



Earl R. Wilson, Founding Chairman

**METHODIST**  
REHABILITATION CENTER

## **COMMUNITY HEALTH NEEDS ASSESSMENT**

**Approved by the Board of Trustees on May 23<sup>rd</sup>, 2013**

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## Executive Summary

Methodist Rehabilitation Center (MRC), located in Jackson, Mississippi, helps people recover after a stroke, brain or spinal cord injury, post-traumatic and post-surgical orthopedic conditions, or chronic pain and provides long-term care for persons with severe disabilities. MRC opened its doors in 1975 to fulfill a vision of the founders who recognized Mississippi's need for comprehensive medical rehabilitation services.

Methodist Rehabilitation Center serves people across the state of Mississippi, with the largest concentration of patients residing in the three-county Jackson metropolitan area. This broad service area is driven by two factors: The Jackson area is the largest hub for health care in the state, and MRC is the major provider of rehabilitation services across different areas of specialty. The community served by MRC includes adults and adolescents above 13 years of age of all socio-economic backgrounds, consistent with the demographics of the state.

For many years, MRC has conducted an annual community benefit assessment and presented a report to the center's Board of Trustees. The reports demonstrated the various ways the institution fulfills its mission as a 501(c)(3) not-for-profit hospital. The mandatory Community Health Needs Assessment now allows Methodist Rehabilitation Center to formalize and expand this process.

The Community Health Needs Assessment was conducted between July, 2012 and April, 2013. The main input was provided by patients, employees and community representatives with expertise in public health and various not-for-profit organizations that serve low-income and disadvantaged populations. Additional information came from public databases, reports, and publications by state and national agencies. This Community Health Needs Assessment and the Implementation Plan were approved by the MRC's Board of Trustees on May 23<sup>rd</sup>, 2013.

Based on the adopted principles for prioritizing community health care needs, the following key priorities were identified:

1. Utilization of community-based primary health care
2. Provision of family/caregiver education and support
3. Promotion of healthy lifestyle, fitness and recreation

The Implementation Plan describes in detail programs and activities that will address these priorities over the next three years. Both documents are available at MRC's website [www.methodistonline.org/CHNA](http://www.methodistonline.org/CHNA) where the progress will be reported on a regular basis.

*We would like to express our sincere gratitude to all participants who provided input for this assessment. We look forward to addressing the identified needs.*



## Introduction

### Mission Statement

*“In response to the love of God, Methodist Rehabilitation Center is dedicated to the restoration and enhancement of the lives of those we serve. We are committed to the excellence and leadership in the delivery of comprehensive rehabilitation services.”*



### About Us

In 1975, Methodist Rehabilitation Center (MRC) opened its doors to fulfill a vision to provide comprehensive medical rehabilitation services for all Mississippians. The center was created by four visionary founders, led by the late Earl R. Wilson, who served as chairman of the board from the center's inception until his death in 2000.

MRC's primary facility is a seven-floor, 124-bed inpatient hospital located on the campus of The University of Mississippi Medical Center. The entire facility and clinical programs are designed specifically to help patients restore abilities lost to injury or illness. Patients of similar injury types are housed on the same floor and share a dedicated staff of nurses and therapists. This promotes specialized expertise among staff, and the patients are encouraged as they recover with others overcoming similar challenges.

In 2005, MRC opened Methodist Specialty Care Center, a 60-bed, long-term residential center for younger adults with severe disabilities. In addition, MRC operates numerous clinics across Mississippi and Northeast Louisiana to provide outpatient rehabilitation services.

Most all patients admitted to MRC's main hospital are transferred from acute care hospitals located throughout Mississippi and the region. Besides providing inpatient and outpatient care, MRC serves the community through an array of outreach programs ranging from wheelchair sports clinics and competitions, monthly support groups, education events, as well as a clinical research program that allows patients to be part of research discoveries.

MRC is academically affiliated with The University of Mississippi Medical Center and serves as a teaching facility for medical students and residents, as well as nursing, physical therapy, occupational therapy, and speech and language pathology students. Also, MRC serves as an internship site for undergraduate students from the major universities in the state.

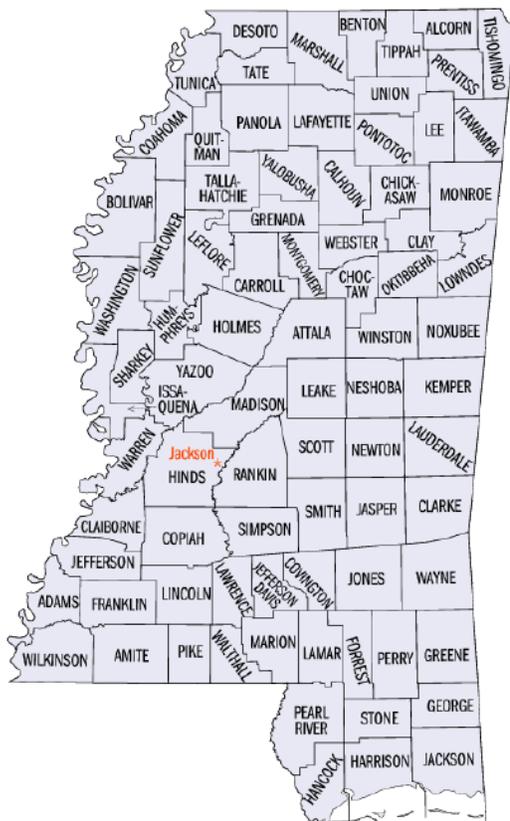
## Community Served

### Definition

MRC serves people across the entire state of Mississippi. Due to our geographic location, the majority of the community served resides in central Mississippi. This includes the city of Jackson and Hinds, Rankin and Madison counties, which is the state’s most populated area. Beyond this Tri-County area, MRC serves a significant number of people from other, contiguous counties within a ~100 mile radius. Such a widespread catchment area is driven by the fact that the Jackson area is the major hub for health care across the entire state and by recognition of MRC as the major provider of rehabilitation services (inpatient and outpatient) across different areas of specialty.

The target population served includes male and female adults and adolescents age 13 and older from ethnic and socio-economic backgrounds that are representative of the state.

Our specialty area further defines the community served to those in need of comprehensive medical rehabilitation for various neurologic and orthopedic conditions, primarily acquired brain and spinal cord injuries or diseases, post-traumatic/post-surgical orthopedic conditions, chronic pain and long-term specialty care for the most severely disabled.



