer Screening	39	61.5	**Personal Income, Per Capita**	29	41,204
Dental Visit, Annual	48	56.1	**Pertussis**	1	1.6
Dentists	39	49.6	**Physical Activity**	46	67.8
Diabetes	45	11.6	**Physical Inactivity**	46	32.2
Disparity in Health Status	16	26.5	**Poor Mental Health Days**	43	4.2
Drug Deaths	27	12.9	**Poor Physical Health Days**	38	4.2
Excessive Drinking	22	17.7	**Premature Death**	45	9625
Fruits	44	1.18	**Preterm Birth**	49	15.3
Heart Attack	41	5.3	**Preventable Hospitalizations**	48	80.3
Heart Disease	40	5	**Primary Care Physicians**	20	123.7
High Blood Pressure	47	39.8	**Public Health Funding**	27	69.01
High Cholesterol	41	40.7	**Salmonella**	47	33.7
High Health Status	47	44.4	**Smoking**	44	23.5
High School Graduation	46	72	**Stroke**	45	4
Immunization - Adolescents	11	72.6	**Suicide**	12	12.5
Immunization – Children	31	69.1	**Teen Birth Rate**	44	43.1
Immunization Dtap	16	87.9	**Teeth Extractions**	48	9.6
Immunization HPV female	12	42.1	**Underemployment Rate**	23	12.7
Immunization MCV4	9	87.7	**Unemployment Rate, Annual**	15	6.2
Income Disparity	48	0.491	**Vegetables**	49	1.64
Income Disparity Ratio	1	5.68	**Violent Crime**	44	496.9
Infant Mortality	47	8.2	**Youth Smoking**		12.1

Key Stakeholder Interviews

INTRODUCTION:

Tripp Umbach conducted interviews with community leaders on behalf of the Slidell Memorial Hospital. Leaders who were targeted for interviews encompassed a wide variety of professional backgrounds including 1) Public health expertise; 2) Professionals with access to community health related data; and 3) Representatives of underserved populations. The interviews offered community leaders an opportunity to provide feedback on the needs of the community, secondary data resources, and other information relevant to the study.

This report represents a section of the overall community health needs assessment project completed by Tripp Umbach.

DATA COLLECTION:

The following qualitative data were gathered during individual interviews with 13 stakeholders in communities served by the Slidell Memorial Hospital, a 229-bed acute care hospital located in Slidell, LA. Each interview was conducted by a Tripp Umbach consultant and lasted approximately 60 minutes. All respondents were asked the same set of questions developed by Tripp Umbach and previously reviewed by a Slidell Memorial Hospital CHNA oversight committee. The purpose of these interviews was for stakeholders to identify health issues and concerns affecting residents in the communities served by Slidell Memorial Hospital, as well as ways to address those concerns.

There was a diverse representation of community-based organizations and agencies among the 13 stakeholders interviewed. Those organizations represented included:

- Acadian Ambulance
- City of Slidell
- COAST - Slidell Senior Center
- First Baptist Church
- Louisiana Office of Public Health
- Methodist Health Foundation
- NAMI
- S.A.L.T
- SMH Foundation Board
- St. Tammany EDF
- St. Tammany Outreach for the Prevention of Suicide (STOPS)
- The Good Samaritan Ministry, 910 Crossgates Blvd, Slidell, LA 70461
- Youth Service Bureau - Slidell Client Services & CASA

STAKEHOLDER RECOMMENDATIONS:

The stakeholders provided many recommendations to address health issues and concerns for residents living in communities served by Slidell Memorial Hospital. Below is a brief summary of the recommendations:

