

**Using Community Health and Clinic Capacity Assessments to Determine and Prioritize Health Needs in Gulf Coast Communities Affected by the Deepwater Horizon Oil Spill**

Samantha Francois, PhD, MS; Lauren Czaplicki, MPH; Lisa Gentry, LMSW, MPH;  
Lisanne Brown, PhD, MPH  
The Louisiana Public Health Institute  
1515 Poydras St., Suite 1200, New Orleans, Louisiana 70112

**ABSTRACT 299971:**

The Primary Care Capacity Project (PCCP) of the Gulf Region Health Outreach Program aims to expand access to integrated high quality, sustainable, community-based primary care with linkages to specialty mental and behavioral health, and environmental and occupational health services in four Gulf States following the Deepwater Horizon Oil Spill. This paper presents findings from community and clinic assessments in Gulf Coast counties and parishes impacted by the oil spill and how these findings informed technical assistance and funding to Federally Qualified Health Centers (FQHCs) and the communities they serve. This process included community and clinic assessments. The community health assessments included existing and data and data from community stakeholders on demographics, health determinants, and health status. Existing data were gathered from sources including the U.S. 2010 Census, Vital Statistics, and the Center for Disease Control and Prevention's Behavioral Risk Factor Surveillance System and Gulf State Population Survey. State, county, and sub-county level data were gathered for 17 Gulf coast counties. These data were summarized and analyzed to create community profiles for each of the counties to characterize their demographic profile, health status, healthcare access, social environment, and oil spill impact. These profiles were then used to facilitate a community prioritization process with county stakeholders. Stakeholders representing multiple sectors of the community participated in focus groups and a group consensus building activity to determine the health priorities for their counties. Concurrent to the community assessment, clinic assessments were conducted with FQHCs identified through the Health Resources and Services Administration Data Warehouse in 16 of the 17 counties. The clinic assessment was conducted with FQHC administrative staff and clinic staff to measure clinic capacity and needs.

Data gathered from the community and clinic assessments suggest that mental health and chronic illness, such as diabetes, hypertension, and heart disease are health priorities in the Gulf Region. Primary care and mental health care provider shortages were "access to care" priorities as evidenced by both the community and clinic assessments. Also, transportation and proximity to primary care facilities were access to care priorities. These findings helped to inform funding and technical assistance to the FQHCs located in Gulf Coast counties. The assessment processes and how the data and information gathered through them can translate to preparedness, response, and recovery action planning and decision making following oil spills or other natural or man-made disasters.

**INTRODUCTION:**

The Gulf Region Health Outreach Program (GRHOP) is a series of four integrated, five-year projects designed to expand capacity for and access to high quality, sustainable, community-based healthcare services, including primary care, behavioral health and mental health care, and environmental medicine in Gulf Coast communities in Louisiana, Mississippi, Alabama and the Florida Panhandle. GRHOP was developed jointly by British Petroleum (BP) attorneys and counsel representing certain plaintiffs in the Deepwater Horizon litigation in the U.S. District Court for the Eastern District of Louisiana in New Orleans. The program is supervised by the Court and is funded with \$105 million from the BP Deepwater Horizon Medical Benefits Class Action Settlement Agreement. The target beneficiaries of GRHOP are residents, especially the uninsured and medically underserved, of 17 coastal counties and parishes in Alabama (Mobile and Baldwin Counties), Florida (Escambia, Santa Rosa, Walton, Okaloosa, and Bay Counties), Louisiana (Orleans, Jefferson, St. Bernard, Plaquemines, Lafourche, Terrebonne, and Cameron Parishes) and Mississippi (Hancock, Harrison, and Jackson Counties).

The Primary Care Capacity Project (PCCP), one of four integrated projects that make up the GRHOP<sup>1</sup>, aims to expand access to integrated high quality, sustainable, community-based primary care with linkages to specialty mental and behavioral health, and environmental and occupational health services in coastal counties and parishes in the four Gulf States most affected by the Deepwater Horizon oil spill. To achieve this purpose, the PCCP established a regional health partnership across coastal counties in the four states that aims to improve the capacity and infrastructure for delivering quality health care to the residents of this region. The five-year investment will result in greater prospect for sustainable community health centers with expanded capacity and a regional health information infrastructure to support them into the future.

**Overview of Assessment Activities:**

One objective of PCCP is to conduct a comprehensive regional community health assessment to identify priority needs of these communities and inform subsequent funding of healthcare organizations and community-based organizations in the region. The specific goals of the Community Health Assessment include identifying community health assets, needs, and challenges across the region; current capacity and gaps in the region's health care delivery system; and key community health issues and concerns of residents regarding health and well-being. To meet these goals LPHI initiated and engaged in two major assessment activities during the first two years of the program: a series of primary care clinic capacity assessments, and a comprehensive regional community health assessment for each of the four states in the GRHOP footprint. Additionally, the assessment work of PCCP is relevant to future preparedness and response to natural and technological or man-made disasters, such as significant oil spills. This work serves as a baseline of community health which can be used to compare pre- and post-incident health impacts from future events.

---

<sup>1</sup> Documents describing the remaining projects can be found at <http://www.deepwaterhorizonsettlements.com/Medical/SettlementAgreement.aspx>

**Primary Care Clinic Capacity Assessment:**

The Primary Care Clinic Capacity Assessments were conducted to gather information regarding health delivery system characteristics of clinics, such as number and location of primary care and behavioral health clinics, type of health care professionals at each location, inventory of available health services, hours of operation, linkages to other social services, and information technology capacity. The assessment tool used was informed by National Center for Quality Assurance Patient Centered Medical Home standards and best practices. Other GRHOP partners also reviewed and informed the final version of the tool. To date, clinic capacity assessments were completed with all FQHC and FQHC Look-alike<sup>2</sup> clinic operators in the Mississippi, Alabama, and Florida counties, and six clinic operators in six of the Louisiana parishes.

