COMMUNITY HEALTH NEEDS ASSESSMENT LEAKE COUNTY, MISSISSIPPI

Mississippi Baptist Health Systems

- **Baptist Medical Center - Leake**

COMMUNITY HEALTH NEEDS ASSESSMENT LEAKE COUNTY, MISSISSIPPI

Contents

Executive Summary

A. Health Status

Leake County's health status is generally similar to the overall State of Mississippi health status. Key health status issues for the overall populations of both Mississippi and Leake County are:

1. Deaths from heart disease	• Leake County's heart disease mortality is higher than the state average, and is driven by white mortality.
2. Deaths from cancer	• Leake County cancer mortality is higher than the state average and is fairly equal by race.
3. Deaths from diabetes	• Mortality from diabetes in Leake County is higher in all races than the state average, but much higher in non-whites.
4. Accidents mortality	• Mortality from accidents in Leake County is approximately double the state average.
5. Infant mortality	• Leake County's infant mortality rate is 8.9% higher than the Mississippi rate and 61.8% higher than the U.S. rate. • Teen pregnancy appears to be one underlying root cause of Mississippi's high infant mortality rate. • Low education levels appear to be both a cause and an effect of teen pregnancy. • The 2013 Proposed State Health Plan does not appear to show a need for more obstetrical beds or neonatal beds in Leake County. The standard for time travel is: "Obstetrical services should be available within one (1) hour normal travel time of 95 percent of the population in rural areas and within 30 minutes normal travel time in urban areas."[1]
6. Long-term care	• The Proposed State Health Plan – 2013 of the Mississippi Department of Health showed that Long Term Care Planning District IV has a 2020 bed need of 8,448, with total licensed/CON approved beds of 5,440/321, indicating a 2020 need for 2,500 beds in District IV. The State Health Plan shows an unmet nursing home bed need for 2015 of 43 beds and a 2020 unmet need of 65 beds for Leake County [2] • An opportunity may exist to meet unmet long-term care needs through expanded home health care services.
7. Inpatient rehabilitation	• Based on the bed need formula found in the statewide criteria and standards section of the Proposed State Health Plan – 2013, Mississippi currently needs one Level I bed; however, Mississippi

[1] Proposed 2013 State Health Plan, Section 103.01, Item 3., June 2012.
[2] Proposed 2013 State Health Plan, Table 2-3 and Appendix, Table 2-3A 2020 Projected Nursing Home Bed Need,

needs 86 additional Level II CMR beds.

Leake County mortality rates reflect racial disparities that are also generally present in the other health status indicators, which are detailed in the body of the Assessment Report. Why does this gap exist and why do variances exist? There are several major reasons, including:

1. Demographics of Leake County.

2. Number of health care providers.

3. Access to health care, expressed in the rate of uninsured (or as a factor of living below poverty income levels).

Evidence exists that the poor health status of Mississippi and Leake County is strongly correlated to poor diet, tobacco use, and sedentary lifestyle.

B. Accountable Care Act

Not having health insurance is often cited as a barrier to health care access and one of the root causes of health disparities. The Accountable Care Act, passed by Congress and signed by the President in 2010, was upheld as constitutional by the Supreme Court in June 2012, with the following key provisions:

1. Mandates that each individual purchase health insurance coverage that meets federal standards, or pay a personal tax.

1. Mandates that employers of more than 50 employees provide employee health insurance coverage that meets federal standards, or pay a non-tax-deductible penalty.

2. Provides incentive subsidies for employers of 25 or fewer employees to provide employee health insurance coverage that meets federal standards.

3. Does not mandate coverage or provide subsidies for employers of 26-49 employees.

4. Makes Medicaid available to all persons under 133% of Federal Poverty Level, versus the current categorical eligibility limits, if the States enact and fund the expanded Medicaid coverage.

5. Prohibits application of pre-existing condition limitations by health insurers.

However, it appears that there will still be a significant number of uninsured Mississippians:

- The Affordable Care Act did not mandate coverage to about 14 million people in the U.S, notably illegal aliens and persons employed by businesses with 1-49 employees.

- Mississippi's employment base is highly concentrated in the small business sector. With the possibly of partially subsidized Exchange coverage for employees and no penalty for employers with fewer than 50 employees, it is likely that many small employers will drop employee health plan coverage – even if they currently provide it.

- The cost to a 50+ employer to provide insurance is substantially higher than the penalty. Many of these mid-sized employers may drop coverage because there is the possibility of partially subsidized Exchange coverage for employees.

- Many people now eligible for Medicaid do not apply.

- The cost to the individual to purchase insurance is substantially more than the tax.

- The prohibition against insurers' pre-existing condition limitations increases individuals' "moral hazard" to not buy insurance until it is needed.

<u>Hospitals are at high risk</u> as the Accountable Care Act begins to be fully implemented in 2014.

- The Accountable Care Act assumed that hospitals would no longer need Disproportionate Share money which Medicare and Medicaid currently provide to hospitals with a high proportion of Medicaid and uncompensated care, so the Act removed this subsidy. However, still in effect is the EMTALA law which requires that hospitals provide a medical screening exam and stabilize the patient before discussing insurance or payment.

- The Supreme Court decided that the federal government could not penalize the states existing Medicaid financing if the states decided not to implement the expanded Medicaid coverage provisions of the Act. Mississippi political leaders have indicated that Mississippi cannot afford to enact the expanded Medicaid coverage. Yet Disproportionate Share Hospital payments will be phased out.

- The Act planned for 14 million people in the U.S. to continue as uninsured.

- Many Mississippi citizens cannot afford to buy the federally mandated insurance and will choose the tax.

- Many Mississippians will succumb to the "moral hazard" of not buying insurance until they think they need it due to the prohibition on pre-existing condition limits. However, when they do buy insurance, there may or may not be retroactive coverage, exposing hospitals to risk of even more uninsured patients.

- Many Mississippi employers (1-49 employees) are not required to buy insurance and will choose not to buy the federally mandated insurance for employees. According to web site www.manta.com as of July 20, 2012, there are approximately 248,638 businesses with 49 or fewer employees in Mississippi.

C. Possible community interventions

In a July 2007 article, "Thinking Aloud About Poverty and Health in Rural Mississippi," the author, Leonard Jack, Jr., PhD, described the link between poverty and poor health status. In this insightful article, Dr. Jack outlined the following recommended interventions. [3]

1. "Act on the determinants of health by influencing policy. According to the WHO (*World health Organization*) equitable distribution of the benefits of economic growth is central to reducing poverty. Maximize the health benefits of economic growth through public policies related to labor, trade, agriculture, environment, and health. Such policies affect people at each stage of life. Getting such policies implemented, however, requires collaborations and networks between public health and many other sectors of society.

1. "Ensure that health systems serve the poor effectively. Beyond ensuring that communities have the capacity to provide optimal health services, public health agencies must address the characteristics that cause health care systems to fail the poor. WHO recommends, at a minimum, that health care systems ensure access irrespective of income and that the poor are treated with dignity and respect, thus protecting the poor from unsafe practices and financial exploitation?

2. "Focus on the health problems that disproportionately affect the poor. WHO proposes providing governments with the tools and guidelines they need to set up the best and most cost-effective interventions to tackle health challenges that disproportionately affect the poor in their countries. Similarly, U.S. public health agencies need to provide Mississippi with technical assistance and resources so that its state and local health departments, other state agencies, universities, and non-governmental organizations can set up interventions to prevent or control diseases that disproportionately affect poor rural Mississippians.

3. "Reduce health risks through a broad approach to public health. Improve poor people's access to basic public services (e.g. clean water, modern sanitation). In addition recognize that poor people are more likely to be exposed to violence and environmental hazards and more likely to suffer as a result of conflicts and natural disasters than affluent people. Planning and preparing for emergencies is particularly critical and requires participation not only by people with experience and expertise in first response and emergency management but also by people from diverse groups (e.g., sanitation specialists, chronic disease specialists)."

[3] Centers for Disease Control and Prevention, www.cdc.gov/pcd/issues/2007/jul/05_0019.htm, "Thinking Aloud About Poverty and Health in Rural Mississippi," Leonard Jack, Jr., PhD.

D. Possible interventions within the Affordable Care Act

Interventions that might make sense generally for hospitals to deal with these risks by helping the uninsured get coverage include:

1. In concert with insurers, offer opportunities for open enrollment assistance.

2. Participate with "One, Mississippi" (Mississippi's Health Insurance Exchange) by referring people to Exchange "navigators" who help people with the choices available to them.

3. Make Exchange navigators available within hospital-operated care settings.

4. Possibly, provide premium subsidies for selected chronic or acute patients who receive services at the facility. Chronically ill persons may not be able to afford coverage and Medicaid may not be sufficient to provide coverage for necessary hospital services.

5. Financially screen patients as soon as allowed under EMTALA and assist them in getting coverage. Many hospitals now do this to help patients get on Medicaid, SSI, the Mississippi Comprehensive Risk Pool, or other coverage.

6. Collaborate to sponsor primary care clinics staffed by nurse practitioners so that the clinics can possibly operate within the low Medicaid payment rates. This approach will help deal with the shortage of primary care providers that now exists in Mississippi and that most expect the Accountable Care Act to exacerbate.

* * * * * * *

The remainder of this report contains:

- Quantitative Assessment
- Qualitative Assessment
- Priority Health Service Issues/Gaps
- Community, Public Health and Provider Solutions

Baptist Medical Center – Leake has in a separate document developed objectives for improving community health status that are consistent with the Baptist mission, vision and values. These objectives have been approved by the Baptist Medical Center – Leake Board of Directors.

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Approved by Board of Directors Date

COMMUNITY HEALTH NEEDS ASSESSMENT

Methodology

A. Objectives

The following are the objectives for the Community Health Needs Assessment:

- Describe the health of populations residing in the primary service area of Leake County.
- Identify priority health service issues in the Leake County population.
- Identify how priority health needs differ among subgroups of the population.
- Assess trends in the health status and health behaviors of residents, if possible.
- Identify opportunities to improve the health status of these populations.
- Develop opportunities for health status improvement that are within the scope of the hospital's mission.

B. Oversight

The ultimate oversight of the Assessment was provided by the Baptist Medical Center-Leake Board of Trustees. Senior management and other resource personnel participated on the Assessment Team.