### Description

#### Mississippi Demographics

According to the *US Census Bureau*, the population of Mississippi is nearly 3 million (52% women, 48% men). The median age is 35 years (75%  $\geq 18$  years, 13%  $\geq 65$  years.) Caucasians represent 60% of the population, African-Americans 37%, and Hispanics or Latinos 2.7%. The majority of households consist of married-couple families (47%) followed by single-parent families (23%). Among the people 25 or older, 80% have at least a high school diploma and ~20% have a bachelor’s degree or higher.

The median household income is ~\$38,700 (\$52,700 nationally) and the median family income is ~\$46,000 (\$62,000 nationally). About 22% live below the federal poverty level (14% nationally) – mainly children under 5 years (34%) followed by adults 18 to 34 years (25%). About 15% are enrolled in the supplemental nutrition assistance program (8.5% national level).

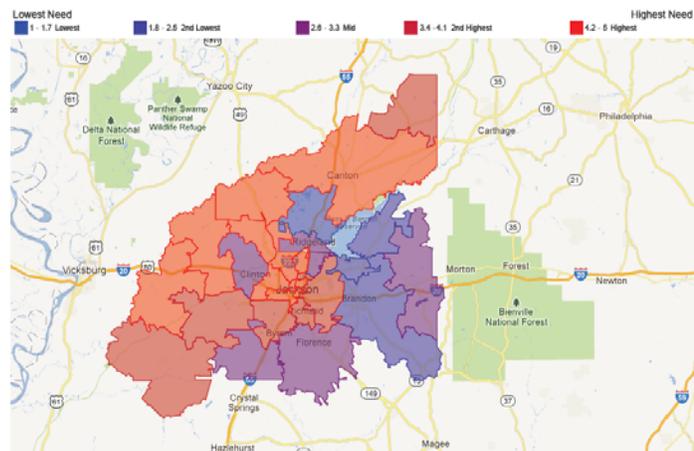
The population is expected to grow to about 3.16 million by 2020 and 3.25 million by 2025. The second and third largest increase is projected for Madison County (19%) and Rankin County (17%), which are part of MRC’s primary service area.

### Mississippi Health Priorities

It is well known that Mississippi ranks among the lowest in the U.S. in overall health. The main health problems in adults are hypertension (35% prevalence), obesity (35%), and type 2 diabetes (12%). These lead to cardio-vascular diseases including stroke, the main cause of death in the state (41% in 2001 or 31% above the national level). Over the next 20 years, obesity is expected to contribute to over 400,000 of new cases of type 2 diabetes, over 750,000 new cases of hypertension and over 800,000 new cases of coronary heart disease and stroke in Mississippi.

### Barriers to Health Care Access

The *Community Need Index*, developed by *Dignity Health* and *Truven Health Analytics*, reflects the barriers to health care access in a given community based on socio-economic indicators (income, ethnicity/language, education, insurance, housing). The average score is assigned to each ZIP code, from 1.0 (lowest) to 5.0 (highest socioeconomic barriers). The latest available scores for Mississippi range from 2.9-5.0. The “highest need” (score 4.2-5.0) was projected for 47 counties with 1.4 million people (48% of total population), “high need” (score 3.4-4.1) for 30 counties with 1.1 million people (38%), and “moderate need” (2.9-3.1) for the remaining 5 counties with 400,000 people (14%). The barriers accounted for by the *Community Need Index* also apply to the communities primarily served by MRC (figure).



### Uninsured Population

About 530,000 Mississippians (18%) are without insurance. There are somewhat more uninsured men (54%) than women (46%). Most uninsured belong to the age group of 18-44 years (62%), which accounts for 37% of the total population. The rate of uninsured among African-Americans (44%) is proportionally higher than among Caucasians (50%) given that the former represent 38% and the latter 60% of the entire Mississippi population. About 90% of all uninsured have a high school diploma or less and 72% are unmarried. Households with the woman employed (full or part-time) and no husband present make up for the largest percentage of uninsured (16%). In terms of income, 17% of the uninsured earn less than \$15,000, 15% between \$15,000 and \$24,999, and 11% between \$25,000 and \$34,999. It is estimated that ~23% of uninsured are eligible for Medicaid but remain uninsured, which is representative of the entire Mississippi population (22%).

### Health Problems Leading to MRC Admissions

Health problems that lead to admission to MRC result from trauma or diseases affecting the nervous system (stroke, spinal cord injury, brain injury) or musculo-skeletal system (amputation, broken bone, joint replacement). Trauma remains the leading cause of death for Mississippians age 1 to 44 (4<sup>th</sup> in the US). The population sustaining a trauma increased three-fold from 2000 (8,500) to 2010 (25,500). As a result, many people are admitted for rehabilitation after traumatic brain or spinal cord injury or broken or lost limb. The number of post-traumatic cases admitted to MRC is likely to increase due to a decline in mortality and the population growth.



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## **COMMUNITY HEALTH IMPLEMENTATION PLAN**

**JULY 1, 2013 – JUNE 30, 2016**

**Approved by the Board of Trustees on May 23<sup>rd</sup>, 2013**

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## Introduction

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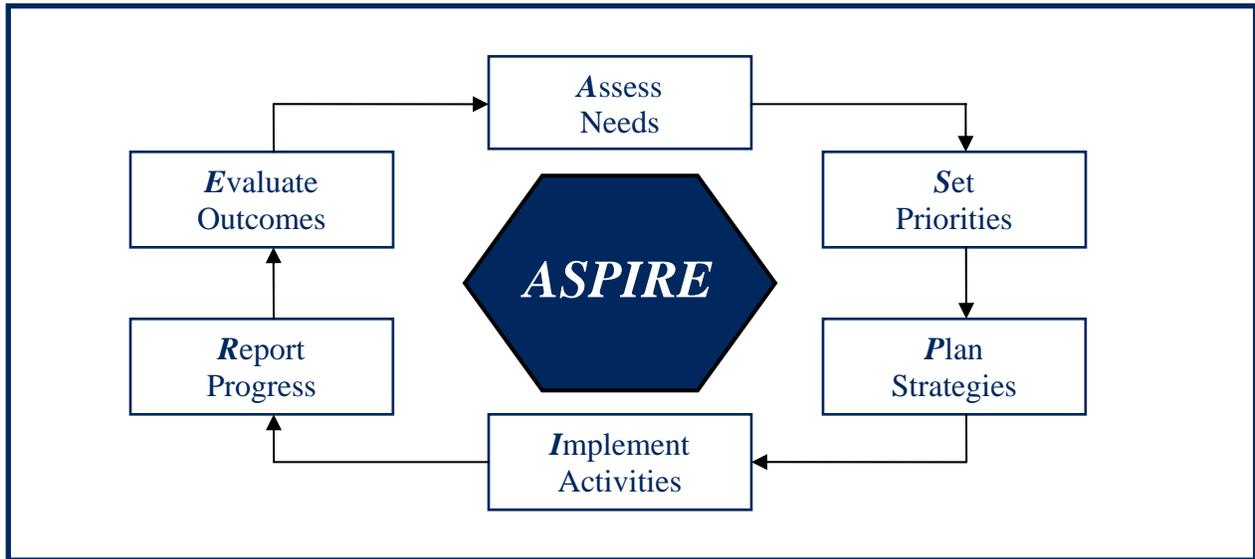
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## Plan

### Approach

We modified the ASPIRE model for Community Health Needs Assessment and development of Implementation Plan. The steps are illustrated below.