- Increase afterhours access to clinics and specialty care: Stakeholders recommended that clinics could offer additional hours during evenings and weekends to offer increased access for residents that may work during normal business hours.
- Increase collaboration between hospitals, FQHCs, and clinics: Stakeholders felt that hospital could be more connected with FQHCs and clinics in local communities through collaboration and referrals to reduce the use of emergency rooms and urgent care clinics. Stakeholders recommended that hospitals work with local FQHCs and clinics to provide access to specialty diagnostics and treatment for residents that are uninsured or Medicaid eligible. Additionally stakeholders felt that increased collaboration could mean additional funding for healthcare providers throughout the community.
- Increase information dissemination and education of residents regarding healthy options like, how to read nutrition labels, food preparation, preventive practices, prevention of STIs, etc. To do this hospitals could partner with local schools, churches, and other community based organizations.
- Integrate behavioral health services into primary care settings through co-location of behavioral health providers to decrease stigma and increase treatment options for behavioral health. Additional integration could include psychiatric consultation on an as needed basis for primary care providers to treat behavioral health issues that are not severe or persistent.
- Increase care coordination and community support for residents, including seniors, to improve treatment compliance, medication management, appropriate use of healthcare resources, and outcomes.
- Incentivize healthy choices through employers and health insurance companies. Employers could offer monetary incentives and health insurance companies could offer discounted rates for practicing health behaviors. Entities responsible for the cost of unhealthy options show be held accountable (e.g., bars, fast food restaurants, residents making unhealthy choices) through a tax, similar to the tax placed on cigarettes.
- Providers and other community based organizations should educated residents about the appropriate use of health care resources (e.g., Primary care, emergency medical care, urgent care, etc.).
- Increase the number of providers that offer services to Medicaid eligible and uninsured residents (i.e., psychiatrists, pediatricians and dental orthodontists).

PROBLEM IDENTIFICATION:

During the interview process, stakeholders discussed five overall health needs and concerns in their community. The top five health needs in order from most discussed to least discussed were:

1. Accessibility of health services
2. Social and environmental determinants of health
3. Behavioral health, including substance abuse
4. Common health concerns
5. Personal behaviors that impact health

ACCESSIBILITY OF HEALTH SERVICES:

All stakeholders representing Northshore communities articulated a need to improve the accessibility of health services (medical, dental, behavioral) in the study area. Several stakeholders acknowledged the significant investments that have been made in healthcare, including establishing FQHC Clinics and behavioral health services as well as the investment in the nearby University Medical Center. Stakeholders noted that there are several major hospitals serving the area, making medical care available for private insured residents. The discussion about accessibility of services was related most often to the cost of care, acceptance of insurance, awareness of services available, and the number and location of providers.

Stakeholders discussed a shift in the way health services are provided from the charity care model where charity care was provided in large charity hospital settings before Katrina to the community-based clinic model providing charity care to residents through a network of community based clinics. Most stakeholders felt that the community based clinic model has proven to be more efficient and accessible to residents in Northshore communities. One of the most discussed about barriers to accessing health services in Northshore communities was the awareness of residents about what services are available and where they are located. Residents are not securing health services in the proper locations because they are not aware of new clinics and services that may be available to them. The result has reportedly been an over utilization of the emergency rooms for primary care and behavioral health concerns.

Stakeholders discussed the cost of health services in relationship to health insurance, uninsured care, and poor reimbursement rates of health service providers (medical, dental

and behavioral). Many providers are not accepting patients with Medicaid insurance due to the low reimbursement rates (e.g., Primary care practices, pediatric care, psychiatric care, orthodontists, etc.). This does not include non-profit hospitals. One stakeholder noted that there was a physician that recently retired and has not been replaced who accepted many Medicaid patients. While there are FQHC clinic St. Tammany Parish (e.g., Covington, Slidell, etc.), Medicaid patients have limited options for local primary care providers in Northshore communities. Stakeholders discussed the lack of Medicaid expansion placing a strain on health resources to meet the needs of uninsured and underinsured residents. Additionally there is a population of residents that earn a moderate income and are underinsured due to unaffordable copays and high deductibles, which restricts access to ongoing preventive care. Residents that are uninsured often seek health services when an issue becomes an emergency and requires more intense and costly care, which typically yields poorer outcomes than primary and preventive care practices.

Stakeholder discussed the fragmentation of health services and the gaps in services that are available. According to stakeholders there were several health services that are not readily available in their region, specifically: outpatient Medicaid providers (dental, pediatricians, psychiatrist, etc.), pediatric neurosurgery, Pediatric cardiology, inpatient behavioral health and substance abuse services, adequate outpatient behavioral health and substance abuse services, care coordination, after-hours specialty care, HIV services, prescription assistance, Primary care (rural areas), trauma unit, endocrinology, community based supportive services for seniors. Stakeholders described disparate health resources with lower income neighborhoods containing the fewest resources. The Medicaid Waiver provides some access to care but does not cover prescription medications or specialty care. As a result, many community based clinics do not have access to specialty care. Residents may have an undiagnosed illness that they cannot afford to treat due to the cost of medications. Stakeholders discussed the lack of care coordination provided for uninsured and underinsured residents, including seniors, who are seeking care in inappropriate settings like the emergency room. Seniors have limited options for local rehabilitation if needed upon discharge from the hospital. One stakeholder mentioned the need for medication management among seniors who are prescribed multiple medications by several different doctors that may be contraindicated.