Mississippi Baptist Medical Center's Assessment Team for preparation of this Community Health Needs Assessment consisted of the following:

Name	Title	Role
C. Gerald Cotton	Chief Executive Officer	Oversight/planning
David A. Jackson	Chief Financial Officer	Oversight/data analysis/ planning

An independent consultant was engaged to assist in the Community Health Needs Assessment:

G. Edward Tucker, Jr.
Certified Management Consultant
739 South Main
Petal, MS 39465
ed@getucker.com
601-594-3030

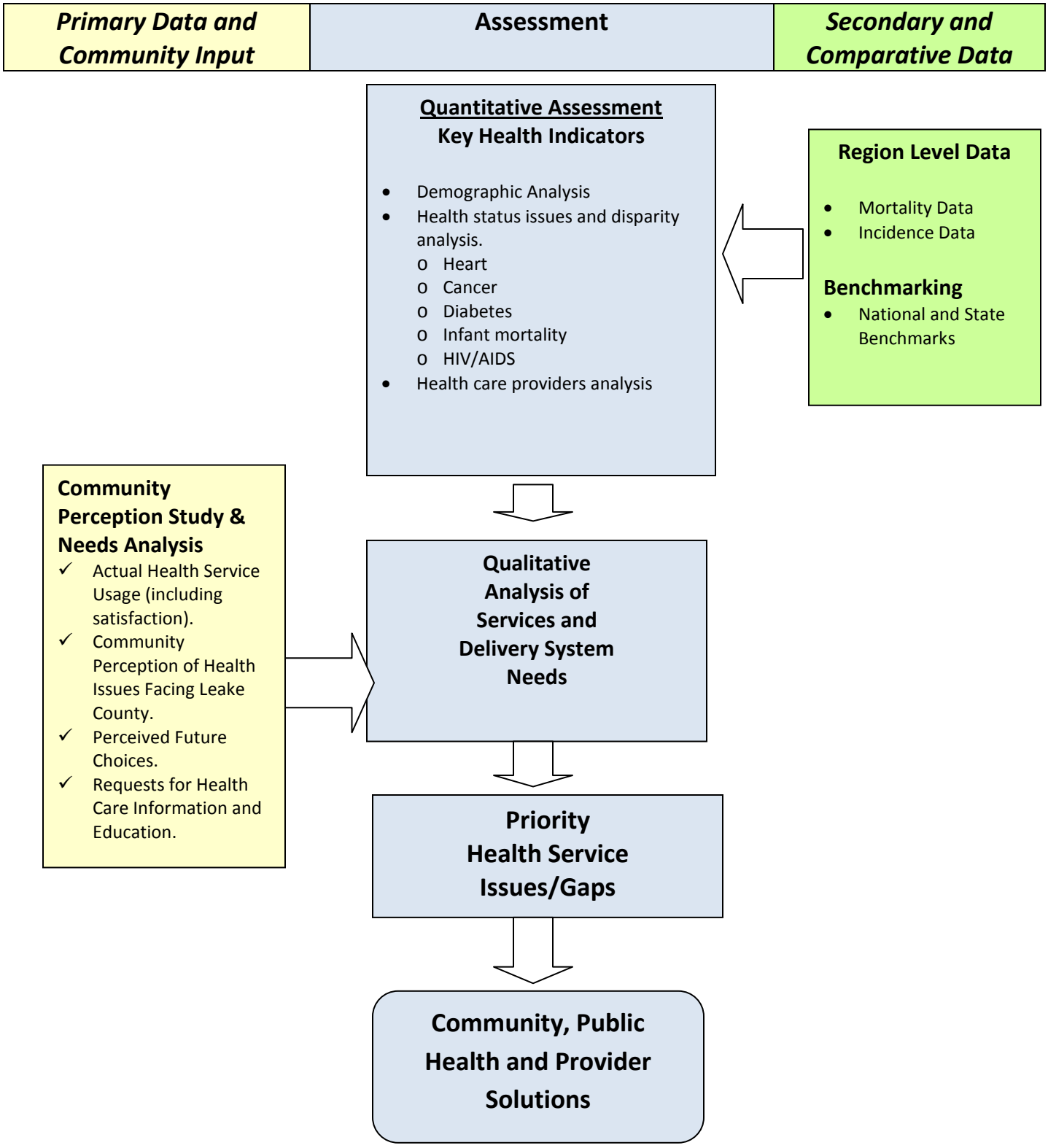
D. Study Steps

The primary steps of the study were:

- Define study region – Leake County.
- Profile the demographic composition of Leake County.
- Identify peer group communities.
- Develop and conduct community health status, utilization and preference survey.
- Develop health status indicator profile and identify priority health issues.
- Assess current services for priority health issues.
- Develop health services planning document.
- Present findings to the Board of Trustees and local stakeholders.
- Produce and disseminate final planning report.

The methodology is outlined in the flow diagram on the next page.

E. Community Health Needs Assessment Methodology Flow



F. Information Gaps

Information on demographics and health status of the community was fairly readily accessible on the internet from secondary sources.

Information gaps mainly existed in getting direct feedback from disadvantaged individuals in the community. To address the information gap, the team contracted for a survey of the community providing reliable input on behalf of the community. Surveyed perceptions of Baptist Medical Center - Leake were average to good and varied somewhat by service line.

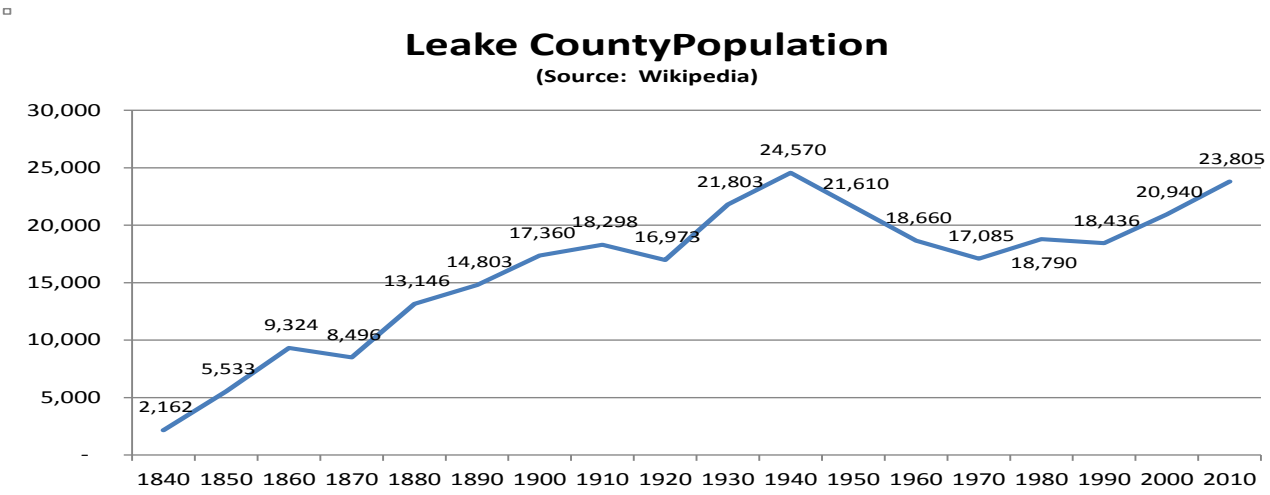
G. "Community" Defined

Baptist Medical Center - Leake (BMCL) has defined the "community" for purposes of this study as Leake County, Mississippi. Leake County comprises BMCL's "Primary Service Area" – the county where the majority of the hospital's inpatients reside.

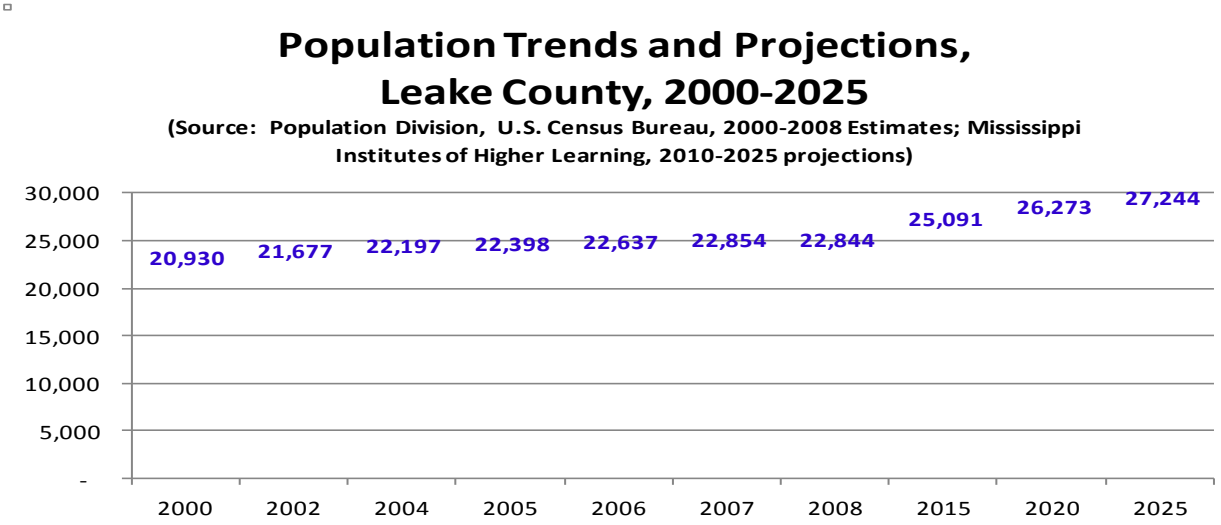
Quantitative Analysis

A. Demographic Analysis

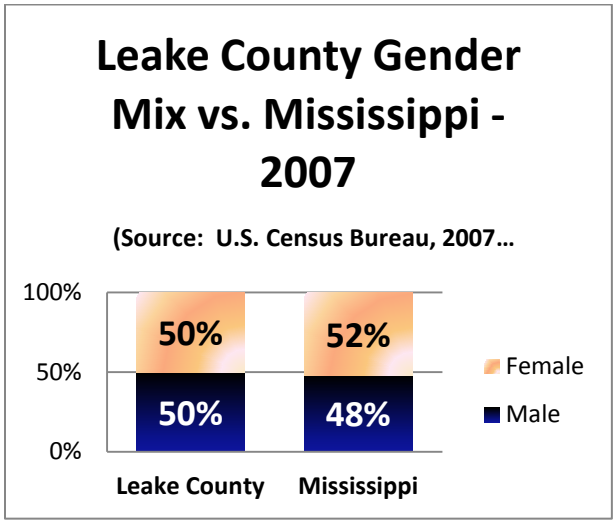
The following graph shows that Leake County grew fairly steadily from 1840 to 1940. During the next 50 years from 1940-1990 Leake County declined in population, but the trend has reversed since 1990 and the population in 2010 was nearing 1940 levels again.