### Specific programs

1. UTILIZATION OF COMMUNITY-BASED PRIMARY HEALTH CARE  
**Goal:** Overcome deficiencies in the utilization of primary health care services. The premise is that maintenance of health and prevention of secondary complications after stroke, spinal cord injury or brain injury can best be achieved through improving utilization of community-based primary health care services because of the rural nature of the State of Mississippi and difficulties with transportation.
2. PROVISION OF FAMILY/CAREGIVER EDUCATION AND SUPPORT  
**Goal:** Enhance the content and broaden the delivery of services related to education and support of families and caregivers across the continuum of care, starting with the screening for inpatient admission, during inpatient rehabilitation, and after community discharge.
3. PROMOTION OF HEALTHY LIFESTYLE, FITNESS AND RECREATION  
**Goal:** Create an environment conducive of broader participation of people with stroke, spinal cord or brain injury in community-based activities that promote healthy lifestyle, fitness, and recreation in order to improve or maintain their physical health and overall well-being.

The next 3 tables provide details about each program. The specific activities were selected based on the high/low grid of problems and solutions.

## 1. Utilization of Community-Based Primary Health Care (PHC)

#	Activity	Target	Timeframe	Output	Desired Outcome	Prospective Partners	MRC Personnel
1	Assess prior utilization of community-based PHC	Representative sample of admitted patients	Yrs 1-3 (year around)	Survey results	Identify rate & demographic indicators of PHC utilization	None	Outreach Representatives; Case Managers; Research
2	Promote utilization of community-based PHC services	All patients admitted to MRC	Yrs 1-3 (year around)	Print/website material; In-person interactions	≥90% of charts sampled indicate provision of information	None	Case Managers; Discharge Planners; Social Workers
3	Assess post-discharge utilization of community-based PHC	Sample of patients surveyed at 3 months after discharge	Yrs 1-3 (year around)	Results of follow-up survey	≥75% of scheduled visited PHC provider after discharge	None	Performance Improvement; Research
4	Assess use of PHC available for low income persons	Persons with stroke/SCI/BI/ amputation	Annually (Yrs 2-3)	Database results	Identify rate, demographics, reasons for PHC services	MPHCA; MSDH	Research
5	Educate PHC providers into unique needs of persons we serve	Primary care physicians and allied professionals	Yrs 2-3 (annually)	Program evaluation (objectives, satisfaction)	>80% rate program objectives as met/satisfactory	MPHCA; Miss. Acad. of Family Phys.; UMMC	Education Department; Physicians; Nurses
6	Explore need & feasibility for developing electronic PHR	Patients; IT & Mobile Technology professionals	Yrs 1-3 (year around)	Results of surveys & interviews	>50% perceive the need/foresee benefits of PHR	IT & Mobile Technology providers	IT; Human Resources; Research

MRC- Methodist Rehabilitation Center; MPHCA-Mississippi Primary Health Care Association; MSDH- Mississippi Department of Health; UMMC- University of Mississippi Medical Center; PHR- personal health record; IT- Information Technology; N/A- not applicable.

## 2. Provision of Family/Caregiver Education and Support

#	Activity	Target	Timeframe	Output	Desired Outcome	Prospective Partners	MRC Personnel
1	Educate community about the role of caregiver during rehabilitation	Referral sources; Family members; Community at-large	Yrs 1-3 (year around)	Print/website/public media material; In-person interactions;	≥90% of charts sampled indicate caregiver was identified, if needed	None	Outreach Representatives; Nurses; Case Managers; Therapists
2	Enhance content/format of Resource & Education Guide	Patients; Caregivers; Family members	Yrs 1-3 (year around)	Print/website material; Survey at discharge and 3-month follow-up	≥80% rate Guide as useful/user-friendly	None	Nurses; Case Managers; Therapists
3	Enhance caregiver education	Family members	Yrs 1-3 (year around)	Print/website material; In-person interactions; Survey results	>80% rate education program as satisfactory	None	Nurses; Case Managers; Therapists
4	Increase awareness of community-based services for persons with disabilities	Patients; Caregivers; Family members	Yrs 1-3 (year around)	Print/website material; In-person interactions	≥90% of charts sampled indicate provision of information	State/non-profit agencies serving persons with disabilities	Nurses; Case Managers; Therapists; Social Workers
5	Enhance peer-support for patients and caregivers	Patients; Caregivers; Family members	Yrs 1-3 (monthly to quarterly)	Program evaluation (objectives, satisfaction)	>80% rate program objectives as met/satisfactory	Hospitals & non-profits providing peer-support	Nurses; Therapists; Psychologist; Sport & Recreation

### 3. Promotion of Healthy Lifestyle, Fitness and Recreation

#	Activity	Target	Timeframe	Output	Desired Outcome	Prospective Partners	MRC Personnel
1	Increase awareness of community-based resources for fitness & recreation	Patients; Family members	Yrs 1-3 (year around)	Print/website material, In-person interactions	≥90% of charts sampled indicate provision of information	Community-based fitness facilities	Therapists, Sport & Recreation
2	Educate fitness trainers how to meet needs of persons we serve	Fitness professionals; Undergraduate exercise science students	Yrs 2-3 (annually)	Courses, Lectures	>80% rate program objectives as met/satisfactory	Community-based fitness facilities & undergraduate exercise science programs	Education Department; Therapists; Sport & Recreation
3	Promote participation of persons we serve in community-based sports & recreation events	Patients; Family members; Events organizers	Yrs 1-3 (year around)	Print/website material, In-person interactions	Increased participation from Yr 1 to Yr 3	Non-profit agencies serving persons with disabilities	Sport & Recreation

### Implementation Strategy

We will create a team for each selected priority. The team will be responsible for planning and implementation of activities described under the respective priorities. The team leader will select other members of the team among the MRC employees based on their professional background and interests with respect to specific program activities. The team will meet approximately every four months to plan and implement activities, review progress, identify barriers and propose solutions.

