Maury Regional Medical Center (MRMC) in Columbia, Tennessee, is licensed for 255 acute care beds and a skilled nursing unit. MRMC is the largest hospital between Nashville, Tennessee and Huntsville, Alabama. The medical center was formed under a private act of the Tennessee Legislature after the federal Hospital Survey and Construction Act, commonly referred to as the Hill-Burton Act, was passed in 1946. It began operations in December 1953 as Maury County Hospital and operates as a subdivision of Maury County Government. The facility is governed by a board of trustees.

In 2013, MRMC boasted a medical staff of more than 180 physicians, serving as a regional referral center for an array of physician specialists. From a comprehensive interventional and surgical heart program that has attained chest pain center accreditation to a neonatal intensive care and cancer center, MRMC offers a wide range of advanced services and is accredited by The Joint Commission.

MRMC serves as the flagship for a group of facilities including Marshall Medical Center in Lewisburg, Wayne Medical Center in Waynesboro, Lewis Health Center in Hohenwald, and Maury Regional Spring Hill and Spring Hill Health Center in Spring Hill.

The medical center was recognized in 2013 as one of the nation’s 100 Top Hospitals by Truven Health Analytics and as one of the nation’s top health systems in 2011 and 2012. Top hospitals and health systems are determined based on publicly available data reported to the Centers for Medicare and Medicaid Services (CMS).
MRMC, located in Maury County, has a primary service area of Giles, Lawrence, Lewis, Marshall, Maury and Wayne counties with a population of more than 200,000. The majority of the areas served by MRMC are rural. Below is a breakdown of the demographics by county.

### Service Area Demographics

<table>
<thead>
<tr>
<th>County</th>
<th>Per Capita Income*</th>
<th>% Age 65+</th>
<th>% Under 18 Years of Age</th>
<th>% Caucasian</th>
<th>% African-American</th>
<th>% Hispanic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Giles</td>
<td>20,105</td>
<td>17.3</td>
<td>21.9</td>
<td>86.9</td>
<td>10.4</td>
<td>1.7</td>
</tr>
<tr>
<td>Lawrence</td>
<td>18,059</td>
<td>16.4</td>
<td>24.9</td>
<td>95.9</td>
<td>1.8</td>
<td>1.7</td>
</tr>
<tr>
<td>Lewis</td>
<td>17,209</td>
<td>16.5</td>
<td>23.7</td>
<td>96.0</td>
<td>1.9</td>
<td>2.0</td>
</tr>
<tr>
<td>Marshall</td>
<td>20,569</td>
<td>13.5</td>
<td>24.1</td>
<td>90.7</td>
<td>6.8</td>
<td>4.8</td>
</tr>
<tr>
<td>Maury</td>
<td>23,098</td>
<td>13.4</td>
<td>24.0</td>
<td>84.6</td>
<td>12.6</td>
<td>5.0</td>
</tr>
<tr>
<td>Wayne</td>
<td>15,466</td>
<td>16.2</td>
<td>19.2</td>
<td>92.5</td>
<td>6.1</td>
<td>1.7</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau  
*2011 dollars, 2007-2011

### Existing Community Health Care Resources

MRMC serves as the flagship for a group of facilities including Marshall Medical Center in Lewisburg, Wayne Medical Center in Waynesboro, Lewis Health Center in Hohenwald, and Maury Regional Spring Hill and Spring Hill Health Center in Spring Hill. In addition, LifePoint Hospitals® operates facilities in Giles and Lawrence counties. Each county also has health department resources and a variety of physician practices and walk-in clinics.
Community Health Needs Assessment Purpose & Background

As directed under the Patient Protection and Affordable Care Act, MRMC has conducted a community health needs assessment (CHNA). MRMC engaged Healthy Communities Institute (HCI) to assist the medical center in compiling the data to determine the health status of the region served.

HCI utilizes a variety of sources of publicly available data (see Appendix A) and offers a Web-based dashboard system. The data is posted on the MRMC Web site at mauryregional.com, which enables a variety of stakeholders in the community to access the data as we work together to improve the health of the community.

HCI has clients in more than 40 states and is rooted in work started in 2002 in concert with the Healthy Cities Movement at the University of California at Berkley. HCI staff members have extensive experience in data visualization and data mapping and are experts in managing and presenting data. To learn more about HCI, visit HealthyCommunitiesInstitute.com.

Identifying Regional Needs

Evaluating the Data

MRMC reviewed the data available through the HCI dashboard product. The dashboard provides colored gauges.