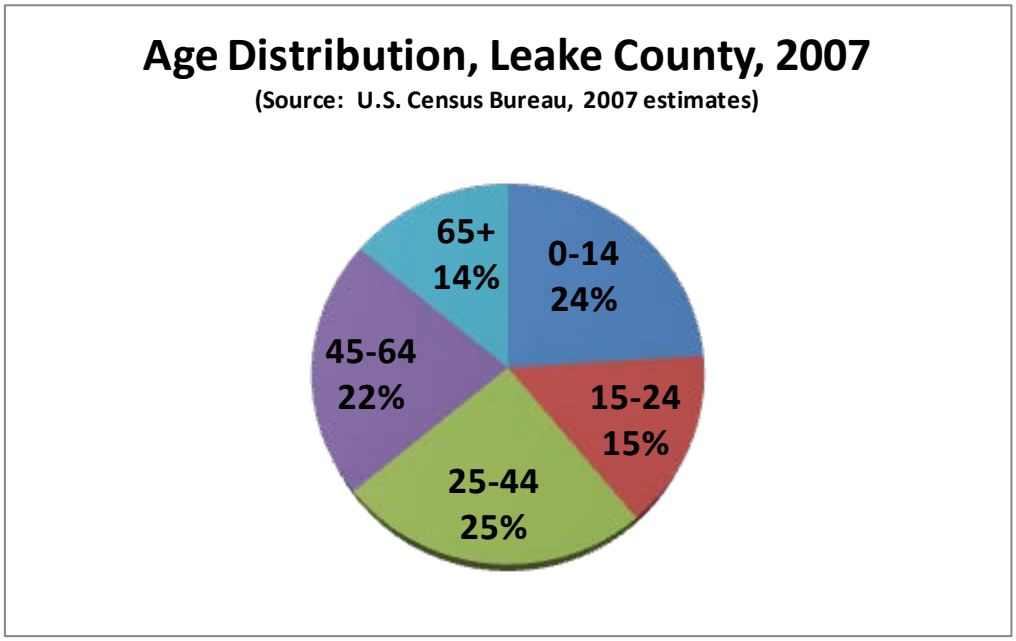
Leake County's population is expected to grow from 20,930 in 2000 to 27,244 in 2025 – a growth of 6,314 or 30.2 percent. Leake County is expected to grow by 4,400 or 19.3% from 2008 (22,844 population) to 2025's projected population of 27,244. These growth rates are well above normal for Mississippi. The chart on the following page shows these trends (*Source: Mississippi Department of Health*).



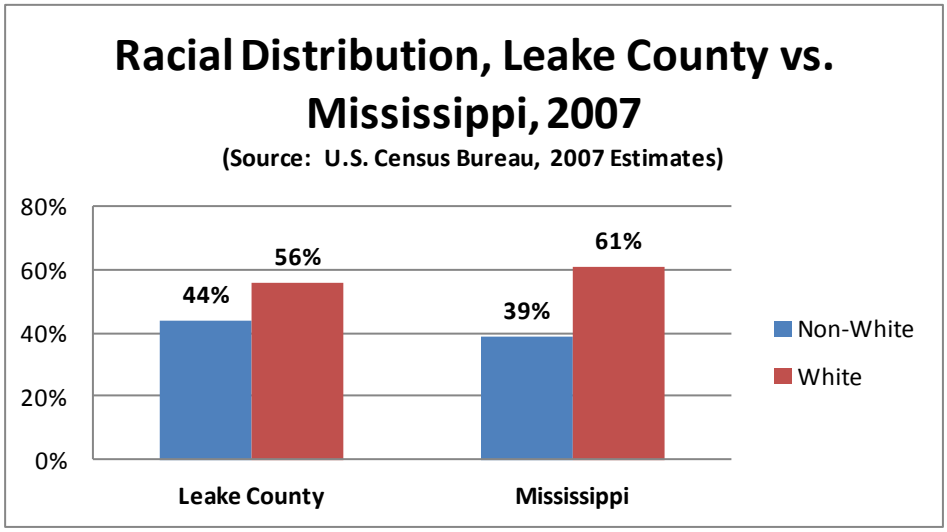
Leake County's gender mix in 2007 was 50% male and 50% female, compared to Mississippi's 48% male and 52% female mix.



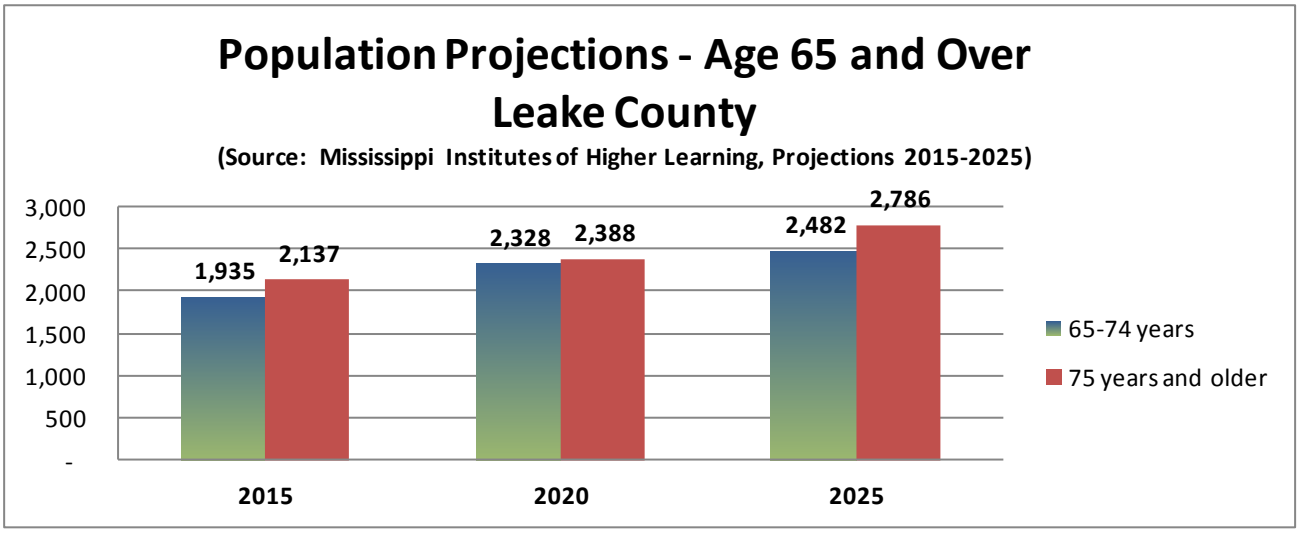
Following is the 2007 age distribution of Leake County, showing a fairly balanced distribution by age category.



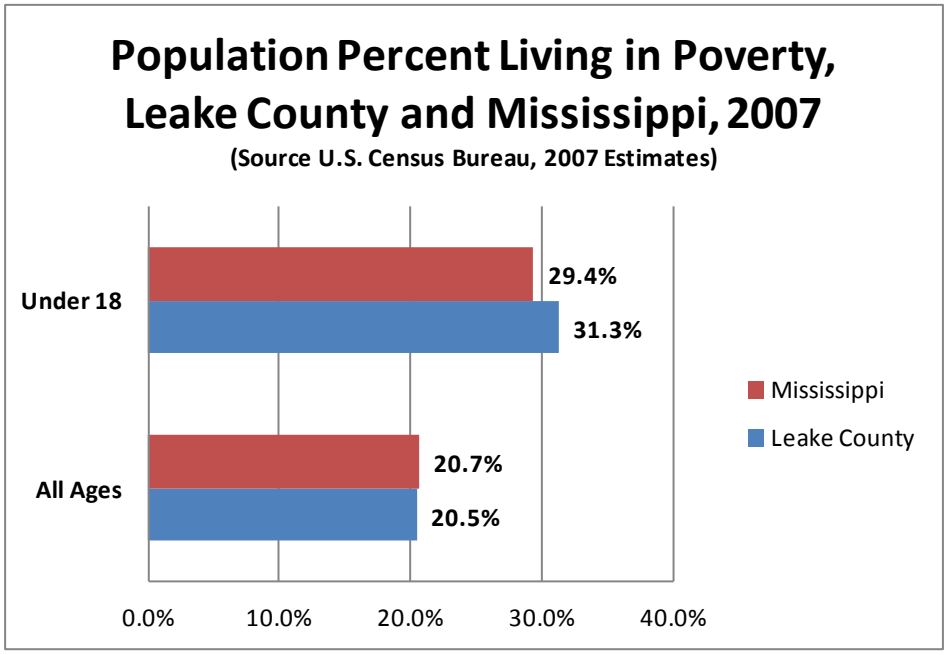
Leake County's percentage non-white racial makeup is somewhat higher than the State of Mississippi as a whole.



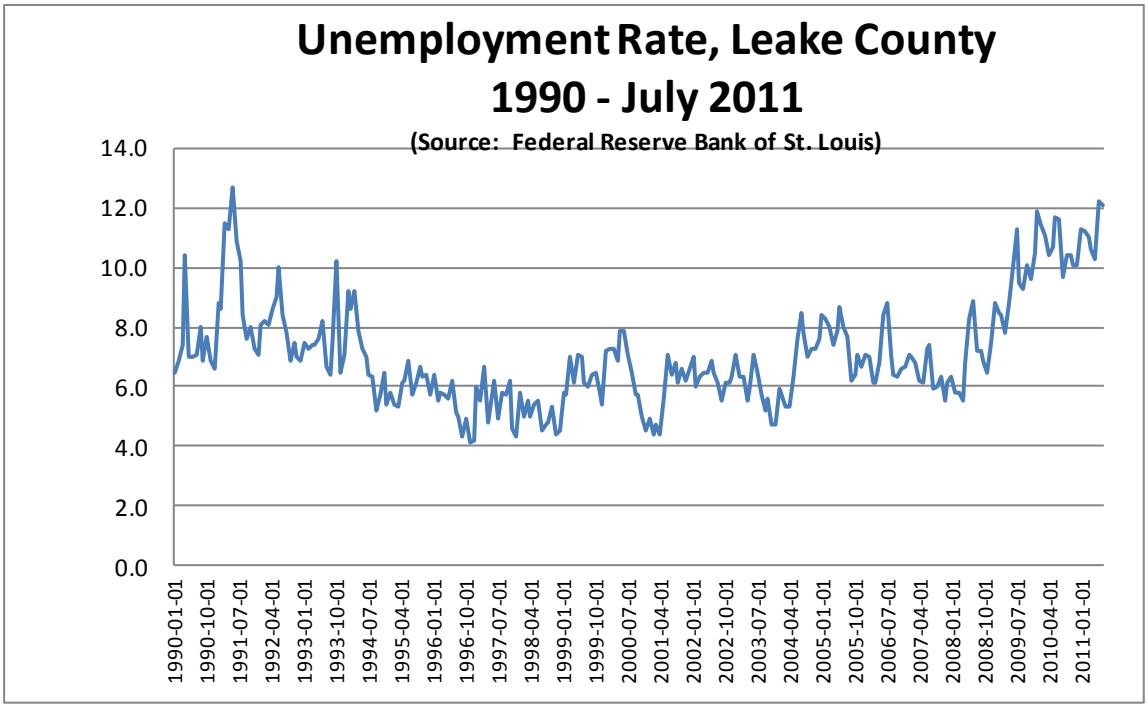
The population age 65-and-over use significantly more health care services than the under-65 group, with those 75 years of age and over using even more health care services than the 65-74 age cohort. Leake County has the following projected growth of age 65+ population.