**Comprehensive Regional Community Health Assessment:**

The Comprehensive Regional Community Health Assessment included 1) a review of existing data sources related to health and quality of life factors and 2) a facilitated key informant Community Prioritization Meeting to gather information from community members to validate, inform, and prioritize findings from the data review. The comprehensive review of existing data sources included analyses of population and demographic trends, existing health outcomes and disparities data, community health care needs, environmental and occupational hazards, and healthcare system capacity. Based on the priorities identified during the three Community Prioritization Meetings, additional health and quality of life factors were included in the Comprehensive Regional Community Health Assessment reports, such as data related to veteran and military communities and data related to health disparities by ethnicity when available. The data presented here come from the Comprehensive Regional Community Health Assessment process. This article presents data and findings from the comprehensive quantitative data analysis and the qualitative data collection from key informants as well as findings from the clinic capacity assessment.

**METHODS:****Quantitative Data Analysis: Community Health Status:**

The comprehensive review of existing data sources included an analysis of state, county and sub-county level data (where available) to characterize demographic, health and quality of life factors. For the existing data review, the PCCP assessment team gathered and analyzed data for each of the 17 parishes and counties and for each state as a whole in order to obtain a baseline assessment of demographics, health status, health care access and barriers to care in each of the parishes/counties and relative to the state.

Factors for which data were gathered and analyzed were chosen based on best practices put forth by the National Association of County and City Health Officials' *Mobilizing for Action*

---

<sup>2</sup> FQHC Look-Alike health centers do not receive grants under Section 330 but are determined by the Secretary of the Department of Health and Human Services (HHS) to meet the requirements for receiving a grant based on the Health Resources and Services Administration recommendations.

*through Planning and Partnership* model (NACCHO, 2013), the Catholic Health Association's assessment and community benefit planning (Catholic Health Association, 2013), and the Association for Community Health Improvement's (ACHI) Community Health Assessment Toolkit (ACHI, 2013). Additionally, measures of health status and quality of life chosen for this assessment were informed by and aligned with the range of determinants of health (healthypeople.gov, Commission on Social Determinants of Health, 2008). These factors then went through several rounds of review by GRHOP partners and community stakeholders to arrive at the final list of 105 factors.

### **Qualitative Data Collection and Analysis: Community Prioritization Meeting:**

Community priority-setting meetings were held with key informants representing all eligible counties in Mississippi, Alabama, Florida, and four eligible parishes in Louisiana to collect information from community members to validate and prioritize findings from the Rapid Community Health Needs Assessment data review<sup>3</sup>. Key informants were comprised of representatives from state, regional and local community organizations and nonprofits, as well as local leaders from the health, education, and government sectors. During the meetings, key informants were split into breakout groups by county for a facilitated discussion on community health needs and barriers to care. The top ten community health needs and barriers to care were identified by each group. The last part of the meeting was a community prioritization process and a description of next steps. Using electronic audience response system polling, key informants prioritized community needs by voting first for their top five needs, and then from the top five, they voted for their top three needs. Key informants then voted on their top five barriers to care. The priority community health needs and barriers identified by key informants are included in the findings.

### **Primary Care Clinic Capacity Assessment:**

Primary care clinic capacity assessments (referred to from here on as 'clinic assessments') were conducted with key staff members at the organizational level of the FQHCs and Lookalikes in the 17 counties and parishes including clinic chief executive officers, chief information officers, chief operating officers, medical directors, data managers, service providers and billing representatives. The clinic assessment was administered in-person with clinic staff to gauge the current operating state of FQHCs along the Gulf Coast. Responses gathered during the assessment were validated by the clinic staff following data cleaning. The 146-item assessment included questions in the following domains: operational and financial profile, workforce capacity and access to care, pharmacy, health information technology, population management, occupational/environmental health, transitions of care, mental/behavioral health integration, emergency preparedness, and community health and wellness. The information gathered through the assessment provided baseline data that would inform enhancements to the FQHCs through funding, technical assistance, learning collaboratives, and peer learning activities.

---

<sup>3</sup> The four parishes were Terrebonne, Lafourche, St. Bernard and Plaquemines. Community meetings were not held in Orleans and Jefferson Parishes due to the fact that specific communities in these parishes were named in the settlement.

**RESULTS:**

The first section of findings includes quantitative data for factors that emerged as health and health care needs and barriers during the community prioritization meetings. Thus, only a subset of the 105 factors is presented. These data are organized by 1) Who lives in the county/parish, 2) What influences health in the county/parish, and 3) What is the health status of the county/parish? The second section presents data from the clinic capacity assessment.

Only results for the Louisiana parishes are presented here due to space limitations and because findings were similar across the coastal parishes and counties in all four states. Detailed findings for Mississippi, Alabama, and Florida counties are available in reports found at the followings website: <http://lphi.org/home2/section/358-360/reports>.

**Community Assessment Findings:*****Who lives in the parishes?***

The majority of residents in six of the Louisiana parishes are white, with the exception of Orleans, whose self-identified white population is 33% (see Table 1) (US Census, 2010). The largest racial minority population in the six parishes is black. Jefferson Parish has the largest Hispanic population at 12%.