The current Steering Committee will transform into the Oversight Committee that will oversee and coordinate activities across the three priorities. The Oversight Committee will delegate a member to each team, who will work closely with other team members on plan implementation. The Oversight Committee will meet on a quarterly basis to review the overall progress and guide each team activities. The Oversight Committee will report to the Executive Committee of the MRC Board of Trustees on a quarterly basis and also be responsible for developing interim reports that will be reviewed by the MRC Board of Trustees on an annual basis.

### Anticipated Impact

We anticipate that the selected priorities will result in short- and long-term community health benefits. The short-term benefits will be reflected in increased interactions with community-based primary health care providers, increased reliance on and satisfaction with the Resource and Education Guide provided to each member of the community that we serve, and increased utilization of adaptive sports, fitness and recreation opportunities. This, in turn, is expected to result in long-term community health benefits, such as improved day-to-day disease management, prevention of secondary complications, improved overall well-being, and thereby better quality of life.

### Planned Collaboration

We plan to partner with different state and non-profit agencies and organization, as appropriate for each selected priority. The prospective partners include, but are not limited to, Mississippi State Department of Health, Mississippi Primary Health Care Association, Mississippi Academy of Family Physicians, University of Mississippi Medical Center, Living Independence for Everyone, Mississippi Paralysis Association, Metro Area Community Empowerment, major fitness facilities in the area and organizers of recreational programs.

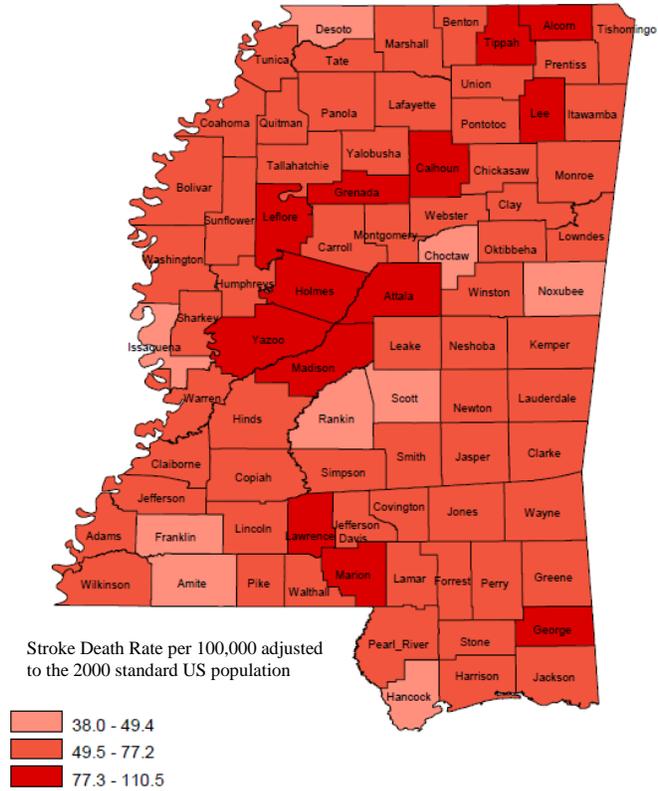
## **Health Needs Not Addressed**

Based on the adopted guiding principles and the criteria for prioritizing identified health care needs, we chose not to address the need to improve access to various modes of transportation for the persons we serve given the scope of the problem and the likelihood that any solution that we can offer may have true and lasting impact. Similarly, we opted not to address issues related to a coordination of post-discharge rehabilitation care because of the existence of other entities that primarily focus on these needs, such as Independent Living or Vocational Rehabilitation under Mississippi Department of Rehabilitation Services.

High prevalence of diabetes, obesity, and hypertension translates into a high rate of stroke in Mississippi. It is estimated that each year about 5,000 Mississippians suffer a stroke for the first time and another 2,000 a recurrent stroke. Stroke occurs twice more often in Mississippians with income of less than \$25,000 (~7%) than in those who earn more than \$25,000 (~3.5%).

Stroke is the fifth leading cause of death in Mississippi (5% in 2010) and it is about 50% higher in African-Americans than Caucasians (70% vs. 45%). Although mortality from stroke is on the decline, it is the highest in several counties north and south of Hinds County where MRC is located.

Stroke leaves ~2,000 Mississippians disabled each year. The percent living with stroke (~4%) has been steady from 2005 to 2011. Better emergency care and survival means more disabled people in need of comprehensive rehabilitation services.



*Demographics of People Admitted to MRC*

In fiscal year 2012 (July 1<sup>st</sup>, 2011- June 30<sup>th</sup>, 2012), 1,098 Mississippians were admitted to MRC inpatient rehabilitation. Of those, 55% were women and 45% men; 63% were Caucasians and 37% African-American; 45% were married, 22% widowed, 19% single, 12% divorced. These demographics are representative of the entire state of Mississippi.

The people admitted to MRC represent 75 of 82 Mississippi counties (91%). Before admission, 52% resided in three counties of the Jackson Metro area and an additional 38% within a radius of 120 miles. The most frequent reasons for admission were stroke (33%), leg fracture or joint implants (20%), traumatic or non-traumatic brain injury (14%) and traumatic or non-traumatic spinal cord injury (11%). These conditions represent almost 80% of all admissions. The most common payer sources were Medicare (63%), Blue Cross Blue Shields (18%), Medicaid/Financial Assistance (11.5%), and other commercial insurance (7%).

*Rehabilitation facilities outside of MRC primary service area*

Other providers of comprehensive rehabilitation outside of MRC primary service area are in the northern counties (De Soto, Washington, Lee) and southern counties (Forrest, Harrison). They are two or more hours driving distance from MRC and account for a combined 57% of all licensed rehabilitation beds in the state. They provide rehabilitation as a unit within the general hospital. Based on the latest available report across the facilities (Mississippi Department of Health, 2007), they combined to admit 24% of all cases of traumatic spinal cord injury, 32% of all cases of traumatic brain injury, and 63% of all cases of stroke in need of inpatient rehabilitation.