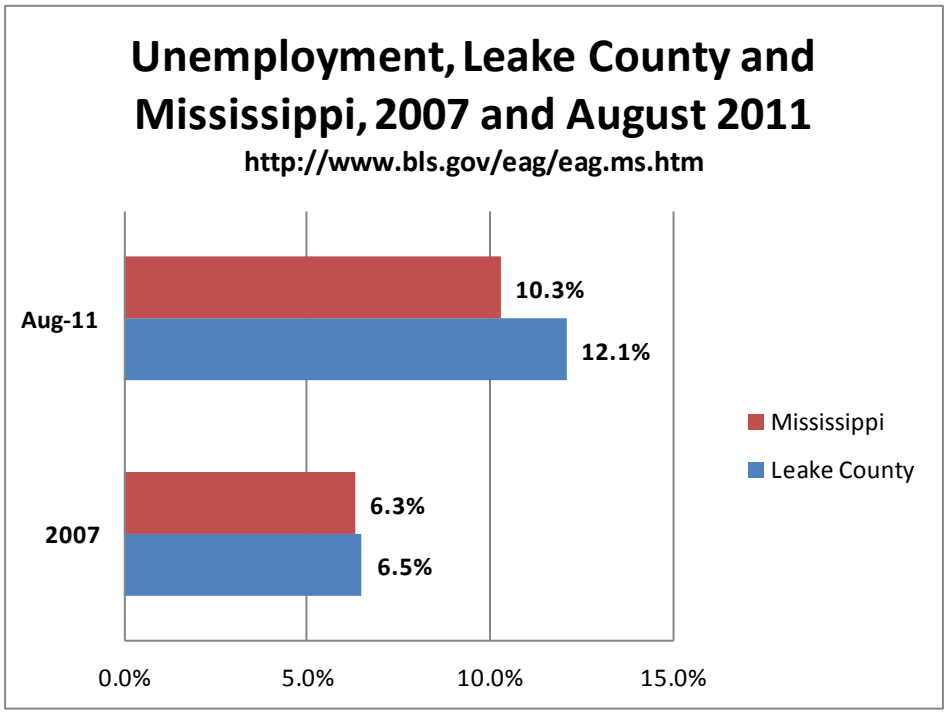
Poverty is a strong predictor of poor health status. Leake County's all-age poverty level is almost exactly the Mississippi average, while Leake County's under-18 population lives in somewhat higher percentage of poverty, as shown in the chart below (*Source: Mississippi Department of Health*).



A review of Leake County unemployment rates from 1990 to July 2011 shows that unemployment reached nearly 13% in the late 1990's and dropped to the 4-6 percent range until the 2007-08 U.S. fiscal crisis. In July 2011, Leake County unemployment was 12.1 percent.



August 2011 unemployment in Leake County was 12.1%, which was 17.5% higher than the Mississippi's 10.3% average.



Conclusions – Demographics:

Leake County is proportionately distributed with a slightly higher male distribution than Mississippi as a whole at 50% male and 50% female. Leake County has 44 percent non-white versus Mississippi's 39 percent.

Leake County is expected to grow by 4,400 or 19.3% from 2008 (22,844 population) to 2025's projected population of 27,244. This growth rate is higher than Mississippi's projected overall growth rate.

Leake County has a higher than Mississippi average percentage of people under age 18 living in poverty, possibly owing to unemployment being higher than the Mississippi average.

B. Health Status Issues and Disparity Analysis

Major health status issues in Mississippi relate to the following:

- Heart disease
- Cancer
- Diabetes and obesity
- Infant mortality

From the Proposed State Health Plan – 2013, made available by the Mississippi Department of Health in June 2012, the team identified the following service area *community* health system needs:

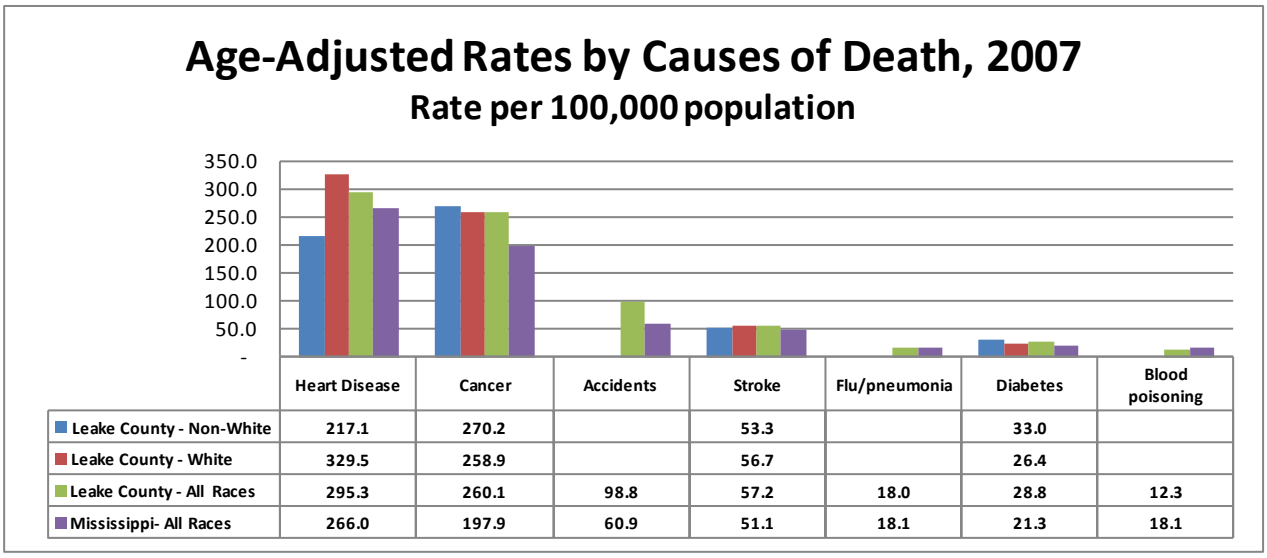
- Long-term care
- Inpatient rehabilitation

C. Major Leake County disease and disparity issues – heart, cancer, diabetes, accidents

Secondary data was gathered to analyze Leake County's health status as compared to Mississippi.

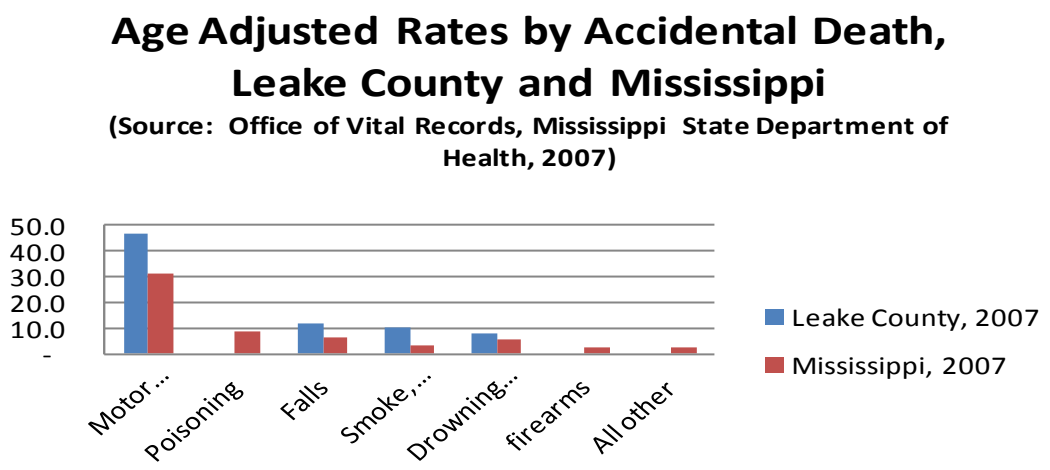
Disease Category	Leake Compared to MS	Details
Heart disease mortality	⇧	Leake County heart disease mortality is higher than the state average, and is driven by white mortality.
Cancer mortality	⇧	Leake County cancer mortality is higher than the state average and is fairly equal by race.
Accidents mortality	⇧	Mortality from accidents in Leake County is approximately double the state average.
Diabetes mortality	⇧	Mortality from diabetes in Leake County is higher in all races than the state average, but much higher in non-whites.

Following are details.

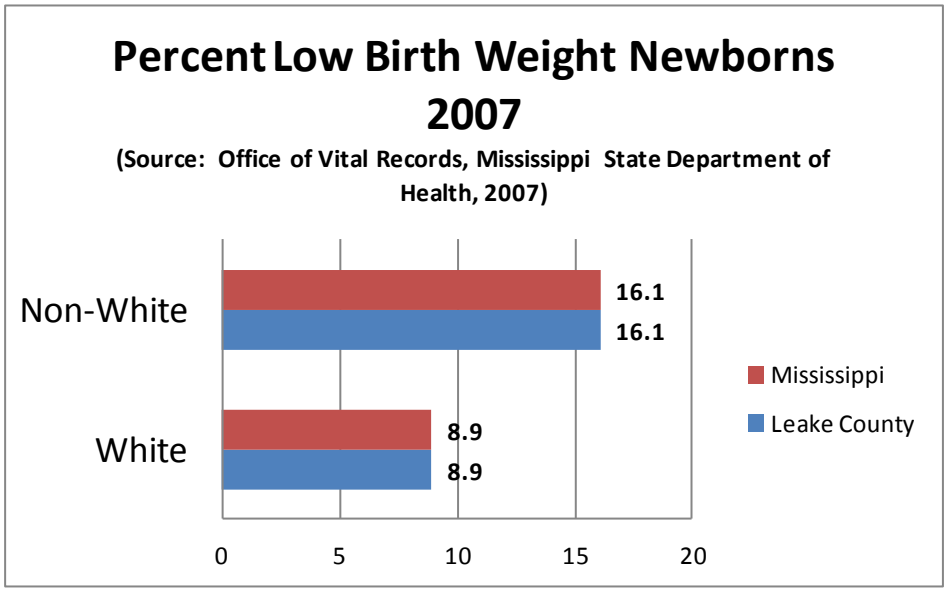


	Heart Disease	Cancer	Accidents	Stroke	Flu/pneumonia	Diabetes	Blood poisoning
Leake County - Non-White	217.1	270.2		53.3		33.0	
Leake County - White	329.5	258.9		56.7		26.4	
Leake County - All Races	295.3	260.1	98.8	57.2	18.0	28.8	12.3
Mississippi- All Races	266.0	197.9	60.9	51.1	18.1	21.3	18.1

Mortality from accidental death in Leake County are of special concern, being significantly higher than the state average in motor vehicle accidents, falls, smoke/fire, and drowning.