Stakeholders noted that the need for accessible healthcare among medically vulnerable populations (e.g., uninsured, low-income, Medicaid insured, etc.) has an impact on the health status of residents in a variety of ways and often leads to poorer heath out comes. Several of the noted effects are:

- Higher cost of healthcare that results from hospital readmissions and increased usage of costly emergency medical care.
- Residents delaying medical treatment and/or non-compliant due to the lack of affordable options and limited awareness of what options do exist.
- Poor outcomes in adult, maternal and pediatric care due to limited care coordination and lack of patient compliance.

SOCIAL AND ENVIRONMENTAL DETERMINANTS OF HEALTH:

More than ninety percent of stakeholders discussed the social and environmental determinants of health in Northshore communities. The most common social and environmental factors discussed by stakeholders were the lack of transportation, impact of culture, high rates of violence, lack of education, and poverty on the health of seniors, adults, children, and unborn children.

The topic of transportation was most often discussed in relationship to residents seeking health care and healthy nutrition in rural areas. Transportation was addressed as a need across all of the Greater New Orleans area, with stakeholders from Northshore communities indicating transportation was one of the greatest barriers to accessing healthcare for seniors and residents in the most rural areas like Bogalusa and Washington Parishes. Many of the health service providers exist in the areas where population is the densest (i.e., Covington and Slidell) and the more rural area of the Parish must travel to secure health services. Often residents in rural areas are not able to get to and from the health services they need. For this reason, stakeholders indicated that rural residents often delay seeking health services until the issue becomes an emergency and potential outcomes are often poor. While there is a Parish van that provides transportation, stakeholders noted that it is by appointment only and costly for the Parish to maintain. One stakeholder noted that at one time Medicaid provided funding for transportation, which is no longer provided. The lack of adequate transportation impacts health in a variety of ways by limiting the access residents have to healthy options like medical providers and grocery stores with healthy produce. Additionally, the limitations of transportation may restrict the access residents have to employment opportunities, which could be a barrier to insurance and financial stability.

New Orleans and surrounding areas, including Northshore communities, are famous for the culture, food, and drinking. Stakeholders discussed the impact that culture has on the practices, views and health of residents. Stakeholders noted that the culture of residents is close and supportive, but often centers around food and alcohol consumption. Traditional diets of

residents are reflective of culture and historically are high in fried and fatty foods. Additionally, the tourism industry is focused on the party atmosphere and encourages excessive consumption alcohol and foods that can be unhealthy. Stakeholders noted that changing behavior can be difficult particularly when it is steeped in accepted cultural practices and supported by the economy of tourism. Excessive consumption of alcohol and fried foods can cause lifestyle diseases such as cardiovascular disease, obesity, diabetes and cancer.

Hurricane Katrina facilitated worsened conditions in communities due to the displacement of residents, loss and extensive damage to property. Post-Katrina housing has been overcrowded due to extended family living arrangements due to damaged homes and an overall reduction in healthy safe living conditions. Stakeholders often reminisced about the informal support networks for child care, transportation, etc. that existed in areas where poverty is the highest. According to stakeholders, many residents practiced almost a communal sharing of resources (child care, transportation, food, money, etc.). Many residents had to move from the communities where they lived after Katrina and lost access to these informal networks.

The economy was discussed regarding the lack of opportunity many residents have, particularly in the Slidell area. According to stakeholders there is no formal industry to support a healthy economy in the Slidell area. Stakeholders addressed the high rates of poverty and the poor outcomes for residents in poverty. Discussions focused on poverty as an explanation for the high prevalence of substance abuse, low educational attainment, poor health, limited access to health services, etc. Often stakeholders pointed out that the lack of opportunity, limited employment, and low educational attainment found in communities of poverty cause residents to feel apathetic. While St. Tammany Parish is one of the more financially stable areas of the state, stakeholders noted that many residents live below the federal poverty line in the Slidell area. Stakeholders felt that the lack of education coupled with low exposure to healthy resources causes residents in poverty to be unaware of healthy options. When residents are aware of healthier choices they may perceive these options to be out of their reach e.g., healthy produce and nutrition may not be viewed as consistently attainable due to a lack of grocery stores, limited transportation, and cost.