## Process and Methods

### Overview

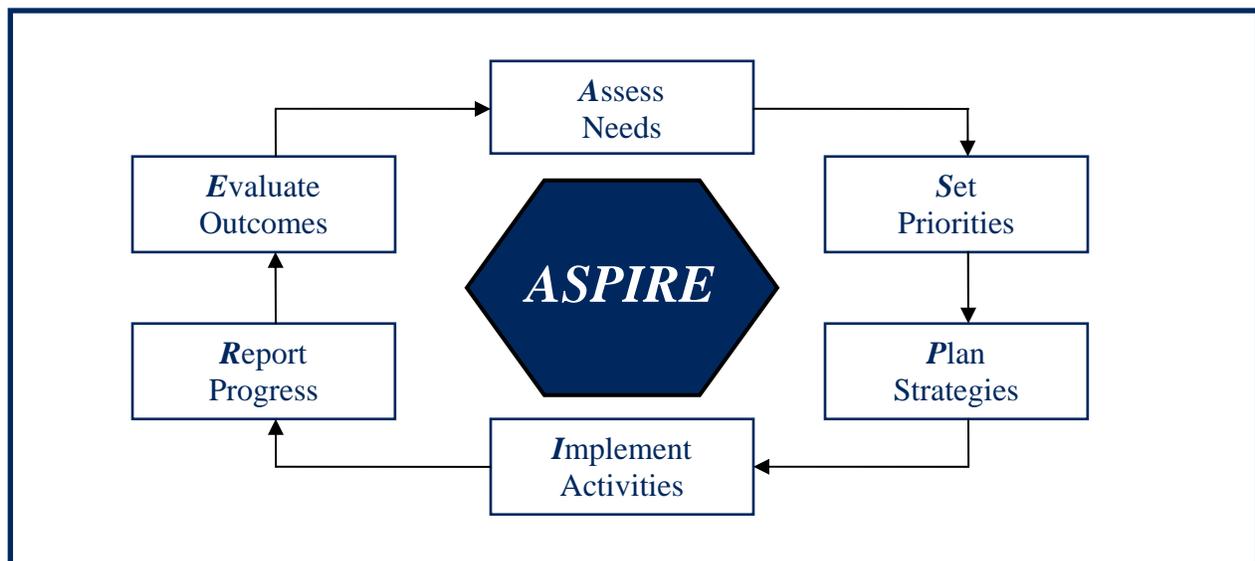
For many years, MRC has conducted an annual community benefit assessment and presented a report for adoption at the annual meeting of its Board of Trustees. These reports evaluated and demonstrated the various ways the institution fulfills its mission as a not-for-profit hospital. The IRS Notice 2011-52 requiring a Community Health Needs Assessment now allows MRC to formalize and expand this process.

The process of developing a CHNA began in the summer of 2012 after a member of the hospital administration attended a session at a professional meeting dedicated to CHNA and reporting requirements. During the fall of 2012, the hospital administration developed a strategy, defined milestones, and drafted the timetable. In December of 2012, the plan was refined and finalized. In January of 2013, the MRC President & CEO formed a CHNA Steering Committee including MRC’s Chief Executive Officer, Chief Financial Officer, VP of Legal Affairs, Director of Research, and the Director of the center’s Wilson Research Foundation. The Steering Committee was charged with developing, conducting, and reporting the CHNA and the Implementation Plan.

From January to May of 2013, the Steering Committee met on a weekly basis to define specific goals, action steps, and milestones; review existing data and reports; plan and conduct focus groups and interviews; analyze and interpret gathered data; define CHNA priorities; and finally create the CHNA report and Implementation Plan. The planned course of action was discussed and approved by the MRC Board at the February 28<sup>th</sup>, 2013 meeting. The progress was overseen by the Executive Committee of the Board at their monthly meetings. The CHNA and Implementation Plan were adopted by the MRC Board at its May 23<sup>rd</sup>, 2013 annual meeting.

### Approach

We modified the ASPIRE model, commonly used in social sciences, for developing CHNA and the Implementation Plan. The steps are illustrated below.



## Data Sources

*Primary sources* of information refer to data collected by MRC for this CHNA, for the purpose of peer-review research conducted by the MRC researchers, and for improving delivery of rehabilitation services. The participants were current/previous patients of MRC or their family members and employees of MRC (for demographic info, see a separate section below).

PRIMARY DATA		
Type	Topic (Date)	Description
Focus group	Spinal Cord Injury (Feb 19 <sup>th</sup> , 2013)	6 persons discussed issues related to physical activity and exercise after spinal cord injury
Focus group	Stroke (March 14 <sup>th</sup> & 28 <sup>th</sup> 2013)	4 persons and 4 family members discussed issues along the continuum of care after stroke
Focus group	Brain Injury (April 6 <sup>th</sup> , 2013)	2 persons discussed issues faced along the continuum of rehabilitation after brain injury
Focus group	MRC System of Care (March 3 <sup>rd</sup> , 4 <sup>th</sup> , 8 <sup>th</sup> 2013)	14 employees discussed comprehensive rehabilitation services provided by MRC
Research Publication	Information needs of people with spinal cord injury (2003, 2008)	Mail survey to spinal cord injury community previously served by MRC about perceived information needs and access to resources
Research Publication	Oral health in people with spinal cord injury (2013)	In-person survey and examination of oral health in people with spinal cord injury

*Secondary sources* came from publicly accessible databases, reports, and publications by various state and national agencies that were extensively searched for the purpose of CHNA.

SECONDARY DATA – MISSISSIPPI		
Source	Title (Year)	Summary
Mississippi Insurance Department	Mississippi Health Benefit Exchange Report (2011)	Insights for designing and implementing health benefit exchange in Mississippi under the Patient Protection and Affordable Care Act
		<a href="http://www.mid.ms.gov/pdf/Health_Benefit_Exchange_Final_Report.pdf">www.mid.ms.gov/pdf/Health_Benefit_Exchange_Final_Report.pdf</a>
Mississippi State Department of Health (MSDH)	Mississippi State Plan for Heart Disease and Stroke Prevention and Control (2004-2013)	Call for action to improve cardiovascular disease outcomes, including from stroke, at multiple levels in Mississippi
		<a href="http://www.msdh.ms.gov/msdhsite/_static/resources/1670.pdf">www.msdh.ms.gov/msdhsite/_static/resources/1670.pdf</a>
Mississippi State Department of Health (MSDH)	Mississippi Stroke System-of-Care Plan (2012)	Plan for developing statewide tiered system of stroke care
		<a href="http://www.mshealthcarealliance.org/wp-content/uploads/2012/06/StrokeSystem_of_Care_Plan">www.mshealthcarealliance.org/wp-content/uploads/2012/06/StrokeSystem_of_Care_Plan</a>
Mississippi State Department of Health- Trauma Care System	Fact Sheets (2012)	The only functioning mandatory Trauma System in the country nationally recognized as a model Trauma System; the registry includes injury data captured by 92 facilities in the state
		<a href="http://msdh.ms.gov/msdhsite/_static/resources/4648.pdf">http://msdh.ms.gov/msdhsite/_static/resources/4648.pdf</a>
Board of State	Mississippi Population	Projections of an increase in Mississippi