Leake County's rates of low birth weight newborns match the State's rates. These rates are widely known to be higher than the U.S. rates.



The health status gap is defined as the gap in the key population health metrics between each county's population health status and: (1) Mississippi's health status, and (2) U.S. health status.

Following is a mortality "gap analysis" for each of the three major disease categories, measured by the percentage gap between mortality rates for each county compared to the U.S. mortality rate.

Table 1 – Mortality Rates – Age Adjusted Causes of Death (Rate per 100,000)

Indicator	Leake County	Mississippi	U.S.
Heart disease-Overall	**295.3**	**274.8**	**190.9**
Heart disease-White	329.5	303.7	187.6
Heart disease-Non-White	217.1	230.3	247.1
Cancer-Overall	**260.1**	**203.2**	**183.8**
Cancer-White	258.9	226.1	182.4
Cancer-Non-White	270.2	167.7	224.2
Diabetes-Overall	**28.8**	**21.9**	**22.5**
Diabetes-White	26.4	18.4	20.5
Diabetes-Non-White	33.0	27.3	42.8

Source: Office of Vital Records, Mississippi State Department of Health, 2007

Conclusions – Heart, Cancer, Diabetes, Accidents Gap Analysis:

- Leake County heart disease mortality is significantly higher than both the Mississippi rate and the U.S. rate. Leake County non-whites have lower heart disease mortality than whites. Interestingly, the Mississippi non-white mortality from heart disease is *6.8% lower* than the U.S. rate.
- Leake County cancer mortality for both whites and non-whites is higher than the Mississippi and U.S. rates.
- Diabetes mortality in Leake County is higher than the Mississippi rates in both non-whites and whites. However diabetes mortality in Leake County non-whites is lower than the U.S. rate.
- Mortality from accidents in Leake County is approximately double the state average.

D. Infant mortality issues and disparities

According to the Mississippi Department of Health's Proposed State Health Plan – 2013[4]:

"Infant mortality remains a critical concern in Mississippi, with the rate increasing to 10.0 deaths per 1,000 live births in 2009 from 9.9 in 2008. Table 4-1 shows the 2009 infant mortality rate, neonatal, and post-neonatal mortality for non-whites all substantially above the rates for whites. (Note: 2009 vital statistics data is the most recent currently available.)

2009 Infant Mortality Rates (deaths per 1,000 live births)			
Category	**Overall State Rate**	**White Rate**	**Non-White Rate**
Total infant mortality (age under 1 year)	10.0	7.0	13.4
Neonatal mortality (age under 28 days)	6.1	4.2	8.3
Post-neonatal mortality (age 28 days to 1 year)	3.8	2.7	5.1

Many factors contribute to Mississippi's high infant mortality rate: the high incidence of teenage pregnancy, low birth-weight, low levels of acquired education, low socioeconomic status, lack of access for planned delivery services, and lack of adequate perinatal and acute medical care.

More than 98 percent of expectant mothers received some level of prenatal care in 2008. More than 82 percent (35,445) began prenatal care in the first trimester; 13.0 percent (5,570) began in the second trimester, and2.0 percent (859) during the third trimester. More than one percent (504) of expectant mothers received no prenatal care prior to delivery; the month was unknown for 307 mothers (0.7 percent); and it was unknown whether 124 mothers (0.3 percent) received any prenatal care. White mothers usually receive initial prenatal care much earlier in pregnancy than do nonwhites.

In 2009, 12.2 percent of births were low birthweight (less than 5.5 pounds – 2,500 grams) and 17.4 percent were premature (gestation age less than 37 weeks). These indicators differ markedly by race of the mother: 8.9 percent of white births were low birthweight compared to 16.0 percent for nonwhites, and 14.0 percent of white births were premature versus 21.4 percent for nonwhites.

A total of 7078 Mississippi teenagers gave birth in 2009 — 16.5 percent of the state's 42,809 live births. Until 2008 births to teenagers have increased each year since 2005, and the 2009 umber represents a 3.2 percent decrease from the 7,310 births to teenagers in 2008. Teen pregnancy is one of the major reasons for school drop-out. Teenage mothers are (a) more likely to be unmarried; (b) less likely to get prenatal care before the second trimester; (c) at higher risk of having low birthweight babies; (d) more likely to receive public assistance; (e) at greater risk for abuse or neglect; and (f) more likely to have children who will themselves become teen parents. In 2009, 13.4 percent of the births to teenagers were low birthweight, and 18.4 percent were premature.

Of the 42,809 total births in 2009, 32,731 were associated with "at risk" mothers (76.5percent). "At risk" factors include mothers who are and/or have:

- ☐ under 17 years of age or above 35 years of age;
- ☐ unmarried;
- ☐ completed fewer than eight years of school;
- ☐ had fewer than five prenatal visits;
- ☐ begun prenatal care in the third trimester;

[4] Mississippi Department of Health, Proposed State Health Plan, 2013

☐ had previous terminations of pregnancy; and/or
☐ a short inter-pregnancy interval (prior delivery within 11 months of conception for the current pregnancy)."

Infant mortality rates in the service area for 2005-2009, according to the 2013 Proposed State Health Plan were as shown to the right. Leake County's infant mortality rate is 8.9% higher than the Mississippi rate and 61.8% higher than the U.S. rate.

(Per 1,000 Live Births)	**Infant Mortality Rate - 2009**
Leake County	11.0
Mississippi	10.1
USA (2006)	6.8

Baptist Medical Center – Leake is not able to offer obstetrical services because there is not an OB-GYN physician in the county.

Conclusions: Leake County Infant Mortality

- Leake County's infant mortality rate is 8.9% higher than the Mississippi rate and 61.8% higher than the U.S. rate.
- Teen pregnancy appears to be one underlying root cause of Mississippi's high infant mortality rate. Low education levels appear to be both a cause and an effect of teen pregnancy.
- The 2013 Proposed State Health Plan does not appear to show a need for more obstetrical beds in Leake County, since these services are available within the driving times standards.

E. Conclusions – Health Issues and Disparity Gap

Mortality rates reflect *racial disparities* among Leake County, the State of Mississippi and the United States.

Heart disease mortality:

- Whites in Leake County have higher heart disease mortality than non-whites.

Cancer mortality:

- Leake County cancer mortality is higher than the state average and is fairly equal by race.

Diabetes mortality:

- Mortality from diabetes in Leake County is higher in all races than the state average, but much higher in non-whites.

Accidents mortality:

- Mortality from accidents is approximately double the state average for Leake County.

Infant mortality:

- Leake County's infant mortality rate is 8.9% higher than the Mississippi rate and 61.8% higher than the U.S. rate.
- Obstetrical hospital care is not offered in Leake County, but services are available within the driving times prescribed by the State Health Plan.
- Teen pregnancy appears to be one root cause.
- Poor educational achievement appears to be both a root cause and a long-term outcome of teen pregnancy.

Health Care Providers

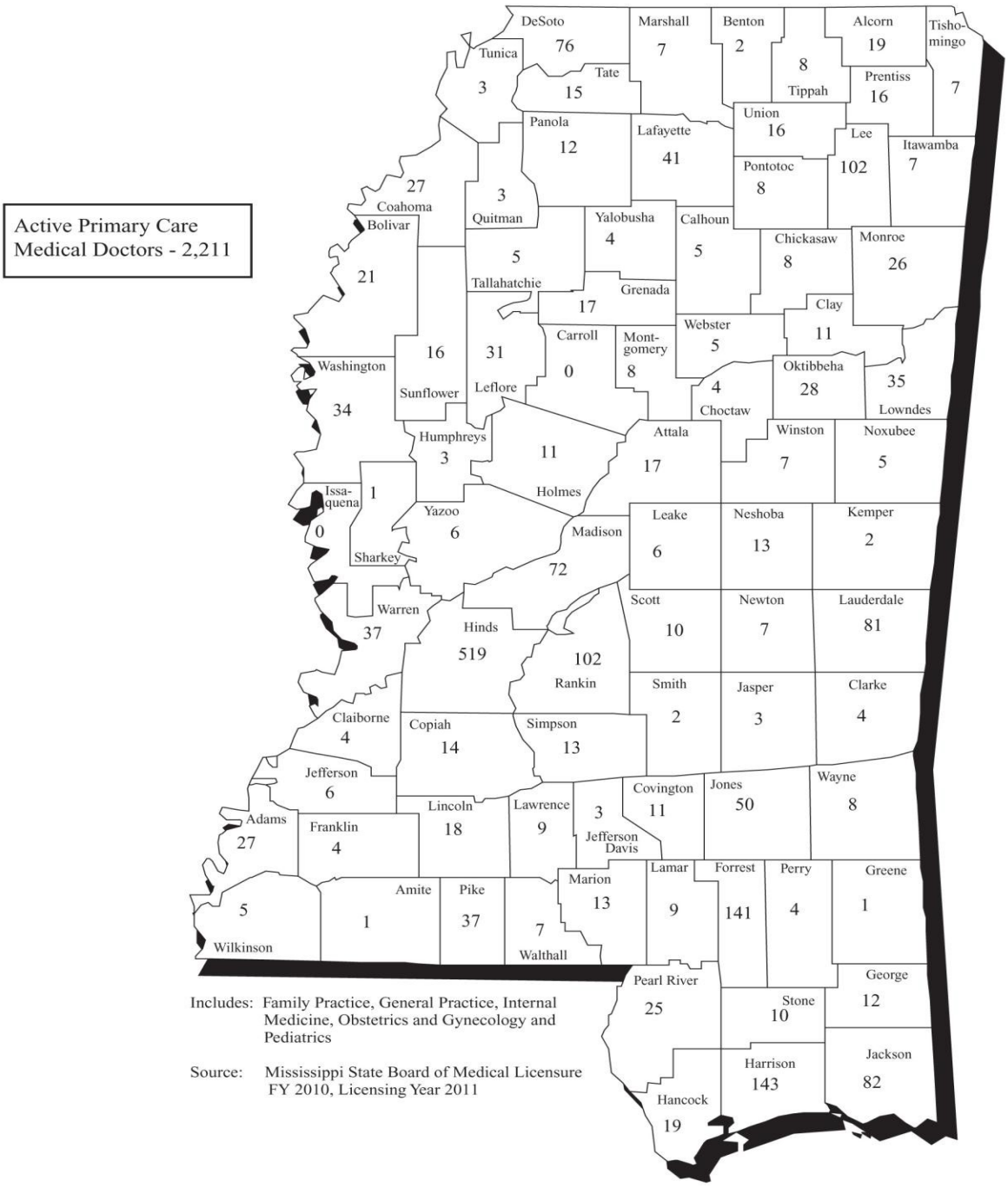
A. Physicians

According to the Mississippi Center for Health Workforce, in 2008, almost one-third of Mississippians resided in a Primary Care Health Professional Shortage Area. This means that residents of those areas have a more difficult time finding primary health care.