This colored gauge represents how the community selected is doing in comparison to other communities. The three-colored dial represents the distribution of values from the reporting regions (e.g. counties in the state) ordered from those doing best to those doing worst. From that distribution, the green represents the top 50th percentile, the yellow represents the 25th to 50th percentile, and the red represents the worst quartile.

This gauge shows how the community (e.g. Community: Maury County + South Central Region) value compares with the median or mean value for all counties in the state (or all U.S. counties). The gauge is blue and white when being higher (or lower) is not necessarily good or bad and is multi-colored when being higher (or lower) is good or bad.

This gauge shows whether the Community: Maury County + South Central Region value is increasing or decreasing over time. A green arrow means the value is improving and a red arrow means the value is getting worse. The = (equal) sign means that there is not a significant increase or decrease since the last measurement. A blue arrow means the value being higher (or lower) is not necessarily good or bad.

In evaluating the data, several key health issues were identified as being at or below the 50th percentile, either by region or by one or more counties served. A committee was formed to assess what is currently being done to address these health states and determine what future steps to take with the assistance of stakeholders. Key findings were shared with community partners and a survey to obtain their feedback was developed.
Community Feedback

Community partners included the health councils, physicians, clinical providers and schools in the region. Our goal was to share the data with community partners and determine gaps in any existing services between MRMC and the multitude of agencies in the region who also service these populations.

The regional health councils have broad representation, including members from the health department, American Cancer Society, physician practices, assisted living facilities, home health agencies, mental health agencies, YMCA, pregnancy centers, abuse prevention agencies, poverty assistance agencies, hospice organizations and substance abuse/rehabilitation facilities (see Appendix B).

Because teen birth rates were very high in certain counties, we obtained information from each school system in the counties with high teen birth rates regarding teen pregnancy education and how MRMC staff might assist in this process.

Determining Health Priorities

Based on the available data and with assistance from feedback provided by community partners, MRMC identified the following priorities for impacting community health:

- Obesity and associated disease states
- Cancer
- Heart disease and stroke
- Teen birth rate

Specific information on each disease state or condition follows.
Obesity & Associated Disease States

The Centers for Disease Control (CDC) describes obesity as a national epidemic and Tennessee’s percentage of the population considered obese in 2011 was 29.2%. According to the CDC, obesity-related conditions include heart disease, stroke, type 2 diabetes and certain types of cancer, some of the leading causes of preventable death. In 2008, medical costs associated with obesity were estimated at $147 billion and the medical costs for people who are obese were $1,429 higher than those of normal weight.

While there are a variety of causes contributing to obesity, the modifiable risk factors include creating environments that promote healthy nutrition and exercise. Below are areas in which MRMC is working to help decrease obesity and the diseases associated with obesity:

**Workplace**—MRMC offers a program to employers in the region to assist them in improving the health of their workforce and reducing medical costs. Utilizing a product by Applied Health Analytics, MRMC conducts screenings that include body mass index, blood pressure, grip strength, sit and reach, blood glucose, bone density, cholesterol and triglycerides.

Each employee participates in the screening event and completes a personal health survey. Results are evaluated by a physician and MRMC provides access to a physician consult. If any abnormal labs are elevated, the physician sends a letter to the employee along with education material. In addition, the employee receives an individualized report with the results of their testing and recommendations on ways in which they may improve their health in specific areas of need.

Employers receive an aggregated report for the employee populations as a whole and a variety of statistical results, including an expense estimator for claims and lost productivity based on the health of the workforce. The program is offered free to employers and MRMC commits significant financial and human resources to conducting the employee health assessments. Tools provided to employers to help improve the health of their employees include a guide outlining 10 steps for creating a successful population health enhancement initiative.

Launched in 2010, this program has continued to grow. In the first year, MRMC assisted eight employers and 1,128 with this health assessment. By 2012, the number of employers utilizing this program had grown to 21, accounting for 3,754 individuals. It is anticipated that the program will continue to grow, with 25 employers expected to participate in 2013. Participants include manufacturing facilities, city and county governments, school systems and private businesses. Both employers and employees have access to trended data by year. While only launched in 2010, several employers have seen significant improvement in the trended health of their employee populations and one has been able to track a reduction in their health costs of nearly 2%.

MRMC was the first organization in the region to utilize this program prior to introducing it to other employers. As the largest employer in the region with more than 2,000 employees, we set the stage for creating an environment for a healthier workforce. At MRMC and other organizations, this program has resulted in significant health awareness and associated wellness initiatives, including wellness centers, Weight Watcher programs, measured walking routes, exercise classes and much more.