SECONDARY DATA – MISSISSIPPI		
Institutions of Higher Learning	Projections 2015, 2020, and 2025	population by county, sex and race
	<a href="http://www.mississippi.edu/urc/downloads/PopulationProjections.pdf">www.mississippi.edu/urc/downloads/PopulationProjections.pdf</a>	

SECONDARY DATA - NATIONAL		
Source	Title (Year)	Summary
US Census Bureau	State & County QuickFacts (2011)	Summary of demographic and socio-economic statistics for the state of Mississippi
	<a href="http://quickfacts.census.gov/qfd/states/28000.html">http://quickfacts.census.gov/qfd/states/28000.html</a>	
Dignity Health	Community Need Index- Interactive web application (2012)	Community Need Index scores the severity of health disparity for every zip code in the US and demonstrates the link between health need, access to care, and preventable hospitalizations
	<a href="http://www.cni.chw-interactive.org/">www.cni.chw-interactive.org/</a>	
Centers for Disease Control and Prevention	Behavioral Risk Factor Surveillance System survey (2011)	The largest on-going telephone survey system tracking health conditions and risk behaviors in the United States yearly since 1984
	<a href="http://www.cdc.gov/brfss/">www.cdc.gov/brfss/</a>	
Centers for Disease Control and Prevention	Outpatient Rehabilitation Among Stroke Survivors -- - 21 States and the District of Columbia, 2005	Report from 21 States, including Mississippi, indicates lower than expected utilization of outpatient rehabilitation services among stroke survivors
	<a href="http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5620a4.htm">www.cdc.gov/mmwr/preview/mmwrhtml/mm5620a4.htm</a>	
Model Systems Knowledge Translation Center	Multiple documents	Summarizes research, identifies health information needs, and develops information resources related to traumatic brain injury
	<a href="http://www.msktc.org/tbi">http://www.msktc.org/tbi</a>	
National Spinal Cord Injury Statistical Center	Spinal Cord Injury Facts and Figures at a Glance (2012)	Largest source of information about causes, demographics, and consequences of traumatic spinal cord injury in the US
	<a href="http://www.nscisc.uab.edu/PublicDocuments/fact_figures_docs/Facts%202012%20Feb%20Final.pdf">www.nscisc.uab.edu/PublicDocuments/fact_figures_docs/Facts%202012%20Feb%20Final.pdf</a>	

Analytic Methods

Quantitative and qualitative analytic methods were applied. Quantitative analyses included descriptive summary statistics, group comparisons, and trend analyses. Qualitative analyses of information gathered through interviews and focus groups followed the principles of thematic content analysis. The analyst reviewed the transcript of audio records to identify and then group common themes. The supportive key verbatim comments were included, as appropriate.

Information gaps

Information gaps were found in the areas of access to specialized medical services (e.g., women’s health) and utilization of emergency room services as a substitute for primary care.

## Input from Employees

The following MRC employees participated in CHNA as the Steering Committee members or panelists in the focus groups and interviews (listed in alphabetical order).

MRC PARTICIPANTS	
STEERING COMMITTEE	
Mark A. Adams President & CEO	Gary Armstrong Chief Financial Officer
Chris Blount Director, Wilson Research Foundation	Matthew L. Holleman III Chairman, MRC Board of Trustees
Dobrivoje S. Stokic, MD, DSc Director of Research	Tammy Voynik VP of Legal Affairs
PANELISTS	
Ruthie Adams, RN Case Manager	Ginny Boydston, BS Director, Sports & Recreation
Sherry Carnegie, RN Community Outreach Representative	Stephanie Clark, MSW Social Worker
Connie Flanagan, RN Community Outreach Representative	Susan Geiger, PT Physical Therapist
Samuel Grissom, MD Medical Director	Luly Johnson, BS Community Outreach Representative
Mollie Kinard, RN Community Outreach Representative	K.K. Ramsey, CFNP Nurse Practitioner
Dianne Sanders, RN Case Manager	Joel Shows, RN Community Outreach Representative
Daisy Ward, RN Community Outreach Representative	Audrey Wedgeworth, BS Operation Director, Methodist Pain & Spine

MRC employees who participated in the focus groups and interviews ranged in age from 30 to 60 years (average 46 years). The majority accounted for women (12), those with a nursing degree (8), more than 5 years of experience in rehabilitation settings (10), and employed for more than 5 years at MRC (9).

## Input from Patients/Family Members

The participants in focus groups representing the community we serve included 12 persons who suffered stroke, brain, or spinal cord injury and 4 family members. Their age ranged from 19 to 79 years (average 52 years). The majority accounted for men (10), those with some college degree (12), retirees (6) or unemployed people (5), and covered by Medicare (5) or private insurance (5).

## Input from Community Representatives

### Methods

Representatives of the community for interviews were identified through internal and external sources. Invitations were sent via email, if available, or by phone call. Personal contacts were sought for those who did not respond to emails or phone calls. The response rate was 100%. Interviews were conducted in-person and lasted about 60 minutes. As with the focus groups, thematic content analysis was used to identify and cluster common themes.

### Sources

Information about the community representatives interviewed is presented in the table below.

Representatives of the Community Who Provided Input				
Date	Name/Degree	Title	Affiliation	Expertise/Leadership Role
4/09/13	Marry Currier, MD, MPH <sup>1,2</sup>	State Health Officer	Mississippi State Department of Health (MSDH)	20+ years of public health experience, board certified in Preventive Medicine, MS degree in Public Health
4/09/13	Jim Craig, BS <sup>1,2</sup>	Director, Health Protection	MSDH	20+ years of public health experience
4/09/13	Kathy Burk, CPM <sup>1,2</sup>	Director, Office of Health	MSDH	10+ years of public health experience
4/09/13	Geneva Cannon, MSH, RN <sup>1,2</sup>	Director, Child/Adolescent Health	MSDH	20+ years of experience in pediatric critical care and public health
4/09/13	Robert Pugh, MPH <sup>2,3</sup>	Executive Director	Mississippi Primary Health Care Association (MPHCA)	30+ years of experience in health care management, planning, policy research and development
3/25/13	Natalie Ellis <sup>4</sup>	Director	Mississippi Paralysis Association	Non-profit organization providing financial assistance
3/25/13	Christy Dunaway <sup>4</sup>	Executive Director	Living Independence for Everyone (LIFE)	Non-profit organization providing peer counseling and financial assistance