Table 1. Louisiana Parish Populations

Parish	Total Population	% White	% Black	% Other*	% Hispanic
Cameron	6,839	96	2	2	2
Jefferson	432,552	63	26	11	12
Lafourche	96,318	79	13	7	4
Orleans	343,829	33	60	7	5
Plaquemines	23,042	71	21	9	5
St. Bernard	35,897	74	18	8	9
Terrebonne	111,893	70	19	11	4

\*Other includes Asian, American Indian and Alaskan Native, two or more races, and other race categories

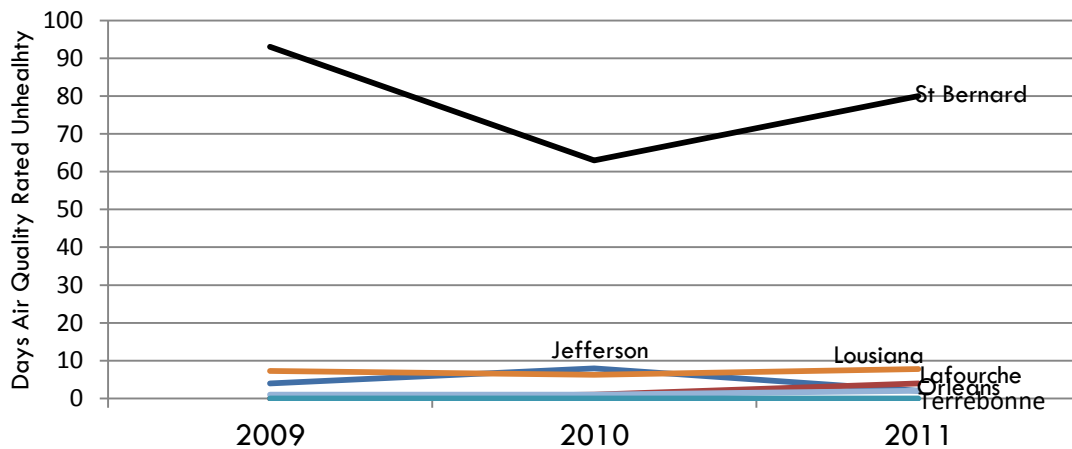
***What influences health in the parishes?***

Social, economic, and environmental factors can influence the health of a community's residents (Evans, Barer, Marmor, 1994). Low socioeconomic status, unemployment, and low educational attainment impact a variety of health behaviors, lifestyle choices, access to health care, and access to health information among individuals (Wilkinson & Marmot, 2003). Between 12% and 29% of the residents across the seven Louisiana Gulf Coast parishes are below the poverty threshold compared to 18% for the state and 14% nationally (American Community Survey (ACS), 2011). This range increases to between 12% and 42% for children and adolescents living in these parishes, compared to 26% for the state of Louisiana and 20% in the nation. Notably, over 45% of racial and ethnic minorities in some census tracts in each of the Louisiana parishes are below the poverty threshold.

A considerable proportion of residents across the parishes also have low educational attainment, defined here as residents over age 25 who do not have a high school diploma. Between 16% and 25% the population in the seven parishes do not have a high school diploma, exceeding both the state and national averages (18% and 14% respectively) (ACS, 2011). This increases to over 40% for racial and ethnic minorities in some census tracts in each parish. Overall, the percent of unemployed working age residents across the parishes is relatively low, ranging from 2% to 14%, compared to 7% in the state and 9% in the nation (ACS, 2011; Bureau of Labor Statistics, 2011). However, the percent of unemployed residents increases to over 30% for racial and ethnic minorities in some census tracts in each of the parishes (ACS, 2011).

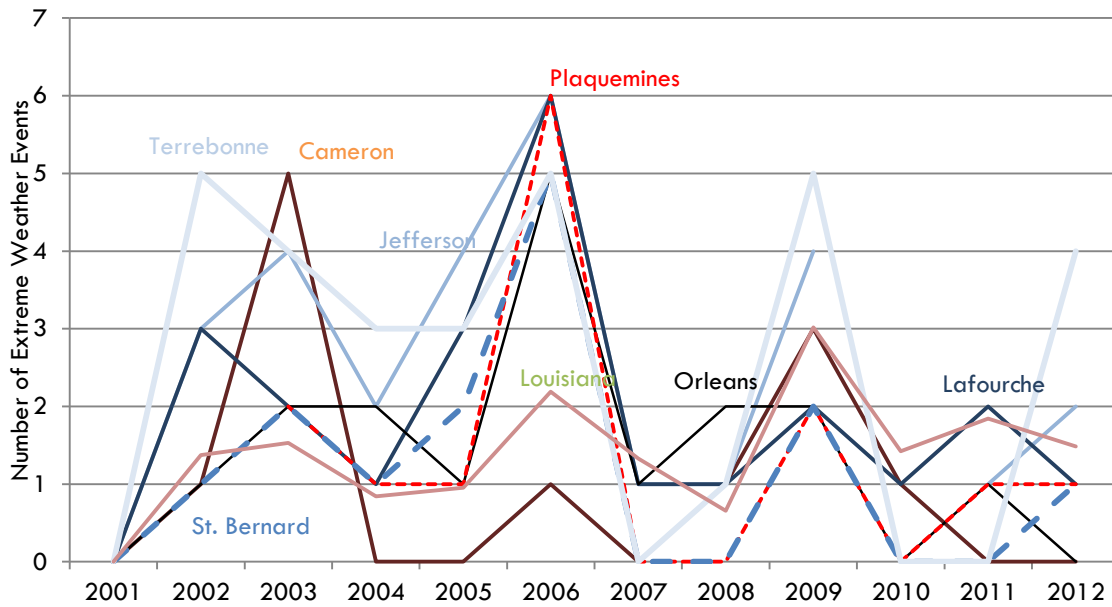
**Natural environment.** Another determinant of health examined in the community assessment was natural environment. Natural environment may influence the health of Gulf Coast residents, particularly their ability to prepare for and recover from disasters, whether natural or human-caused. The assessment examined air quality and extreme weather events (e.g. hurricanes and flooding). In Jefferson, Lafourche, Terrebonne, and Orleans Parishes, the number of days that air quality was rated unhealthy, very unhealthy, hazardous, and unhealthy for sensitive groups like the elderly, children, and those with lung disease remained under 10 days between 2009 and 2011 (see Figure 1). In St. Bernard Parish, the number of days air quality was rated unhealthy varied between 2009 and 2011 but overall is substantially higher than the state average (Environmental Protection Agency, 2009-2011).