In addition, MRMC has added improving the health status of the employee base in the region to our strategic plan and associated numerical scorecard goals for whole health index, biometric index and health awareness for fiscal year 2014.
Schools—The Maury Regional Health Care Foundation has worked with the Maury County School System to fund programs that encourage healthy diets and exercise. In recent years, the foundation funded the Michigan Model for Health® for all physical education teachers to teach a nutrition and wellness curriculum in grades K-4 and the Take10! program, which integrates physical activity with core academic subjects such as language arts, math, social studies, science and math. The Maury County School System continues to use these tools today and expansion into other schools is planned in fiscal year 2014.

The Maury Regional Health Care Foundation has also funded a licensed dietitian to participate in school events, including:

- Parent Teacher Organization meetings addressing obesity trends
- Health fairs addressing nutrition, sugar contents and portion control
- Venues in which parents of school children were provided ideas on preparing healthy balanced meals
- Plans are to continue and increase these outreach activities in the schools in our region.

Patient Populations—One of the primary disease states associated with obesity is type 2 diabetes. MRMC employs a certified diabetes educator. Her role is to provide consults within the medical center to assist patients who are required to control their blood sugar. She conducts education among this population, which includes appropriate monitoring, medication administration and nutrition and exercise recommendations. MRMC also offers a day-long diabetes self management class. The class is promoted to physicians in the service area for their patients who are faced with controlling blood sugar as well as former inpatients upon discharge. The course is taught by a team of registered nurses and dietitians and is accredited by the American Diabetes Association. Topics covered include defining diabetes, medications, meal planning, proper exercise, stress reduction, prevention of long-term complications and on-going care for diabetes.

Also offered for the community is a free monthly diabetes education group, community seminars, health fairs and other outreach events.

Cancer

The research on the health of the community clearly indicates that cancer is a problematic disease state for both the region and population served by the medical center. The data suggests that the age adjusted death rate for lung cancer, the incidence rate for breast cancer, and the incidence rate of colorectal cancer is especially worrisome because all exceed the 50th percentile.

As a result, there will be an organizational focus of the aforementioned diseases in order to educate the population regarding the disease, appropriate screening protocols, early detection and the value of a healthy lifestyle. The importance of reducing the risk of colorectal, breast and lung cancer through healthy eating habits, physical activity, smoking cessation and reduction of exposure to second-hand smoke cannot be overlooked; thus, a consistent message to the community will be imperative to this objective.

Lung Cancer—The age adjusted death rate for lung cancer is—and historically has been—a problem for the region. In fact, more people die from lung cancer annually than any other form of cancer, and this statistic is supported by the internal data collected annually for the organization. The cancer registry data for MRMC documents that the five-year mortality rate from lung cancer is approximately 84 percent.

In response to this data, smoking cessation classes are offered quarterly for a nominal fee. The classes are poorly attended and success rates for behavior modification alone have been documented by the instructors at
approximately 30 percent. However, behavior modification combined with pharmaceuticals offer an internal success rate of more than 70 percent.

Participants in the program often resist medications such as Chantix and nicotine patches because of personal financial restraints. In order to assist with this need, the medical center will utilize funds from the Maury Regional Health Care Foundation to purchase a one month supply of Chantix or nicotine patches for those unable to afford the prescription or over-the-counter medication. The rationale for this plan is that once smoking is eliminated or reduced, the participant will have the available resources to purchase the pharmaceuticals because of the enhanced income from eliminating/reducing the expense of tobacco products. This program can be quantified by the number of participants taking classes, and the overall success rates of the program. The financial assistance will be marketed appropriately both to the community and to the local physician practices.

Likewise, it is deemed advantageous to target the youngest members of our community in order to further decrease lung cancer incidence due to smoking. In order to accomplish this task, the organization will be implementing the “Tar Wars” program in the local school system. Tar Wars will utilize MRMC staff or other educators to teach the dangers of both smoking and second-hand smoke to grade school children in the public school system. This program can be quantified by the number of students reached through the array of community schools, and the percentage of schools participating in the program.
Another important addition to the cancer program here at MRMC will be the addition of navigation services. A patient navigator will be added to the Cancer Center staff during the 2013 calendar year, and he/she will focus on lung cancer initially. This navigator will serve as a patient advocate for the cancer survivor, and will assist the patient/family in the following ways:

- Serve as a patient advocate to assist with the often complicated maze of oncology treatment.
- Provide care management and coordination.
- Provide social and psychosocial support.
- Provide financial support and counseling.
- Provide nutritional support and education.
- Answer questions and ensure critical appointments are both made and understood.
- Offer emotional support to patients and families during difficult and stressful times.
- Help match patients to potential research protocols.
- Provide a valuable link between the cancer center and the community physicians referring into the cancer center.
- Provide a methodology to somewhat ease the cancer burden, and the MRMC oncology patients will benefit from this important service.