According to the Health Resources and Services Administration's Office of Shortage Designation, Mississippi has a total of 136 primary care health professional shortage area (HPSA) designations. Seventy of the designations are single county designations. The United States Department of Health and Human Services defines a primary care health professional shortage area (HPSA) as a geographic area that has a ratio in excess of 3,500 persons per primary care physician and insufficient access to those physicians within a 30 minute traveling radius. Also, areas with 3,000 to 3,500 persons per primary care physician that have unusually high needs for primary care services and have insufficient access to primary care doctors within a 30 minute traveling radius can also be designated as a primary care HPSA.

Source: Proposed State Health Plan,
Mississippi Department of Health (web site June 2012)

On the following page is a map of Mississippi counties with the number of physicians by county of residence.



Active Primary Care Medical Doctors by County of Residence – FY 2010
Source: Proposed State Health Plan 2013, Mississippi Department of Health

Leake County is listed in the above map as having six (6) physicians. The Mississippi State Board of Medical Licensure 2011 report on its web site lists nine (9) physicians in Leake County.

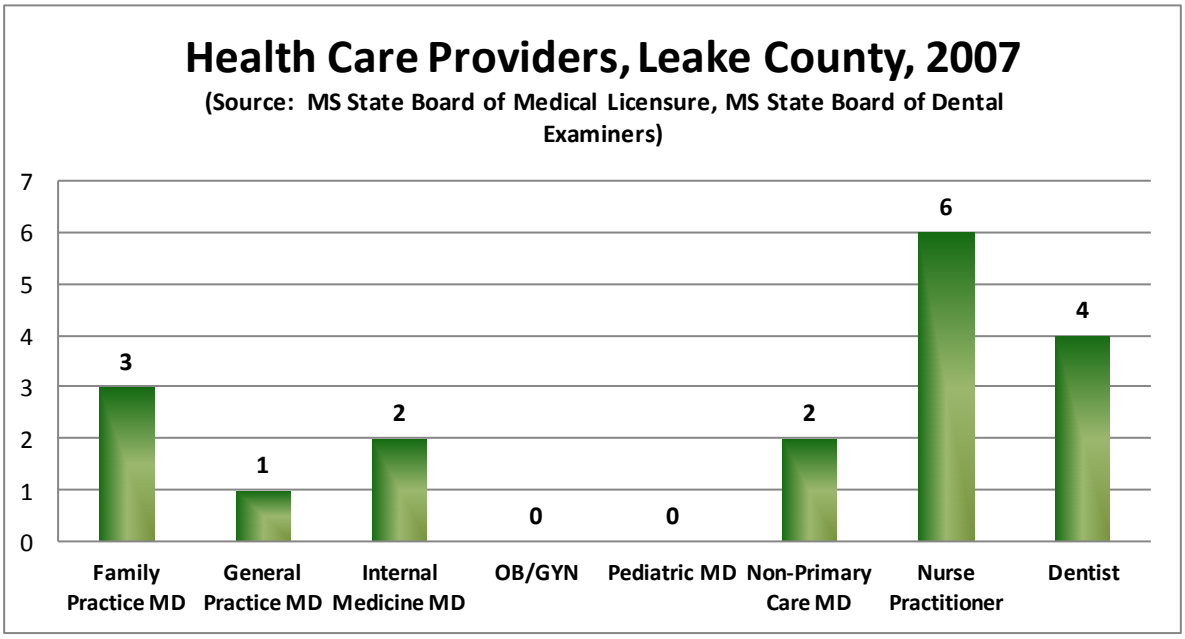
To obtain a breakdown of health care providers, the 2011 Mississippi State Board of Medical Licensure report showed the following:

Specialty	2011 Physicians
General practice	1
Family practice	4
Internal medicine	2
Emergency medicine	2
TOTAL	**9**

Source: 2011 Report - Mississippi State Board of Medical Licensure, web site

The 2011 report listed no physician's assistants in Leake County.

Following is data from a 2007 report that also shows the number of Nurse Practitioners and Dentists. It is believed that some of the Nurse Practitioners practice at the Choctaw reservation.



Based on a projected population of approximately 25,000 by 2015, and using the HPSA definition of one primary care physician per 3,500 people, the primary care physician need might be calculated as follows:

Number of physicians (excluding ER physicians) - current	7.00
Population projected for 2015	25,000
Divided by HPSA minimum definition	3,000
Minimum physician need per HPSA definition	8.33
COUNTY SHORTAGE	**(1.33)**

The above shortage could be exacerbated considering the age of the existing medical staff at Baptist Medical Center – Leake, where some of the physicians are nearing retirement age.

With the existing aged hospital facility it is difficult to recruit physicians to the community. Experience at other small town facilities shows that, once a new or upgraded facility is in place with modern facilities, equipment and services, recruiting physicians to smaller communities is more feasible. Getting more physicians into a small community, in turn, makes more possible the ongoing financial feasibility of a rural hospital.

B. Short-Term Acute Care Hospital Services

Following is data about bed complement for General Hospital Service Area 5, in which Leake County is located.

General Hospital Service Area 5 *(Source: Mississippi Department of Health Proposed State Health* Plan – 2013)					
Facilities	**Licensed Beds**	**Abeyance Beds**	**Average Daily Census**	**Occu-pancy Rate**	**Length of Stay**
Central Mississippi Medical Center	400	0	138.29	34.57	5.03
Crossgates River Oaks Hospital	134	0	71.00	52.99	5.28
Hardy Wilson Memorial Hospital	35	0	14.68	41.95	4.89
Holmes County Hospital and Clinics	25	10	3.11	12.45	2.93
King's Daughters Hospital-Yazoo City	35	0	18.11	51.75	5.28
Leake Memorial Hospital - Carthage	25	0	6.73	26.90	3.03
Madison County Medical Center	67	0	12.33	18.41	3.07
Magee General Hospital	64	0	19.05	29.77	3.88
Mississippi Baptist Medical Center	541	0	263.61	48.73	5.21
Montfort Jones Memorial Hospital	71	0	18.98	26.73	4.30
Patient's Choice Medical Center of Claiborne	32	0	12.36	38.62	5.55
County Patients' Choice Medical Center of Smith	29	0	0.00	0.00	0.00
County River Oaks Hospital	160	0	73.25	45.78	3.76
River Region Health System	261	0	118.13	45.26	4.76
S.E. Lackey Critical Access Hospital	35	0	15.19	43.41	3.49
Scott Regional Hospital	25	0	12.68	50.74	3.22
Sharkey - Issaquena Community Hospital	29	0	7.47	25.75	5.37
Simpson General Hospital	35	0	12.42	35.48	5.23
St. Dominic-Jackson Memorial Hospital	417	0	297.88	71.43	4.50
University Hospital & Health System	664	0	442.02	66.57	6.32
Woman's Hospital at River Oaks	111	0	23.87	21.51	3.61
General Hospital Service Area 5	**925**	**19**	**325.24**	**35.16**	**4.78**

The State Health Plan does not specify a need for more acute care hospital beds in the service area, leaving that work up to applicants.

C. Long-Term Acute Care

Following is data from the 2013 Proposed State Health Plan regarding Long-Term Acute Care Hospital capacity.

General Hospital Service Area 5	Authorized Beds	Licensed Beds	Occupancy Rate	Dis-charges	ALOS
	149	**149**	**77.35**	**1,704**	**24.97**
Mississippi Hospital for Restorative Care - Jackson	25	25	70.07	229	25.85
Promise Hospital of Vicksburg - Vicksburg	35	35	72.74	374	25.39
Regency Hospital of Jackson - Jackson	36	36	75.18	415	23.80
Select Specialty Hospital of Jackson - Jackson	53	53	85.30	686	25.16

The Plan does not calculate any need for new LTACH beds, leaving that work up to applicants.

D. Swing-Bed Services

Federal law allows hospitals of up to 100 beds to use designated beds as "swing beds" to alternate between acute and extended care. Patients occupy swing-beds for a few days to several weeks. Hospitals must meet several requirements for certification as swing-beds under Medicare and Medicaid. Federal certification requirements focus on eligibility, skilled nursing facility services, and coverage requirements. Eligibility criteria include rural location, fewer than 100 beds, a Certificate of Need, and no waiver of the 24-hour nursing requirement.

Baptist Medical Center – Leake qualifies for and operates swing bed services as part of its medical care program.

E. Inpatient Rehabilitation Services

Need for these services are considered on a statewide basis. Following is a table of hospital based Level II Comprehensive Medical Rehabilitation services from the Proposed 2013 State Health Plan.

Hospital-Based Level I CMR Units
FY 2010

Facilities	Licensed Bed Capacity	Average Daily Census	Average Length of Stay	Occupancy Rate (%)
Baptist Memorial Hospital - DeSoto	30	15.50	13.08	51.67
Delta Regional Medical Center -West Campus	24	7.07	12.84	29.46
Forrest General Hospital	24	17.79	13.11	74.12
Memorial Hospital at Gulfport	33	18.94	15.13	57.40
Mississippi Methodist Rehab Center	80	48.06	15.32	60.08
North Miss Medical Center	30	18.79	16.77	62.63
University Hospital and Health System	25	20.81	16.84	83.24
State Total	**246**	**20.99**	**14.73**	**59.80**

Source: 2010 Report on Hospitals, Mississippi State Department of Health

Hospital-Based Level II CMR Units
FY 2010

Facility	Licensed Bed Capacity	Average Daily Census	Average Length of Stay	Occupancy Rate (%)
Baptist Memorial Hospital - North Miss	13	7.16	12.56	55.05
Greenwood Leflore Hospital	20	8.49	12.26	42.44
Natchez Regional Medical Center	20	5.85	13.94	29.25
Northwest Miss Regional Med Center	14	2.31	9.81	16.52
Riley Memorial Hospital	20	14.75	13.53	73.75
Singing River Hospital	20	17.15	12.90	85.77
TOTALS	**107**	**9.29**	**12.50**	**50.46**

Source: 2010 Report on Hospitals, Mississippi State Department of Health

Based on the bed need formula found in the criteria and standards section of the Proposed State Health Plan – 2013, Mississippi currently needs one Level I bed; however, Mississippi needs 86 additional Level II CMR beds.