Figure 1. Unhealthy Air Quality in Louisiana Parishes



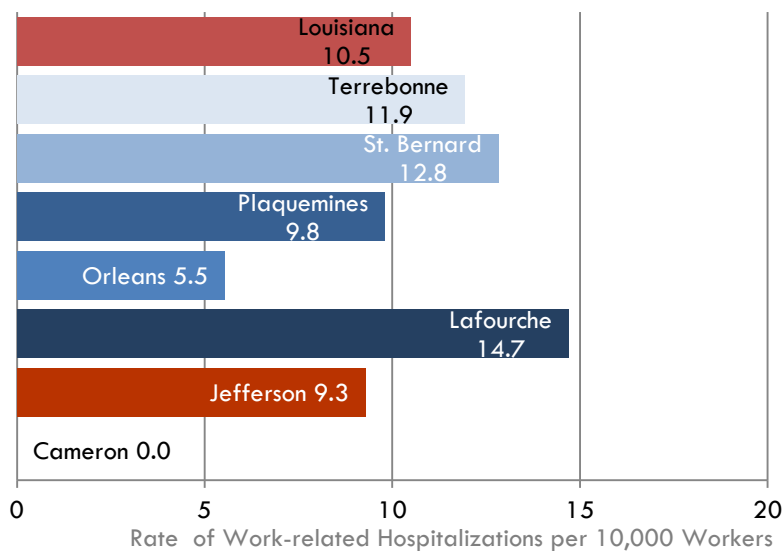
Over the past decade, the incidence of extreme weather events such as hurricanes, flooding, and severe storms resulting in a minimum of \$50,000 in property damage have fluctuated in all seven parishes (see Figure 2) (Spatial Hazard Events and Losses Database, 2001-2012).

Figure 2. Extreme Weather Events from 2001 to 2012



**Occupational Hazards and Safety.** The community assessment also examined the impact of occupational hazards and safety for Gulf Coast residents. Nearly half of the residents of working age (16 years and older) in all seven Louisiana parishes work in occupations at high risk for injury or fatality, e.g., fishing and energy extraction (Bureau of Labor Statistics Census of Fatal Occupational Injuries, 2010). Figure 3 shows the rate of injuries and illnesses associated with occupational hazards and safety based on the number of hospital visits covered by workers' compensation claims<sup>4</sup>. Compared to the state, St. Bernard and Lafourche Parishes each have a higher rate of work-related hospitalizations among employed residents (Louisiana Hospital Inpatient Discharge Data, 2008-2010). Workers are hospitalized for work-related injury or illness at a slightly higher rate in Terrebonne Parish compared to the state; while a slightly lower rate of workers are hospitalized for work-related injury or illness in Plaquemines and Jefferson Parishes. In Orleans Parish the rate of employed residents were hospitalized due to occupational injury or illness is half that of the state. Notably, none of the employed residents in Cameron Parish were hospitalized as a result of a work related injury.

Figure 3. Rate of Work-Related Hospitalization in Louisiana Parishes

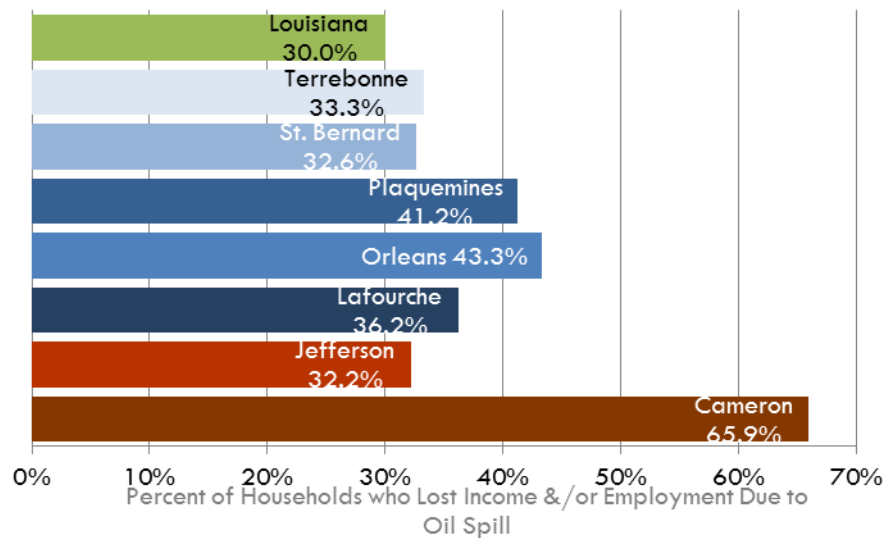


<sup>4</sup> The hospital inpatient discharge data source does not identify if the injury or illness was due to safety hazards or health hazards in the work place.