This important program can be measured by the number of patients/families served, and by monitoring the five-year mortality rates for lung cancer as a whole. The addition of navigation should in theory enhance lung cancer survival due to the increased compliance that navigation adds to any oncology program. The navigator diligently ensures appointments for treatment and specialty services are clearly understood with every effort made to provide the knowledge and resources for timely attendance. Thus, the lung cancer prognosis should improve, and the potential to move the needle for lung cancer is promising.

Furthermore, the message of a healthy lifestyle with a focus on a smoke-free environment will be consistently stressed at an array of community events. These include the Senior Expo, various church events, local wellness events for employers and numerous festivals. The importance of education cannot be overlooked, and it is deemed imperative to the ability to truly impact lung cancer incidence and survival. The educational initiatives will be quantified annually by the number of events attended and the number of individuals reached. However, it is important to note, that the impact of education, while difficult to measure, is invaluable to the rural population served by MRMC.

**Breast Cancer**—The data compiled reflected a high incidence rate from breast cancer for Maury and Marshall counties. According to the American Cancer Society (ACS), breast cancer is the most common cancer among American women other than skin cancer. Data from the ACS further suggests that 261,100 new cases of breast cancer will be diagnosed in 2013, and 39,840 women will die from the disease itself.

However, the ACS states that breast cancer deaths have been on the decline since 1990. The ACS attributes the decrease in mortality to increased early breast cancer detection acquired through screening mammography, an increased awareness of breast cancer, and improved treatment. Thus, a high incidence of breast cancer is not in itself especially problematic if the mortality rates meet national expectations and benchmarks.

Maury Regional Medical Center implemented digital mammography in 2008. Following this implementation, the diagnosis of breast cancer doubled, and these rates have leveled off since 2010. In order to gauge the severity of the high breast cancer incidence rate in the region, the MRMC mortality rates were reviewed. The five-year survival for breast cancer is 83.1 percent for the patients diagnosed and treated at the medical center. The five-year breast cancer survival rate nationally as reported by National Cancer Data Base is 85.4 percent.

As a result, breast cancer mortality will be tracked and monitored quarterly on the administrative scorecard for the organization. Also, the organization will utilize educational opportunities in the community as a whole,
but an enhanced focus for education will target both Maury and Marshall counties to stress the importance of mammography screening, and these will be listed in the bullet points below.

- Direct mailings to women in the community over the age of 40 promoting mammography screening, and the importance of early detection.
- Annual free luncheon sponsored by MRMC for women in the community with a breast cancer topic.
- Community assistance for mammography screening for those unable to afford the service with funding provided from the Maury Regional Health Care Foundation.
- MRMC will apply in 2013 for a certification through the National Accreditation Program for Breast Cancer (NAPBC) to ensure national standards and protocols are met at MRMC.
- MRMC will apply in 2013 for certification with the American College of Radiology to become a Breast Center of Excellence.
- Participation in 20 or more annual events for women in the community, promoting the importance of early detection and annual screening after the age of 40.
- Continuance of the MRMC Breast Cancer Support Group and the Coping with Cancer Support Group.
- Participation by MRMC staff in the Susan G. Komen educational tent in the annual Race for the Cure.
- Enhanced access to clinical trials at MRMC.

These objectives can be appropriately quantified by measuring the number of events attended by MRMC staff, the number of women reached, and by the monitoring of breast cancers diagnosed and the related five-year survival rates.

**Colorectal Cancer**—The incidence rate for colorectal cancer in both Giles and Marshall counties exceeds the 50th percentile in the data. In order to address the incidence rate in these counties, the importance of early detection and screening need to be addressed. Data from the ACS suggest that beginning at age 50, both men and women at average risk for developing colorectal cancer should use one of the screening tests below:

<table>
<thead>
<tr>
<th>TESTS THAT FIND POLYPS AND CANCER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexible sigmoidoscopy every five years</td>
</tr>
<tr>
<td>Colonoscopy every 10 years</td>
</tr>
<tr>
<td>Double-contrast barium enema every five years</td>
</tr>
<tr>
<td>CT colonography (virtual colonoscopy) every five years</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TESTS THAT MAINLY FIND CANCER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fecal occult blood test (FOBT) every year</td>
</tr>
<tr>
<td>Fecal immunochemical test (FIT) every year</td>
</tr>
</tbody>
</table>

The importance of screening for colorectal cancer is imperative for the community to both know and understand; hence, the medical center will focus on educational initiatives for this disease state. The following bullet points will outline the action plan that will be implemented:

- Direct mail targeting the population aged 50 and older regarding the importance of colorectal screening.
- Community educational programs utilizing a gastroenterologist for the counties of Marshall and Giles.
- MRMC semi-annual luncheon series (Women Helping Women) to have at least one event with a colorectal focus.
- Educational information distributed to regional physician practices discussing the importance of colorectal screening, and soliciting input as to why the population resists screening.