Housing insecurity was discussed by stakeholders in relationship to the homeless population in locations like Slidell. Stakeholders indicated that residents may face one of three types of housing insecurities: 1) persistent relocation to be closer to resources (e.g., employment for parents, family/friends, etc.); 2) families that are homeless; and youth that are homeless by themselves (without adult accompaniment). Stakeholders felt that housing insecurity influences the ability for youth to secure appropriate health services (e.g., medical, dental, behavioral health) consistently, proper nutrition, etc. The health status of youth experiencing housing insecurity is often worse than youth with stable living conditions.

Food security was discussed by stakeholders related to the health of seniors and youth. Grocery stores are not often located in low income neighborhoods creating what is being called a "food desert". Youth and seniors residing in these food deserts may not have ready access to healthy nutrition due to the lack of transportation options.

Stakeholders discussed the level of health literacy among residents. Health literacy is influenced by literacy levels and access to and understanding of technology (e.g., computers). Stakeholders noted that there is a high correlation between lower educational attainment and lower level of health literacy. Stakeholders felt that the movement toward electronic medical records, the use of online applications, and internet based systems may leave some residents that do not have access to computers and/or whom may be unfamiliar with computers without access to relevant health information.

Stakeholders discussed the implications of social and environmental determinants of health as some of the following:

- Lifestyle diseases such as obesity, diabetes, cancer, hypertension, and cardiovascular disease.
- Higher rates of poor birth outcomes such as low birth weight.
- Increased behavioral health symptoms of trauma e.g., risky behaviors, suicide, anxiety, depression, violence, apathy, etc.
- Poor birth outcomes (e.g., low birth weight) and limited access to healthy options.

NEED FOR BEHAVIORAL HEALTH INCLUDING SUBSTANCE ABUSE SERVICES:

Behavioral health services and issues were discussed separate from medical or dental health services, with eighty percent of stakeholders identifying a health need related to behavioral health and/or substance abuse. Stakeholders discussed the lack of behavioral health and substance abuse resources in general and many noted that behavioral health and substance abuse needs are highest in the most rural areas and communities with the highest rates of poverty. Stakeholders felt that there is a connection between environmental factors and the prevalence of behavioral health and substance abuse. Stakeholders felt that the culture of the area and local tourist industry encourages substance abuse and identified tobacco, alcohol and marijuana as the most common substances being abused. Other substances noted were heroin and prescription pain medications. Stakeholders also felt that substance abuse is often a way for residents to self-medicate or cope with behavioral health issues including stress and serious mental illness (e.g., bipolar, schizophrenia, etc.).

> *"Katrina has had a major impact on the mental health of residents- the stress, and displacement of residents has had an impact and the response has not been adequate to meet the need." ~ First Responder*

Often communities with higher rates of poverty are also the areas with limited resources available to treat diagnoses related to behavioral health and substance abuse. This is in part due to the low reimbursement rates for behavioral health services. There is reportedly a resistance among behavioral health providers to accept Medicaid insurance and the cost of uninsured behavioral health services is unaffordable for residents who are Medicaid eligible.

Stakeholders noted that there has been a decrease in funding for behavioral health and substance abuse services which has led to limited resources. While there are inpatient beds and outpatient services available, stakeholders indicated that they are not adequate enough to meet the demand for behavioral health and substance abuse services in Northshore communities. In recent years there has been a decrease in the number of inpatient beds and crisis services have declined. Outpatient services have improved but often have lengthy waiting lists for diagnostic services as well as ongoing treatment. Suicide rates have reportedly increased in recent years in several Northshore communities.

Stakeholders noted that behavioral health and substance abuse has an impact on the health status of residents in a variety of ways and often leads to poorer heath out comes. Several of the noted effects of behavioral health and substance abuse are:

- Higher suicide rates and incarceration rates for residents with mental illness.
- Residents with a history of behavioral health and substance abuse do not always practice healthy behaviors and may be non-compliant with necessary medical treatments (e.g., HIV treatments, etc.).

COMMON HEALTH CONCERNS:

More than ninety percent of stakeholders discussed specific health concerns of residents. The most common health concerns discussed by stakeholders were obesity, diabetes, and heart disease.