F. Long-Term Care

According to the Proposed State Health Plan – 2013 of the Mississippi Department of Health available on its web site in June 2012:

> "Long-term care" simply means assistance provided to a person who has chronic conditions that reduce their ability to function independently. Many people with severe limitations in their ability to care for themselves are able to remain at home or in supportive housing because they have sufficient assistance from family, friends, or community services.
>
> Mississippi's long-term care (nursing home and home health) patients are primarily disabled elderly people, who make up 20 percent of the 2025 projected population above age 65. Projections place the number of people in this age group at approximately 642,506 by 2025, with more than 186,327 disabled in at least one essential activity of daily living."

Options for long-term care presented in the Proposed 2013 State Health Plan include:

- Community-based elder care such as adult day care, senior centers, transportation, meals on wheels, meals at community locations, and home health services.
- Housing for the elderly such Personal Care Homes – Residential Living, Personal Care Home – Assisted Living.
- Continuing Care Retirement Communities.
- Retirement communities or senior housing facilities.

When a person becomes disabled relative to activities of daily living, nursing homes are often the only option. According to the Proposed State Health Plan – 2013, available on the web site of the Mississippi Department of Health in June 2012, the nursing home complement for Leake County is shown in the table to the right.

Leake County	Licensed Nursing Home Beds	Occupancy Rate	Average Daily Census
Golden Living Center - Carthage	99	95.82%	94.88
Baptist Medical Center – Leake ECF	44	99.12%	43.62
TOTAL LEAKE COUNTY	**143**	**97.47%**	**138.50**

Leake County	Bed Need	Licensed/ CON-approved Beds	Differ-ence
2015 Projected	189	143	46
2020 Projected	208	143	65

Leake County is located in Long Term Care Planning District IV The Proposed State Health Plan – 2013, shows a District IV 2015 need for 7,803 beds, with current licensed/CON approved beds of 5440/321 beds or a District IV shortage of 1,855 nursing home beds. The table to the left shows the Leake County nursing home bed need for 2015 (46 beds) and 2020 (65 beds) according to the 2013 Proposed State Health Plan

G. Mental Health

Leake County relies on mental health facilities operated by the State of Mississippi and other entities for these services, due to the fairly close driving distance.

H. Distinct-Part Geriatric Psychiatric Services

Following is information on Distinct-Part Geriatric Psychiatric Services from the Proposed 2013 State Health Plan published in June 2012:[5]

> During 2010, 38 Mississippi hospitals operated certified distinct-part geriatric psychiatric units (Geropsych DPU) with a total of 498 beds. Geropsych units receive Medicare certification as a distinct-part psychiatric unit but are licensed as short-term acute hospital beds. These Geropsych units served a total of 95,098 inpatient days of psychiatric services to 7,855 patients aged 55 and older.
>
> The industry standard formula for determining Geropsych DPU bed need is 0.5 beds per 1,000 population aged 55 and over. The Office of Policy Research and Planning, Mississippi Institute of Higher Learning, projects that Mississippi will have 861,218 persons aged 55 and older by 2015. This population will need a total of 431 Geropsych DPU beds. The optimum unit size of a Geropsych unit is 12 to 24 beds.

Using the formula, a 12 bed unit would require a 24,000 supporting population under age 55. Leake County population over 65 is 1,635 in 2010.

[5] Proposed 2013 State Health Plan, June 2013, Chapter 3, Section 107

Qualitative Analysis of Services and Delivery System Needs

The Qualitative Analysis that follows provides more insight into the human factors that are at work in the health care issues faced in Leake County.

A. Primary Data Gathering – Community Input

There is limited data available directly from disadvantaged individuals, so the assessment team decided to use an efficient data collection method by engaging a consulting firm to conduct a community survey, resulting in a report dated May 2, 2012.

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According to the report: *"Much of this information was shared with the Leake County Health Network and with the Department Directors of Leake Memorial Hospital and Nursing Home during the fall of 2011 in order to gain additional insight and to point out areas of variance between the internal perspective and the external experience or view as to local health care services. The discussions proved beneficial, and individual actions on the areas identified in these overviews have already begun."*[6]

[6] Survey of Leake County Community Residents and Health Services Employees, May 2, 2012, *The Solutions Group*.

B. Community Strengths

The community survey[7] revealed the following community strengths:

- If quality services were available, 37% would choose Baptist Medical Center – Leake for general inpatient and outpatient diagnostics. Another 18% would choose Baptist Medical Center in Jackson.

- Favorable community ratings of Baptist Medical Center – Leake services used within the last two years (ER, radiology, lab, CT, PT):
    - Nursing care
    - Friendliness
    - Admissions
    - Outpatient Services.

- Favorable community ratings of services in the community:
    - Physical therapy/rehab
    - Home health
    - Hospice
    - Durable medical equipment
    - Wound care

C. Community Perception of Health Issues Facing Leake County - Survey

The community survey[8] revealed the following community perception of health issues facing Leake County:

1. Mildly a problem:
    - Local physicians do not refer to specialists quickly enough.
    - Skill level of hospital staff.
    - Local physicians refer too quickly without seeing if treatment can be done locally.
    - Waiting time to see doctors.

2. More serious problems:
    - Lack of public information on local health care services
    - Availability of family physicians
    - Reliable 24-hour emergency care
    - Too few hospital services
    - Image of hospital
    - Health care costs
    - Lack of public support for local health care services
    - Availability of specialty physicians

[7] Survey of Leake County Community Residents and Health Services Employees, May 2, 2012, *The Solutions Group*.
[8] Survey of Leake County Community Residents and Health Services Employees, May 2, 2012, *The Solutions Group*

D. Community Opportunities to Improve - Survey

The community survey[9] revealed the following opportunities to improve:

1. For primary care visits, 36% of those surveyed sought primary care in the Jackson market.

2. For hospital services, the 457 survey participants reported that during the last two years 575 people utilized hospitals outside of Leake County for services requiring one or more nights stay. Among the primary reasons cited were:

    - Services not provided locally.
    - Expected greater quality elsewhere.
    - Lacked confidence in local capabilities.
    - Referred by physician.
    - Other, including expense, friend recommended, and away from home when hospital needed.

3. Areas needing improvement (in priority order) from the community survey were:
    - Surgery
    - Health education
    - Diagnostics
    - Alcohol/drug abuse
    - Women's services
    - Cancer treatment
    - Men's health
    - Eye care
    - Children's services
    - Ambulance
    - Wellness services
    - Leake Memorial Hospital
    - Podiatric services
    - Senior care
    - Emergency services

[9] Survey of Leake County Community Residents and Health Services Employees, May 2, 2012, *The Solutions Group*.

4. While outmigration for specialty services occurs with frequency, the need for both primary care additions and some degree of specialty services in Leake County were expressed from the combined groups (per community survey[10]):

    - ***Primary care*** listed by priority of need:

        - OB/Gyn for routine care and diagnostics
        - Family medicine
        - Pediatric medicine
        - Internal medicine
        - After hours or walk-in clinic

    - ***Specialty care*** listed by priority of need:

        - Cardiology
        - General surgery
        - Gastrointestinal
        - Orthopedics
        - Oncology
        - Urology
        - Ophthalmology
        - Diabetic management
        - Drug/alcohol/gambling addiction
        - Podiatry
        - Psychiatry
        - Other: geriatrics, dental, dermatology, Alzheimer's day care, assisted living, transportation assistance for specialty care outside county, MS specialist.

[10] Survey of Leake County Community Residents and Health Services Employees, May 2, 2012, *The Solutions Group*

E. Special Needs of Populations with Health Disparities

A focus group of community agencies hosted by Mississippi Baptist Medical Center, an affiliate of Baptist Medical Center – Leake, helped develop insight into the special needs of the various target population sector. While the focus group members primarily work in the Jackson area, the management of Baptist Medical Center – Leake believes that many of the same issues apply for these populations in Leake County. The qualitative analysis identified the following special needs of populations with health disparities.

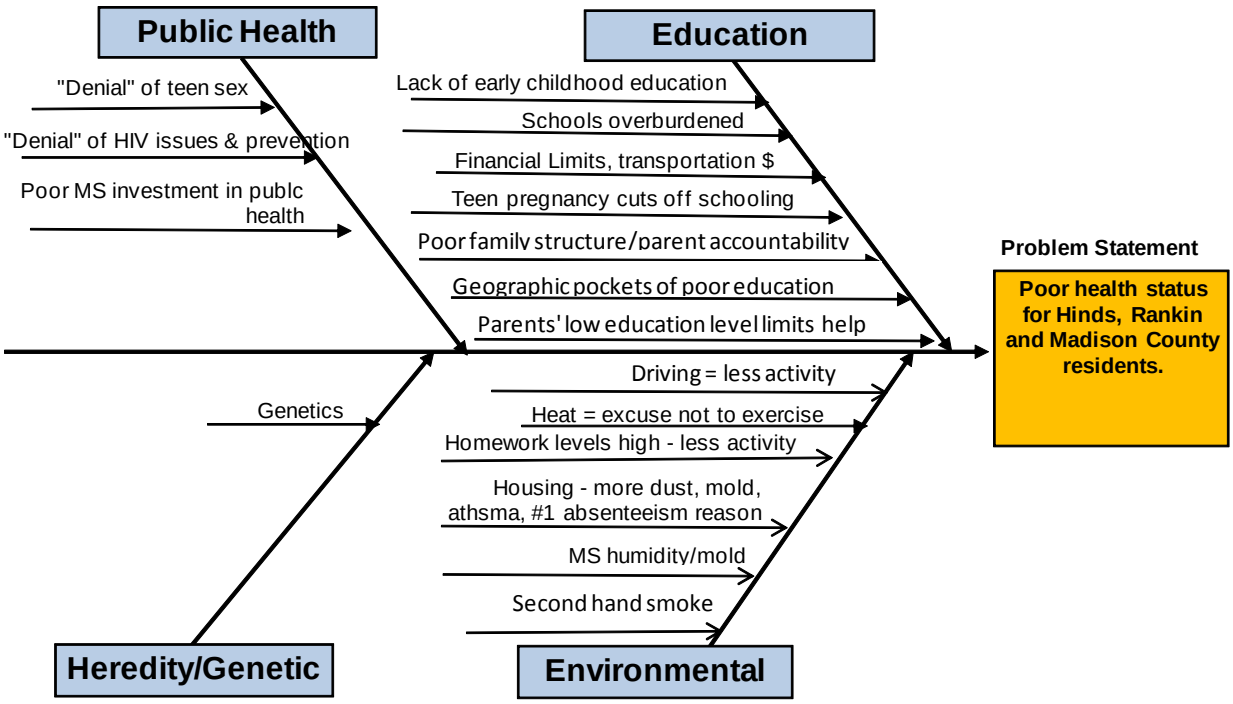
Special Needs of Populations with Health Disparities		
Population Sector	**Special Need**	**Explanation**
✓ **Children** ✓ **Minorities** ✓ **Aged**	• Health education	• All population sectors, but especially children, minorities, aged.
✓ **Children**	• Health education • Nutrition • Exercise	• With the childhood obesity epidemic, children need health education, nutrition and exercise. • With the Healthy Schools Act of 2007, public policy is in place. The Act requires 150 minutes per week of physical education and 45 minutes of health education per week for K-8.
✓ **Teens**	• Sex education	• Teen pregnancy is very high, and is contributing to infant mortality and future poverty, which is a cycle of poor health.
✓ **Low income**	• Healthy, fresh food	• It costs more to eat healthy. Even donated food is usually low cost and therefore high in fat, salt, sugar, etc.
✓ **Low income**	• Possibly, assistance with lunches in the summer.	• No school lunches in summer
✓ **Elderly**	• Elderly need access to quality long term care at home	• It is difficult for many elderly to get out for encounters with the health care providers.
✓ **Elderly**	• Lower cost of prescription drugs	• The Medicare Part D premiums cut into limited budgets. • The Part D "donut hole" hits the chronically ill elderly very hard, and they often cannot afford their medicines.
✓ **Rural elderly**	• Services closer to home • Transportation • Help in navigating the insurance and provider systems.	• Those who live in rural areas of Leake County do not have ready access geographically to the area's health care resources.
✓ **Low income** ✓ **Elderly**	• Public transportation	• Low cost public transportation is needed for the low income and elderly population.
✓ **Single parents with cancer**	• Children's health care and emotional needs	• When the single parent has cancer, there is no energy, time or money to take care of the children's health care.