**Oil Spill Impact.** In addition to risk for work-related injury, job and/or income loss due to the Deepwater Horizon Oil Spill was also examined as an important occupational hazard for Louisiana Parish residents. In all seven parishes, the percentage of residents who experienced a loss in income or employment was higher than in the state as a whole (Gulf States Population Survey (see Figure 4) (GSPS, 2011). In Cameron Parish, 66% of residents reported income or job loss as a result of the spill followed by Orleans and Plaquemines Parishes with 43% and 41% respectively. Cameron Parish residents' higher prevalence of income or job loss due to the spill might have been due to a higher percentage of Cameron parish working residents employed in fishing and oil and gas extraction industries prior to the spill<sup>5</sup> (GSPS, 2011).

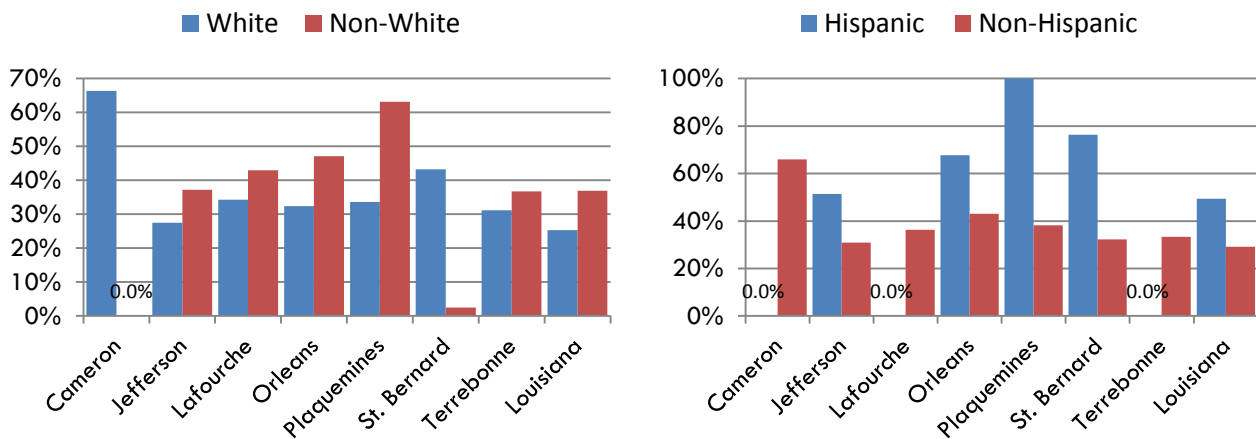
Figure 4. Income and/or Job Loss Due to Deepwater Horizon Oil Spill



<sup>5</sup> Fourteen percent of Cameron resident were employed by the fishing industry prior to the spill compared to 7 percent of Plaquemines residents and less than 1 percent of Orleans residents. Similarly, 10 percent of Cameron residents were employed by the oil and gas extraction industry prior to the spill compared to 7 percent of Plaquemines residents and 2 % of Orleans residents.

Figure 5 illustrates that income or job loss due to the spill disproportionately impacted racial and ethnic minorities in the parishes. With the exception of Cameron Parish, a higher percentage of Non-White<sup>6</sup> residents in the remaining parishes experience job and/or income loss as a result of the oil spill compared to White residents (GSPS, 2010, 2011). In Jefferson, Orleans, Plaquemines, and St. Bernard Parishes, a higher percentage of Hispanic residents lost a job and/or income due to the oil spill compared to Non-Hispanic residents.

Figure 5. Income and/or Job Loss Due to Deepwater Horizon Oil Spill by Race/Ethnicity



<sup>6</sup> Non-white includes Blacks, Asians, and those reporting their race as “other” (GSPS, 2011).

**Access to Health Care.** The ability to access health care is a key component to communities' health status and ability to respond to and recover from disasters. Access to care factors examined here are health insurance coverage and mental health coverage.

Notably, nearly a quarter of the adult residents in several of the Louisiana parishes are uninsured (see Figure 6) (ACS, 2011). Cameron Parish has a slightly higher percentage of uninsured adults compared to the state and has the highest percent of all the parishes. In the remaining parishes, the percentage of uninsured adults is similar to the state, with the exception of St. Bernard and Plaquemines Parishes where the percent of uninsured adults is lower than the state and the other parishes.