1. Obesity – One half of stakeholders discussed the prevalence and cause of obesity among residents in Northshore communities. Stakeholders indicated that obesity is an issue among adults as well as a growing problem among youth. Stakeholders identified social and environmental determinants (e.g., culture, lack of awareness, limited access to

healthy nutrition, etc.) as well as personal choice and behaviors within the control of residents (e.g., choices about nutrition, exercise, etc.) as driving the high rates of obesity.

2. Diabetes – More than one-third of stakeholders discussed the prevalence and cause of diabetes as a common health issue among residents. Stakeholders identified social and environmental determinants (e.g., lack of awareness, limited access to primary care, food deserts, etc.) as well as personal choice and behaviors within the control of residents (e.g., choices about nutrition, exercise, etc.) as driving the high rates of diabetes.
3. Heart disease – More than one quarter of stakeholders discussed heart disease and cardiovascular complications as a common health concern among residents. Stakeholders identified social and environmental determinants (e.g., lack of awareness, culture, etc.) as well as personal choice and behaviors within the control of residents (e.g., smoking, exercising, etc.) as driving the high rates of heart disease.

The impact of common health issues can be poor health outcomes of a population and greater consumption of health care resources.

PERSONAL BEHAVIORS THAT IMPACT HEALTH:

Approximately two-thirds of the stakeholders interviewed discussed lifestyle choices that impact the health status and subsequent health outcomes for residents. Stakeholders noted that there are factors like smoking, lack of physical exercise, and risky behaviors that are related to the personal choices of residents and influence health outcomes. The topic of personal choice was most often discussed in relationship to obesity, the prevalence of STIs, and cancer and respiratory issues related to smoking and alcoholism. Note that these are also health concerns stakeholders felt were heavily influenced by social and environmental determinants of health. It is this coupling of social/environmental and personal choice determinants of health that present the greatest challenge to improving lifestyle related diseases like diabetes, obesity, cancer, and STIs

Stakeholders recognized that there are social determinants that drive the rate of obesity such as food deserts, lack of awareness about healthy food preparation and the inability to exercise outdoors due to a lack of safety; however, stakeholders also recognized that residents often make personal choices based on preferences for unhealthy foods and limited motivation to exercise.

At the same time that stakeholders recognized that there are social and environmental determinants of cancer and respiratory diseases like chemical run off from factories and pollution; they discussed the personal choice to continue smoking as an additional factor that facilitates low birth weight, the rates of cancer and COPD in communities where smoking rates are greatest.

While stakeholders understood the impact of social and environmental determinants like youth not learning the practices that reduce the spread of STIs like HIV in school settings; stakeholders also recognized that parents are choosing not to provide education to their children about preventing the spread of STIs and youth are making the decision to practice risky behaviors.

Survey of Vulnerable Populations

Tripp Umbach worked closely with the CHNA oversight committee to ensure that community members, including under-represented residents, were included in the needs assessment through a survey process.

DATA COLLECTION:

Vulnerable populations were identified by the CHNA oversight committee and through stakeholder interviews. Vulnerable populations targeted by the surveys were: seniors, low-income (including families), uninsured, Latino, chronically ill, had a mental health history, homeless, literacy challenged, limited English speaking, women of child bearing age, diabetic, and residents with special needs.

A total of 115 surveys were collected in the Slidell Memorial Hospital service area which provides a +/- 2.89 confidence interval for a 95% confidence level. Tripp Umbach worked with the oversight committee to design a 32 question health status survey. The survey was administered by community-based organizations providing services to vulnerable populations in the hospital service area.

- Community-based organizations were trained to administer the survey using hand-distribution.
- Surveys were administered onsite and securely mailed to Tripp Umbach for tabulation and analysis.
- Surveys were analyzed using SPSS software.

Limitations of Survey Collection:

There are several inherent limitations to using a hand-distribution methodology that targeted medically vulnerable and at-risk populations. Often, the demographic characteristics of populations that are considered vulnerable populations are not the same as the demographic characteristics of a general population. For example, vulnerable populations, by nature, may have significantly less income than a general population. For this reason the findings of this survey are not relevant to the general population of the hospital service area. Additionally, hand-distribution is limited by the locations where surveys are administered. In this case Tripp Umbach asked CBOs to self-select into the study and as a result there are several populations that have greater representation in raw data (i.e., low-income, women, etc.). These limitations were unavoidable when surveying low-income residents about health needs in their local communities.