Special Needs of the Low Income Sector	
Need	**Explanation**
• Education • Health education	• It is hard for these individuals to understand provider instructions and their own roles in their health care.
• Reduce obesity	• Obesity leads to heart disease, stroke, diabetes, and possibly cancer
• Mental health	• The low income person with health problems often has a sense of *hopelessness* after diagnosis of a medical condition because of no insurance and limited access to prescriptions.
• Attitude shaping	• Among the low income sector, it is considered "normal" to have diabetes and hypertension.
• Access to primary care	• The uninsured often wait to get primary care, getting care in the ER after the condition has worsened.
• Flexible payments for physician visits and prescription drugs	• The uninsured low income people often cannot go to the doctor or get their prescriptions because payment is expected at time of service.
• Socialized medicine	• For the low income uninsured, it was suggested that socialized medicine is needed. *(Note: Medicaid is available for some low income sector and FQHCs have subsidies. But there are gaps.)*
• Assistance in dealing with physical and mental health issues resulting from crime, violence and trauma.	• The low income population is subject to these issues at a higher rate than the general population.
• Smoking cessation	• Smoking is more prevalent in under-educated.
• Chemical dependency services	• There is a perception that chemical dependency is more prevalent in the under-educated.

Special Needs of the Minority Sector	
Need	**Explanation**
• Overcome cultural barriers to seeking health care services.	• Some minority sectors resist going to the doctor or hospital.
• Education and assistance with chronic disease prevention	• Minorities have disparities in cardiac, stroke, diabetes, HIV/AIDS, etc.
• Improved attitude and manner by physicians, nurses and staff	• For minorities, there is real or perceived discrimination.
• Improved cultural competency of providers	• Providers are technically trained, and may need additional training in cultural idiosyncrasies.
• For Hispanics, overcome language barriers.	• Language barriers complicate communication of both symptoms and care instructions.
• More minority providers	• Helps with the initial atmosphere in the encounter.

F. Root Causes of Poor Health Status

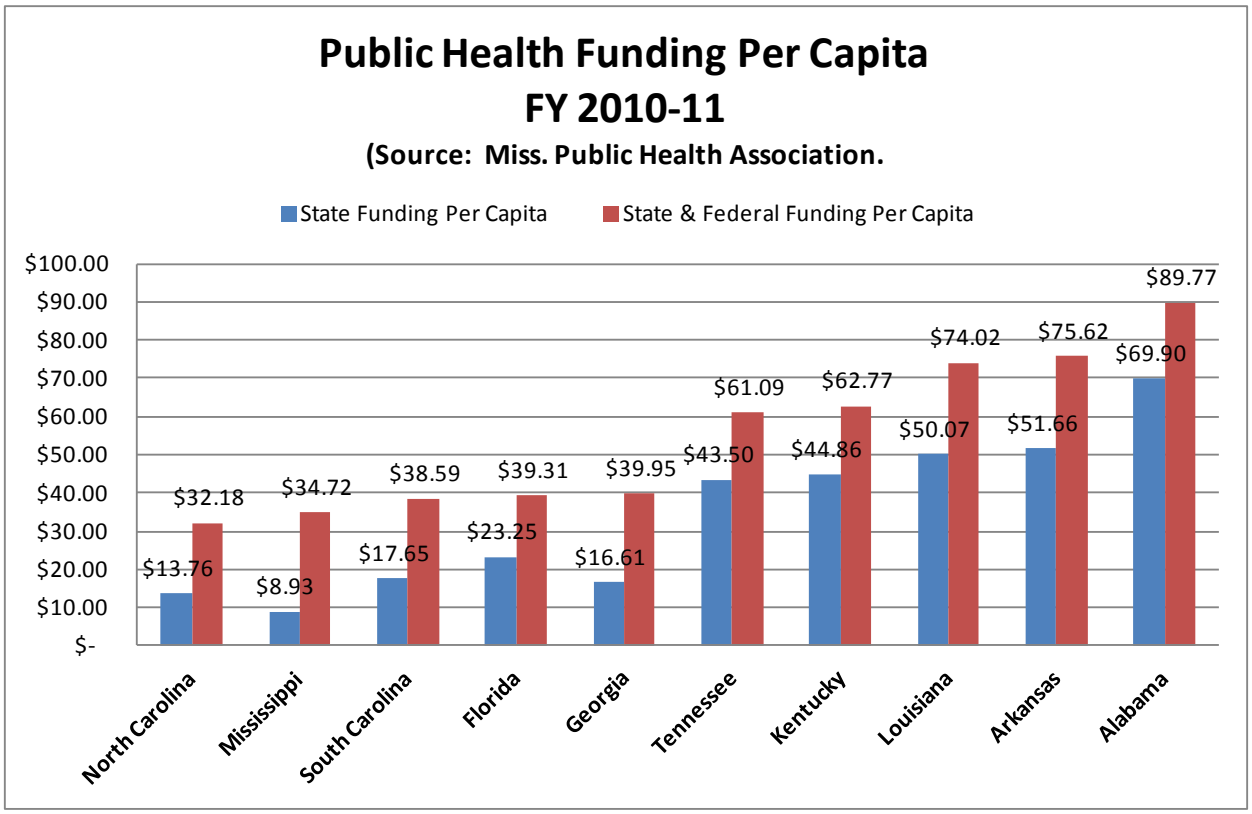
The focus group was asked for their perspectives of the *root causes* of the poor health status. These are presented below in a "fishbone" diagram, which is often used in root cause analysis. While this group focused on Hinds, Rankin and Madison Counties, the management of Baptist Medical Center – Leake believes that these root causes also apply for Leake County.



When categorized, the focus group settled into the root causes as being highly correlated to education, environmental issues, and public health issues (including "denial" of teen sex and HIV issues).

G. Public Health Funding

It was important to test the focus group's perception of limited public health funding by referring to available secondary data). Mississippi indeed does provide severely limited funding for public health, as shown by the chart below using information provided by the Mississippi Public Health Association. The chart shows that Mississippi ranks lowest in per capita state funding among southeastern states at $8.93, and second lowest in total state and federal per capita funding at $34.72. By contrast, Alabama funded public health at $89.77 total per capita, Tennessee at $61.09, Louisiana at $74.02 and Arkansas at $75.62.



Priority Health Service Issues/ Gaps

Why do these gaps and variances exist? There are several major reasons, including:

- Demographics of Leake County, which vary from Mississippi and the U.S. by race, gender and age categories.
- Low educational levels.
- Sedentary lifestyles. This lifestyle may be partially driven by fairly geographically sparse population coupled with minimal public transportation, resulting in more driving and less walking than other urban areas.
- Mississippi's hot, humid climate, which contributes somewhat to certain respiratory diseases, including asthma.
- Number of health care providers (shortage area).
- Access to health care, expressed in the rate of uninsured (or as a factor of living below poverty income levels).
- Mississippi's rank as lowest in per-capita state public health funding among southeastern states.

Community, Public Health and Provider Solutions

In Leake County, there is a shortage of available primary care and specialty services – both statistically and as a community perception. However, roads are generally good so that geography itself is not a major barrier to care – and a good bit of outmigration does occur. So, conditions associated with low income, race and age (including children and seniors) appear to be the more significant barriers. In remote areas of Leake County, the community should pay special attention to transportation and access needs of these population sectors.

The Community Health Needs Analysis has identified the possible community strategies below to address the community health status needs gap based on the target sectors and health status issues.

Target Sectors	Health Status Issue	Community/Public Health Solutions	Provider Solutions
☐ **All**	➢ **Accidents**	• Support ambulance service in all areas of the County. • Study accident patterns to improve roads and intersections.	• Participate in Statewide Trauma Network
☐ **Low income** ☐ **Minorities** ☐ **Seniors**	➢ **Heart disease** ➢ **Diabetes** ➢ **Stroke**	• Health education • Diabetes education • Nutrition education • Exercise • Smoking cessation	• Adequate primary care supply • Specialty physicians available • Hospital service lines in these areas • Collaboration in community solutions
☐ **Teens**	➢ **Infant mortality**	• Health education • Sex education • Exercise • Smoking cessation	• Adequate pre-natal service supply • Linkage to Jackson medical center with OB Center of Excellence. • Collaboration in community solutions
☐ **Low income** ☐ **Minorities** ☐ **Seniors** ☐ **Children**	➢ **Access to care**	• Insurance expansion • Socialized (subsidized) health care services • Subsidized or affordable prescription drug payments • Financial assistance (flexible payments & charity) • Transportation	• Participation in insurer provider networks. • Financial assistance (flexible payments & charity) • Collaboration in community solutions.

Conclusions

In keeping with our goals, Baptist Medical Center – Leake intends to, within our statements of Mission, Vision and Values, improve the population health status in Leake County. Baptist Medical Center – Leake intends to:

- ✓ Continually improve existing clinical service lines that are within core competencies of Baptist Medical Center - Leake.

- ✓ Evaluate the feasibility of an expanded facility on the campus of Baptist Medical Center – Leake to serve as the hub to develop expanded health care services to citizens of Leake County.

- ✓ Improve the integration of clinical services between Baptist Medical Center – Leake and Mississippi Baptist Medical Center in Jackson to make the continuum of care more seamless.

- ✓ Explore options and implement interventions to narrow health disparities, thereby improving the overall health status of the citizens of Leake County.