Figure 6. Uninsured Adults in Louisiana Parishes

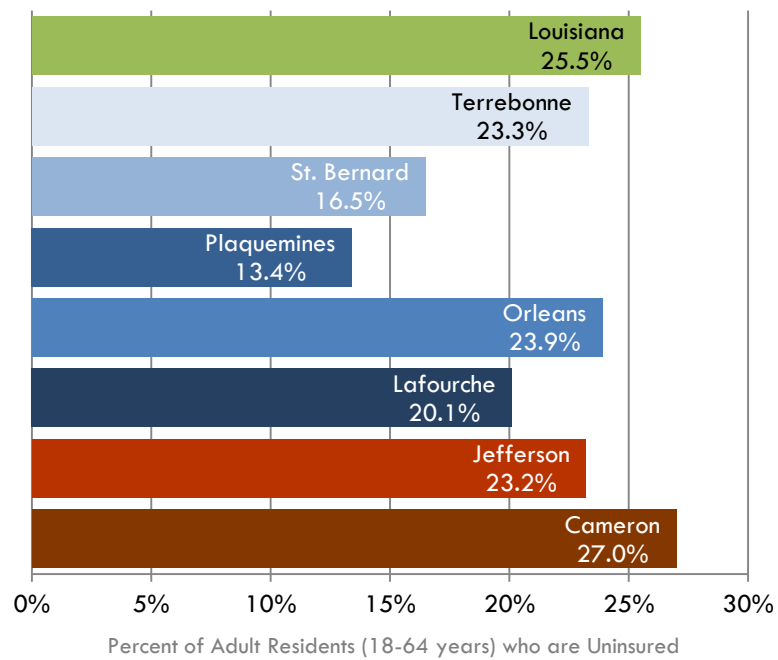
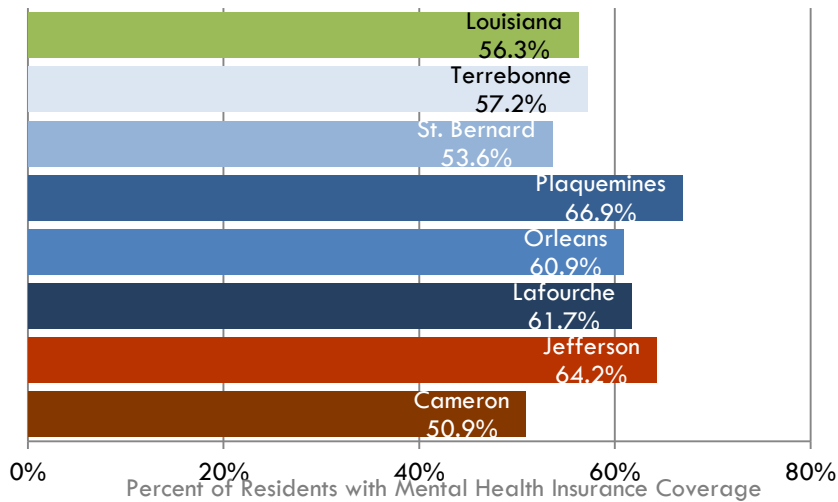


Figure 7 illustrates that over 60% of residents in Plaquemines, Orleans, Lafourche and Jefferson Parishes have insurance that covers mental health services (GSPS, 2010, 2011). Compared to the state, a similar percent of residents in Terrebonne Parish have mental health coverage, while a lower percent in St. Bernard and Cameron Parishes have mental health coverage.

Figure 7. Mental Health Coverage in Louisiana Parishes

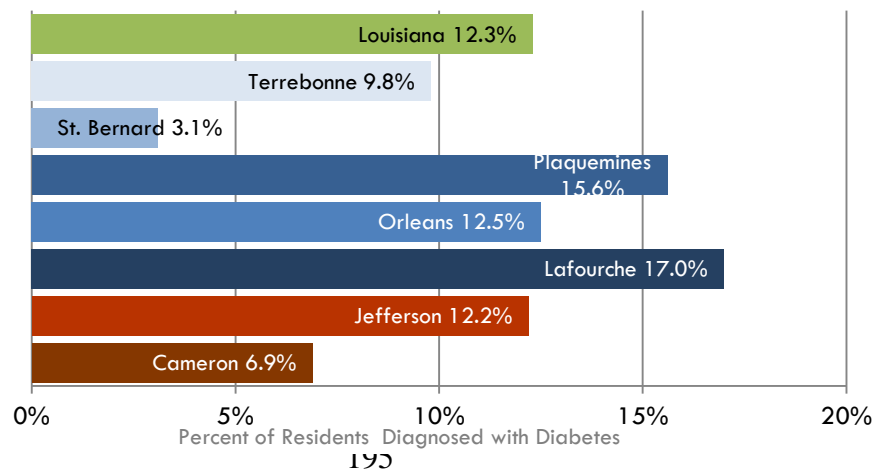


***What is the current health status of the parish residents?***

The community assessment reviewed data on the current health status of parish residents in order to identify physical and mental health needs in the community. Health status factors examined included prevalence of chronic conditions like diabetes and mental health conditions, as these enduring conditions can impact residents’ preparedness for disasters and their recovery. Presented here are findings on diabetes and depression (GSPS, 2010, 2011).

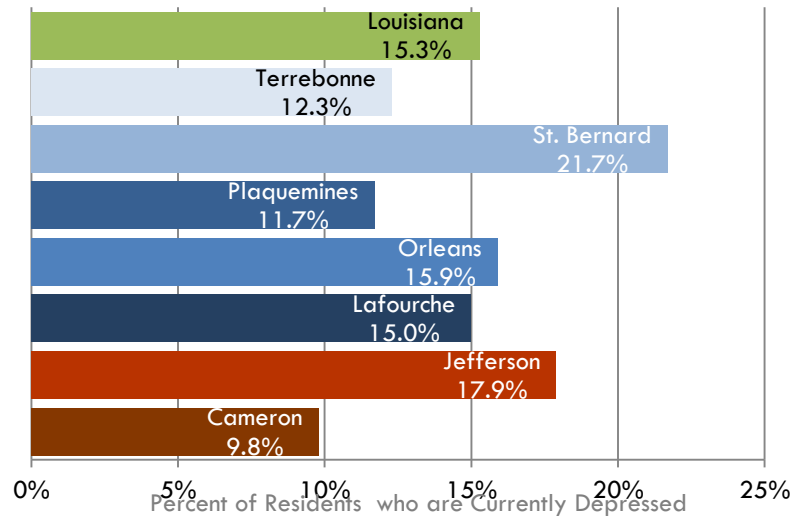
**Diabetes Prevalence.** A higher percentage of residents in Plaquemines and Lafourche Parishes have been diagnosed with diabetes compared to the state (see Figure 8) (GSPS, 2010, 2011). A smaller percentage of residents in St. Bernard, Cameron, and Terrebonne Parishes were diagnosed with diabetes compared to the state, while a similar percentage of residents in Orleans and Jefferson Parishes were diagnosed with diabetes as in the state as a whole.