Demographics:

Survey respondents were asked to provide basic anonymous demographic data.

Table 8: Survey Responses – Self-Reported Age of Respondent

Age	Respondents (%)
18-24	21.7%
25-34	35.7%
35-44	15.7%
45-54	9.6%
55-64	12.2%
65-74	2.6%
75-84	2.6%
85+	21.7%

- Of the surveys gathered: 90.4% were female, 9.6% were male
- The majority of the survey respondents reported their race as White or Caucasian (63.6%), the next largest racial group was Black or African American (23.4%), and third largest was more than one race (4.7%).

Table 9: Survey Responses – Self-Reported Annual Income of Respondents

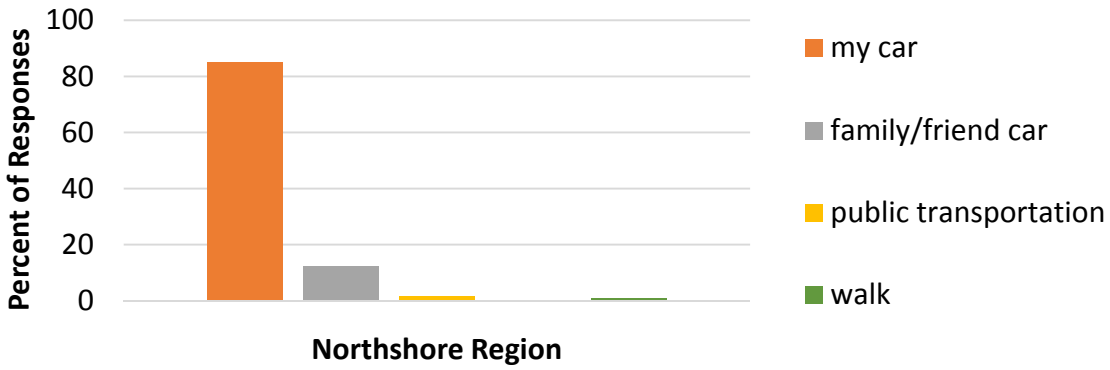
Income	Respondents (%)
< $10k	21.5%
$10-19,999	13.1%
$20-29,999	14.0%
$30-39,999	12.1%
$40-49,999	3.7%
$50-59,999	5.6%
$60-69,999	2.8%
$70-79,999	.9%
$80-99,999	2.8%
$100-149,999	1.9%

- ✓ The household income levels with the most responses were < $10,000 (21.5%) and $20,000 - $29,999 (14.0%)
- ✓ 48.6% of respondents reported less than $29,999 annual household income.

Healthcare:

- ✓ The most popular place for residents to seek care is a doctor's office (68.8%), with the urgent care being the second most popular (8.9%), ER third (8.0%), and free/reduced fourth (7.1%).
- ✓ The most common forms of health insurance carried by respondents was Medicaid (38.6%), private/commercial (29.8%), and No Insurance (15.8%).
- ✓ The most common reason why individuals indicated that they do not have health insurance is because they can't afford it (73.3%).
- ✓ 1/5 of respondents (20%) could not see a doctor in the last 12 because of cost; compared to the state (18.9%).
- ✓ Most respondents had been examined by a physician within the last 12 months at least once (66.1%).
- ✓ 16.5% respondents reported not taking medications as prescribed in the last 12 months due to cost.

Figure 21: Methods of Regular Transportation



- 15.1% of survey respondents indicated that their primary form of transportation is some method other than their own car.

Table 10: Survey Responses Related to HIV/AIDS Testing

Ever Been Tested for HIV	Northshore	LA	U.S.
Yes	55.9%	43.5%	35.2%
No	44.1%	56.5%	64.8%

- The Northshore reports a higher rate of HIV testing (55.9%) than the state (43.5%) or the U.S. (35.2%).

Health Services:

Table 11: Survey Responses – Health Services Received During the Previous 12 Month Period

Test Received	SELA Region	Northshore Region
Blood test	52.3%	42.6%
Check up	45.8%	47%
Cholesterol test	31.5%	17.4%
Flu shot	31.1%	29.6%
Urinalysis	23%	27%

- ✓ Respondents from the Northshore Region report similar testing rates as those across the SELA Region.
- Most respondents did not prefer to receive health services in a language other than English.