<sup>1</sup> **Mandatory:** Representative of federal/tribal/regional/state/local health departments/agencies with current data/information relevant to the needs of the community

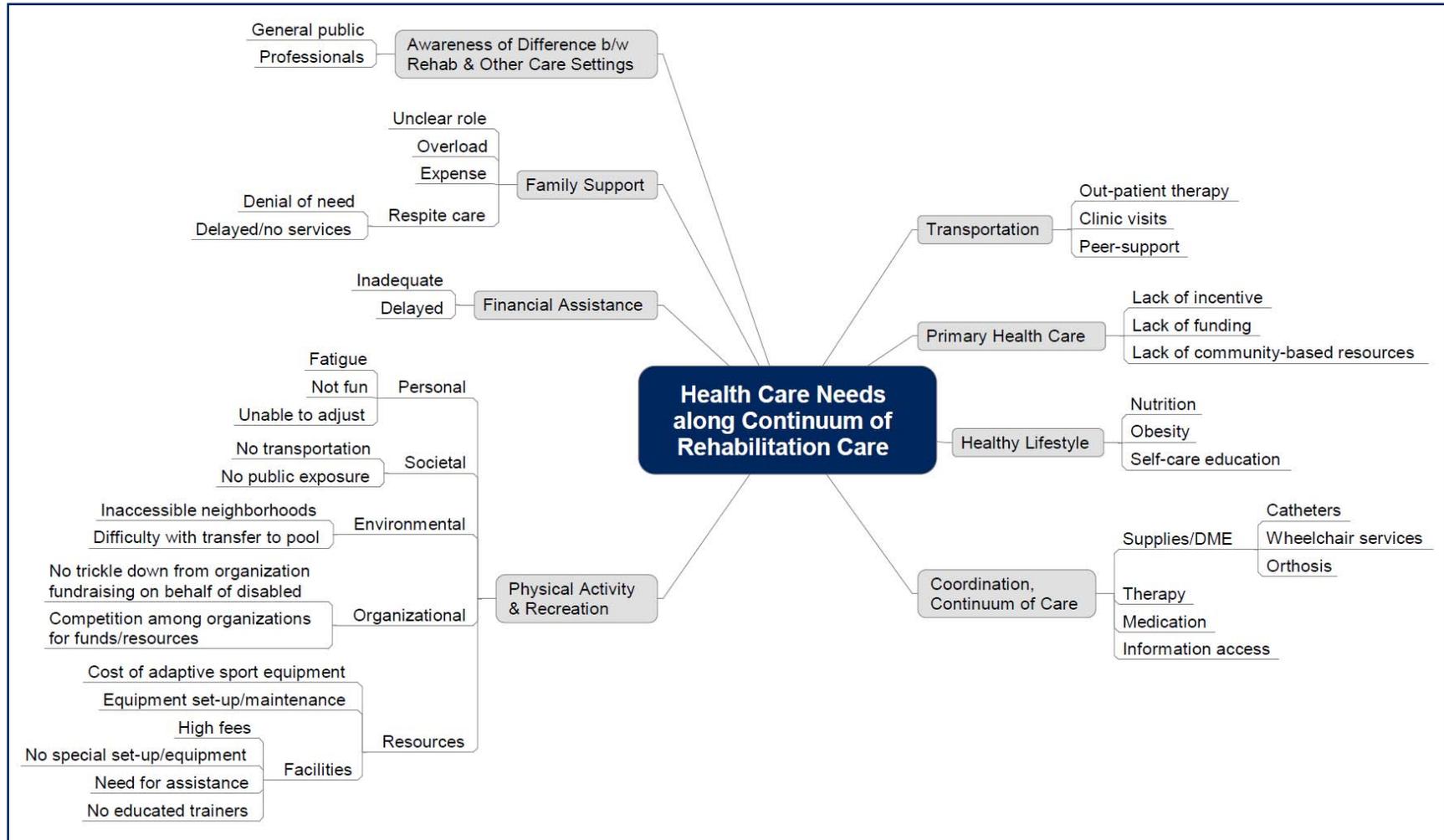
<sup>2</sup> **Mandatory:** Person with special knowledge/expertise in public health (provide name, title, affiliation, a brief description of special knowledge/expertise)

<sup>3</sup> **Mandatory:** “Leaders/Representatives”/member of medically underserved, low-income, minority populations, and populations with chronic disease needs