Figure 8. Diabetes Prevalence in Louisiana Parishes



**Depression Prevalence.** Figure 9 shows that compared to the state, a higher percentage of residents in St. Bernard and Jefferson Parishes are currently depressed (GSPS, 2010, 2011). Compared to the state, a similar percentage of residents in Orleans and Lafourche Parishes are currently depressed, while a lower percent of residents in Plaquemines, Terrebonne, and Cameron Parishes are currently depressed.

Figure 9. Depression Prevalence in Louisiana Parishes



### Clinic Assessment Findings:

Four FQHC operators with clinics in six of the seven parishes in Louisiana completed the clinic assessment<sup>7</sup>. In total, the four operators have eight clinic sites across the six parishes: three clinics in Jefferson, and one each in Terrebonne, Lafourche, St. Bernard, Plaquemines, and Orleans Parishes<sup>8</sup>. Presented here are baseline data that represent the current state of these FQHCs in terms of payer mix, primary care provider staffing, services provided, number of patients served, most prevalent conditions in the patient population, types of mental/behavioral health services offered, percent of patient population affected by the oil spill, and their emergency disaster preparedness.

<sup>7</sup> Cameron Parish has no FQHC.

<sup>8</sup> There are several other FQHCs in Orleans Parish, but they were not included in this clinic assessment process because of their participation in other programs funded by the Louisiana Public Health Institute.

**Table 2. Total Number of Patients in Louisiana Parish FQHCs, 2011-2012**

Parish	Total # of Patients
Jefferson	13,381
Terrebonne & Lafourche	5,311
Orleans*	1,371
St. Bernard & Plaquemines	13,612

\*Includes only one clinic

**Payer Mix.** Between 44% and 57% of the patient populations at the FQHCs serving Jefferson, Terrebonne, Lafourche, and Orleans Parishes are uninsured (see Table 2 for total number of patients served by the Louisiana Parish FQHCs in 2011 or 2012). Only 15% of the patient population is uninsured at the FQHCs serving St. Bernard and Plaquemines Parishes<sup>9</sup>. Between 30% and 40% of the patients used Medicaid at the Jefferson, Terrebonne, and Lafourche FQHCs, while over half of the patients at the Orleans, St. Bernard, and Plaquemines FQHCs used Medicaid. Between 5% and 8% of the patients are on Medicare in all FQHCs. Between 4% and 8% had private insurance in all FQHCs except the FQHC serving St. Bernard and Plaquemines Parishes where 21% had private insurance.

**Service Providers.** When assessing the workforce capacity at the FQHCs, clinics reported the number of full-time equivalent (FTE) staff for primary care providers (PCPs); these included physicians, physician assistants, nurse practitioners and nurses. The staffing profiles at the FQHCs varied, ranging from 2.4 FTE PCPs at the Orleans Parish FQHC with one clinic site to 18.8 FTEs at the Jefferson Parish FQHC with three clinic sites. The two FQHCs in the remaining four parishes, each of which has two sites, reported the following number of PCP FTEs: St. Bernard and Plaquemines with 13.9 FTEs and Terrebonne and Lafourche with 9 FTEs. Notably, the FQHC serving St. Bernard and Plaquemines staffing pattern exceeds the national benchmark of a provider-to-patient ratio of 1:958 (National Association of Community Health Centers, 2008).

**Prevalant Health Conditions.** All FQHCs reported the following as the most prevalent conditions in their patient populations: diabetes, hypertension, heart disease, and depression. Also, all FQHCs provided mental/behavioral health services at their clinic sites which included assessments or screening for mental/behavioral health conditions, counseling or therapy, medication management, and referrals for mental/behavioral health specialty care. Likewise, all

<sup>9</sup> This finding may be due to more patients being covered by the Greater New Orleans Community Health Connection (GNOCHC) waiver in these parishes. GNOCHC is run by the state Medicaid agency to provide access to primary and behavioral health care to residents in four coastal Louisiana parishes through a waiver that is similar to Medicaid.

had mental/behavioral health staff at their clinic sites that included psychiatrists, psychologists, and/or licensed clinical social workers.

**Oil Spill Impact.** In the clinic assessment, FQHC operators were asked to estimate the percentage of their patient population whom had been directly affected by the oil spill (i.e., direct exposure to oil, to dispersants, to controlled burning of the oil at sea), like those who were hired to clean up the oil, and those whom had been indirectly affected by the spill through loss of employment, loss of income, and/or increased stress or behavioral health issues. Orleans and Jefferson Parish FQHCs reported that between 5% and 10% of their patients were directly affected, and 10% to 20% were indirectly affected. The Terrebonne and Lafourche Parish FQHC reported that 5% to 10% of their patients were directly affected by the spill, and over 50% were indirectly affected. The St. Bernard and Plaquemines Parish FQHC reported that between 21% and 30% of their patients were directly affected by the spill and 31% to 40% were indirectly affected.