Table 12: Survey Responses – Perceptions about Health Service Availability

Northshore	Available to me	Available to others	Not available	NA*
Dental services	80.4%	8.8%	6.9%	3.9%
Vision services	77.2%	10.9%	7.9%	4.0%
Affordable, safe, and healthy housing	68.3%	8.9%	6.9%	15.8%
Healthy foods	26.8%	6.2%	4.1%	62.9%
Cancer screening	80.4%	8.8%	6.9%	3.9%

**NA = Not applicable*

- ✓ At least 1 in 10 respondents indicated they did not have access to the following at all or the services is available to others but not them: Primary care (12.3%), Medical specialist (13%), Pediatric & adolescent health (10.8%).
- ✓ Most respondents indicated that they have access to the following services: services for 60+, substance abuse services, women's health, mental health service, HIV services, safe exercise, healthy foods, transportation, surgical, emergency medical, employment assistance, cancer screening, cancer treatment.

Table 13: Survey Responses – Preferences for Receiving Information about Healthcare

Preferred Method	Respondents (%)
Newspaper	26.4%
TV	33.0%
Internet	33.1%
Word of Mouth	61.0%
Radio	12.4%
Library	3.7%
Clinics	18.8%
Faith/Religious Organizations	20.3%
Call 2-1-1	3.9%
Other	5.4%

- ✓ Respondents reported preferring to receive information by word of mouth most often.

Common Health Issues:

Table14: Survey Responses – Health Issues Respondents Reported Ever Diagnosed with

Ever Diagnosed with	SELA Region	Northshore Region	LA*	U.S.*
High blood pressure	44.8%	28.8%	39.9%	31.4%
High blood cholesterol	30%	15.3%	--	--
Heart attack	6.2%	.9%	5.3%	4.3%
Asthma	13.2%	18.3%	5.3%	4.3%
Still have asthma	8.8%	8.4%	--	--
COPD, emphysema or chronic bronchitis	4.2%	4.6%	7.5%	6.5%
Arthritis/rheumatoid, gout, lupus, or fibromyalgia	27.8%	18.9%	26.4%	25.3%
Depressive disorder	21.5%	25.5%	18.7%	18.7%
Pre-diabetes or borderline diabetes	18.6%	12.8%	11.6%	9.7%
Diabetes	16%	8.6%	10.3%	9.7%
Skin cancer	2.8%	1.9%	5%	6%
Other types of cancer (Breast-20.5%)	4.4%	6.7%	6.6%	6.7%

Receiving mental health treatment/medication	21.4%	21.4%	--	--

** Source: CDC*

- Survey respondents from the Northshore Region self-reported lower diagnosis rates for many of the measures than the SELA region, the state and the nation with few exceptions (i.e., asthma, mental health, and cancer).

When asked to report health conditions that they had ever been diagnosed with by a health professional, survey respondent from the Northshore Region reported:

- Higher diagnosis rates than the SELA Region, the state and the nation for asthma (18.3% vs. SELA- 13.2%, LA- 5.3%, and U.S.- 4.3%); depressive disorder (25.5% vs. SELA- 21.5%, LA- 18.7%, and U.S.- 18.7%); and other types of cancer-breast cancer was the most diagnosed (6.7% vs. SELA- 4.4%, LA- 6.6%, and U.S.- 6.7%).
- More than one in five (21.4%) survey respondents indicated they have received mental health treatment or medication at some point in their lives.

Table 15: Survey Responses – Top Health Concerns Reported

Health Concern	SELA Region	Northshore Region
Diabetes	50.8%	37.7%
High Blood Pressure	49.9%	34.9%
Drugs and Alcohol	47.7%	51.9%
Cancer	42.1%	38.7%
Heart disease	38.5%	23.6%

✓ When asked to identify five of the top health concerns in their communities; there was a great deal of agreement between the two regions. Several of the additional choices that were not as popular were: adolescent health, asthma, family planning/birth control, flood related health concerns (like mold), hepatitis infections, HIV, maternal and child health, pollution (e.g., air quality, garbage), sexually transmitted diseases, stroke, teen pregnancy, tobacco use, violence or injury, other, and don't know.