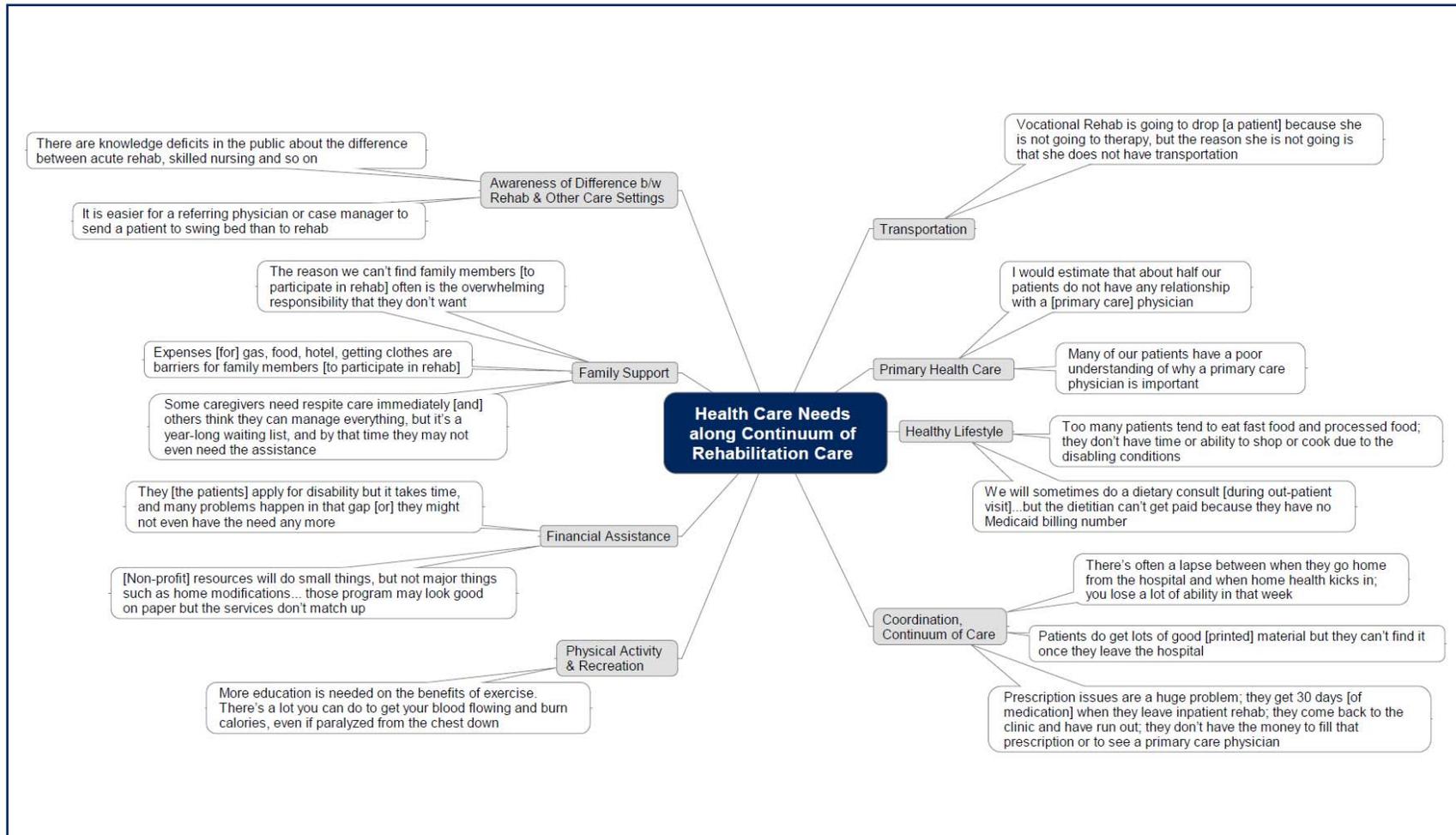
<sup>4</sup> **Optional:** Consumer advocates; nonprofit organizations; academic experts; local government officials; community-based organizations; health care providers (with focus on low-income persons, minority groups, or those with chronic disease needs); private businesses; and health insurance and managed care organizations.

## Main Themes and Comments

The main themes that emerged from the focus groups and interviews are summarized in the chart below.



Representative examples of the verbatim comments from the participants in focus groups and interviews are summarized for each theme in the chart below.



## Community Health Needs Identified

### Process and criteria for prioritizing health needs

The process analogous to “multi-voting technique” was chosen for prioritizing community health care needs. This was done through a series of meetings during which each round of votes was followed by narrowing of the priority list. Before voting, the Steering Committee agreed upon the following guiding principles:

1. *Define a “health care need”*: We adopted the definition of health care need as a “capacity to improve health”.<sup>1</sup> This was understood to include the capacity (ability) of a community to improve health and the capacity of providers to overcome identified deficiencies given the available evidence and resources. Equal weight was given to each capacity. If both were scored low, the presumed “need” was considered a “desire” and received a lower priority. It was recognized, however, that the “need” and “desire” represent ends of the spectrum and that efforts are warranted toward changing circumstances that would potentially elevate “desire” to a “need”.
2. *Give priority to input from community representatives over the results of desk research*: Given the paucity of research on health care needs of the community we serve, it was considered that themes which emerged from interviews and focus groups are most relevant for addressing immediate health care needs. At the same time, the potential bias of the participants was acknowledged as a shortcoming.
3. *Give priority to the needs with potential to create partnerships and eliminate redundancies*: Community health care needs unlikely can be met by a single organization. Therefore, higher priority is given to those needs that can be met through collaboration with another public or private entity for which the opportunity to create a partnership exists.
4. *Give priority to the needs with measurable performance indicators, including both “outputs” and “outcomes”*: Outputs relate to activities or “what was done and whom we reached,” whereas outcomes refer to “what difference did it make”. Both are justified because the activity must be delivered as intended before the expected outcomes can occur. It is recognized that early performance indicators will mainly be limited to outputs before outcomes can be reliably assessed.
5. *Give higher priority to the needs where significance of problem has about the same weight as likelihood of implementing a solution*: Based on the items in the table below, both significance of problem and solution implementation were scored low, medium, or high. Lower priority was given to needs with discrepant scores (low-high or high-low) in favor of the needs scored above low and equal (e.g., medium-medium, high-high).

Priority of Problem	Solution for Problem
▶ Impact of problem	▶ Expertise to implement solution
▶ Urgency of solving problem	▶ Effectiveness of solution
▶ Availability of solutions	▶ Potential impact on health
▶ Availability of resources to solve problem	▶ Ease of implementation/maintenance
▶ Cost and/or return on investment	▶ Potential negative consequences

<sup>1</sup>Stevens A, Raftery J. Introduction Health care needs assessment. Oxford: Radcliffe Medical Press, 1994:1-30.

## Priorities

Before setting the priorities, all members of the Steering Committee had a clear understanding of the goals and objectives along with the chosen priority criteria. The following key priority areas were selected among the identified health care needs:

### 1. UTILIZATION OF COMMUNITY-BASED PRIMARY HEALTH CARE

This need was rated the highest because the prevention of many secondary complications of stroke, spinal cord injury and brain injury requires regular monitoring of health that is best addressed in community settings. Also, Mississippi is a rural state and transportation is a significant barrier for receiving adequate health care services far away from home.

### 2. PROVISION OF FAMILY/CAREGIVER EDUCATION AND SUPPORT

The need for continued improvement was identified in the areas of education and support for families and caregivers across the continuum of care, starting as early as the screening for inpatient admission, during inpatient rehabilitation, and after discharge to the community.

### 3. PROMOTION OF HEALTHY LIFESTYLE, FITNESS AND RECREATION

This was recognized as a significant need for both physical health and overall well-being given the long-lasting consequences of stroke, spinal cord injury and brain injury, as well as overall poor health in the general population of Mississippians.

## **Facilities/Resources Available to Meet the Needs**

MRC will utilize the existing facilities and resources to address the selected priority areas. The activities will mainly be provided by the clinical, research, education, process improvement and volunteer personnel. The expertise and interest will be matched to the designated activities in each priority area. MRC will utilize the existing facilities at different locations for conducting these activities, including the main hospital and several outpatient facilities.

As appropriate, MRC plans to partner with public and private organizations and agencies to address the key priority areas, including, but not limited to the State Department of Health, Living Independence for Everyone (LIFE), Mississippi Paralysis Association, Mississippi Primary Health Care Association, and appropriate municipal departments.