## CONCLUSION:

### Summary of Findings:

Several important themes emerged from both the community and clinic assessment processes in the Louisiana Parishes. First, residents in these communities experience numerous environmental, occupational, and socioeconomic vulnerabilities. Both the quantitative and qualitative community assessment processes revealed the susceptibility of these coastal communities to environmental hazards such as hurricanes, flooding and sea-level rise. Moreover, the assessment showed that nearly half of the working age residents are employed in occupations at high risk for fatal injury. With oil and gas, fishing, shipping, and manufacturing (sugar and seafood included) being the leading industries and economic drivers in these communities (Ortiz & Plyer, 2013), disaster preparedness and recovery related to oil spills and natural disasters are a priority concern for these residents. These findings suggest that industries and communities find ways to support occupational safety and health programs that prevent and reduce worker injuries, illnesses, and fatalities and mitigate worksite hazards.

Socioeconomic (SES) factors observed in the community assessment revealed notably large percentages of racial and ethnic minority residents living in poverty and significant percentages of residents with low educational attainment. The multiple environmental, occupational, and socioeconomic vulnerabilities present in the racial and ethnic minority populations of these parishes likely contribute to health disparities in outcomes and ability to prepare for and recover from disasters. Additionally, these determinants of health may also contribute to low SES populations' limited ability to access health care following a disaster and limited resources to prepare for a disaster. Thus, government, industry, health care and community-based organizations should have an awareness of the 1 determinants of health and health disparities in the communities they serve in order to target efforts and resources to addressing the particular needs of these vulnerable populations.

The clinic capacity assessments revealed that the vast majority of its patient population is either uninsured or receives Medicaid. Moreover, in some cases these communities have access

to only one FQHC, and access is even more limited in rural areas. As a safety-net provider, FQHCs in these communities play an important role in provision of health care services for uninsured and under-insured populations, particularly those in urban and rural communities (Department of Health and Hospitals Center for Medicare & Medicaid Services, 2013). Thus, lack of insurance, lack of providers who take public insurance like Medicaid, and shortage of health care facilities in rural communities in particular are important access to care barriers revealed through the assessments.

A final theme revealed by the community and clinic assessments was the prevalence of chronic conditions, particularly diabetes and hypertension, and mental health conditions, particularly depression in the Gulf Coast parishes. These findings suggest a need to focus on preventive and mental health care in the region. Untreated or unmanaged chronic and mental health conditions can adversely affect residents' ability to prepare for and recover from all disasters, including significant oil spills like Deep Water Horizon, and more broadly contribute to more serious health outcomes. Thus, addressing chronic care management and mental health care is essential to building the resilience of vulnerable communities like the Gulf Coast parishes of Louisiana.

### **Recommendations for Oil Spill Responders:**

- 1) Leverage FQHCs, rural health centers, and other community clinics as resources in oil spill disaster response; engage them as important stakeholders and partners.
- 2) Focus on mental health; provide or partner with existing service providers in the community to provide services immediately following a disaster and long-term.
- 3) Focus on care management for chronic conditions; provide care management resources and education (e.g., medications, care teams, social services and community-base resources); partner with those providers or facilities who offer care management services and resources.
- 4) Use community and clinic assessments made available through health departments, hospitals, and community health centers to identify health disparities and determine the health and health care needs, barriers, assets, and priorities for communities impacted by oil spills and other disasters.

### **REFERENCES:**

Association for Community Health Improvement, *ACHI Community Health Assessment Toolkit*. Viewed April 25, 2013 at <http://www.assesstoolkit.org/>.

Catholic Health Association of the United States, *Assessing and Addressing Community Health Needs*. Viewed April 25, 2013 at [http://www.chausa.org/Pages/Our\\_Work/Community\\_Benefit/Assessing\\_and\\_Addresssing\\_Community\\_Health\\_Needs/](http://www.chausa.org/Pages/Our_Work/Community_Benefit/Assessing_and_Addresssing_Community_Health_Needs/).

Evans, R. G., Barer, M. L., & Marmor, T. R. (Eds.). (1994). *Why are some people healthy and others not?: The determinants of the health of populations*. Transaction Books.

NACCHO, *Mobilizing for Action through Planning and Partnerships*. Viewed April 25, 2013 at <http://www.naccho.org/topics/infrastructure/mapp/>.



National Association of Community Health Centers (2008). *Access transformed: Building a primary care workforce for the 21<sup>st</sup> century*. Retrieved December 10, 2013 from, <http://www.nachc.org/client/documents/ACCESS%20Transformed%20full%20report.pdf>

Ortiz, E. & Plyer, A. (2013). *Economic synergies across Southeast Louisiana*. Greater New Orleans Community Data Center. Retrieved December 3, 2013, from <http://www.gnocdc.org/EconomicSynergiesAcrossSoutheastLouisiana/index.html>.

U.S. Department of Health and Hospitals Center for Medicare & Medicaid Services (2013). *Federally qualified health center* [Fact Sheet]. Retrieved from <https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/downloads/fqhcfactsheet.pdf>.

Wilkinson R, & Marmot M. (Eds.). (2003). *Social determinants of health: The solid facts*. 2<sup>nd</sup> ed. Copenhagen: World Health Organization. Retrieved April 25, 2013, from [http://www.euro.who.int/\\_data/assets/pdf\\_file/0005/98438/e81384.pdf](http://www.euro.who.int/_data/assets/pdf_file/0005/98438/e81384.pdf) [PDF - 470 KB].