Lifestyle:

Table 16: Survey Responses – Average Body Mass Index of Survey Respondents

Weight & BMI	SELA Region	Northshore Region	Avg. Female (5'4")*	Avg. Male (5'9")*
BMI**	29.38	29.21	26.5	26.6

** Source: CDC*

*** Survey Respondents were asked to report their weight and height, from which the BMI calculation was possible.*

- ✓ Respondents in both regions show higher weight and BMI than national and state averages regardless of gender.
- ✓ Most respondents reported having access to fresh fruits and vegetables (89.4%).

Table 17: Survey Responses – Self-Reported Smoking Rates

Smoking	SELA Region	Northshore Region	LA*	U.S.*
Everyday	15.5%	8.8%	19.3%	15.4%
Some days	8.1%	6.1%	6.4%	5.7%
Not at all	74.7%	82.5%	--	--

**Behavioral Risk Factor Surveillance System*

- ✓ Self-reported smoking rates are lower in the Northshore Region than is average for the state or the nation.

Table 18: Survey Responses – Self-Reported Physical Activity Rates

Physical Activities	SELA Region	Northshore Region	U.S.*
Yes	57.3%	72.6%	74.7%
No	42.7%	27.4%	25.3%

**Behavioral Risk Factor Surveillance System*

- ✓ Respondents in both the SELA and Northshore regions report lower rates of physical activity than those reported for the nation.

Conclusions and Recommended Next Steps

The community needs identified through the Slidell Memorial Hospital CHNA process are not all related to the provision of traditional medical services provided by medical centers. However, the top needs identified in this assessment do "translate" into a wide variety of health-related issues that may ultimately require hospital services. Each health need identified has an impact on population health outcomes and ultimately the cost of healthcare in the region. For example: unmet behavioral health and substance abuse needs lead to increased use of emergency health services, increased death rates due to suicide, and higher consumption of other human service resources (e.g., the penal system).

Slidell Memorial Hospital, working closely with community partners, understands that the CHNA document is only a first step in an ongoing process. It is vital that ongoing communication and a strategic process follow the assessment – with a clear focus on addressing health priorities for the most vulnerable residents in the hospital service area.

The hospital service area contains affluent populations and populations with higher socio-economic needs (e.g., low-income, residents with a behavioral health history, unemployed, uninsured, homeless, seniors, etc.); which presents a unique challenge for hospital leadership when planning to meet the needs of all residents in the study area. While St. Tammany Parish is one of the most affluent parishes in the state of Louisiana; there is evidence of health needs, particularly related to behavioral health and low income populations. With one of the lowest FQHC ratios and an increase in uninsured residents, it will be important to continue to strive to address the primary care needs of the under/uninsured residents in St. Tammany Parish in a way that take into consideration the size of the parish, the rural nature of the region, and the lack of transportation. Pearl River, MS shows the poorest outcomes across many of the indicators included in this study. Providing access to health services for residents that are under/uninsured will have the greatest impact on the health of residents in Pearl River, MS. It is important to expand existing partnerships and build additional partnerships with multiple community organizations when developing strategies to address the top identified needs. Implementation strategies will need to consider the higher need areas in the study area and address the multiple barriers to healthcare. It will be necessary to review evidence based practices prior to planning to address any of the needs identified in this assessment due to the complex interaction of the underlying factors at work driving the need in local communities.

Tripp Umbach recommends the following actions be taken by the hospital sponsors in close partnership with community organizations over the next five months.

Recommended Action Steps:

- ❑ Widely communicate the results of the CHNA document to Slidell Memorial Hospital staff, providers, leadership and boards.

- ❑ Review the CHNA findings with a decision making body (e.g., a Board of Directors) for approval.

- ❑ Make the CHNA widely available to community residents, as well as through multiple outlets such as: the hospital website, stakeholders, neighborhood associations, and community-based organizations.

- ❑ Review relevant evidence-based practices that the community has the capacity to implement.

- ❑ Develop "Working Groups" to focus on specific strategies to address the top needs identified in the CHNA. The working groups should meet for a period of four to six weeks to review evidence-based practices and develop action plans for each health priority which should include the following:

    - ✓ Objectives
    - ✓ Anticipated impact
    - ✓ Target population
    - ✓ Planned action steps
    - ✓ Planned resource commitment
    - ✓ Collaborating organizations
    - ✓ Evaluation methods and metrics
    - ✓ Annual progress