The educational objective for colorectal cancer can be effectively quantified by the number of events attended, the number of people reached, the number of physician offices visited, and the incidence rate itself. The importance of healthy lifestyle and overall wellness cannot be neglected in this disease state, and a consistent message will be portrayed for this, and all, cancerous disease states.
HEART DISEASE & STROKE

The research on the health of the community also highlights areas of concern for heart disease and stroke. The data indicates high age-adjusted death rates due to heart disease in Giles, Lewis, Marshall and Wayne counties. The age-adjusted death rate due to stroke is of specific concern in Giles, Lewis, Maury and Wayne counties.

MRMC has collaborated with Vanderbilt Heart to provide interventional and surgical cardiac care and has six cardiologists on the medical staff as well as one cardiovascular and thoracic surgeon. In addition to the primary office location on the medical center campus in Maury County, the cardiologists also have office hours in the counties of Giles, Lawrence, Lewis, Marshall and Wayne. MRMC holds accreditation as a chest pain center and accreditation for congestive heart failure from the Society of Chest Pain Centers.

More specific to stroke, MRMC has two neurologists on the medical staff as well as a neurosurgeon. To assist with quickly treating stroke patients, the medical center also implemented teleneurology in April 2013, which provides fast access to a neurologist 24 hours a day, seven days a week.

While genetics and other factors influence heart disease and stroke, there are a number of modifiable risk factors to reduce one’s chance of an adverse event. Education is vital to influencing these behaviors. MRMC focuses education efforts on controlling blood pressure, nutrition and exercise, smoking cessation, appropriate screening, and quickly recognizing the signs and symptoms of a serious event and quickly calling 911.

Community Outreach — Annually, MRMC participates in numerous community outreach activities, including booths at large community events and festivals, participation in health fairs, and more. At each of these events, staff conducts blood pressure screenings and provides educational materials on heart disease, stroke and high blood pressure.

In an effort to help reach medically underserved populations, the Maury Regional Health Care Foundation launched a community health nurse program. This program educates high, at-risk individuals at the local housing authority, a local soup kitchen called the People’s Table and senior citizen centers. Each month a different health topic is covered and basic health screens like blood pressure checks are conducted.

Physicians and staff also conduct educational seminars in the community, ranging from those promoted at the medical center to requests from civic groups. During these events, topics covered include risk factors for heart disease and stroke, signs and symptoms, ways to reduce the risk of heart attack and stroke, including nutrition and exercise. One main focus of the Society of Cardiovascular Patient Care Services is the awareness of the community to call 911. This has been a goal of MRMC’s for the past several years. Each program/seminar that a MRMC employee provides includes the education of the importance of calling 911.

Outreach programs will be measured by number of individuals screened, attendance and event evaluation results.

School System — In order to reduce behaviors that lead to an increased risk for heart disease and stroke, it is important to reach youth through the local school system. MRMC believes education at an early age will have a positive effect on the health of our community in the future. In addition to the school-based education programs outlined under the obesity section, the Maury Regional Health Care Foundation also sponsors Teen Safe Night with Maury County Schools. Topics include proper nutrition, fitness, and alcohol, tobacco and drug awareness. MRMC cardiopulmonary rehabilitation staff members focus on exercise and smoking education and risk factor modification.

Cardiopulmonary resuscitation (CPR) as well as Automated External Defibrillators (AED’s) education is conducted in Maury County schools by our Emergency Medical Services (EMS) department. With assistance
from the Maury Regional Health Care Foundation, 12 automated external defibrillators (AEDs) were purchased and placed in all schools in Maury County. Since the purchase of the AEDs, EMS personnel have taught 90% of teachers and 300+/- students how to utilize an AED.

EMS staff also provides cardiopulmonary resuscitation (CPR) and first aid training to approximately 60 students per semester. At the largest high school in Maury County, EMS also provides an emergency medical responder class with funding assistance provided by the Maury Regional Health Care Foundation. In addition, Maury County elementary schools are offered a “show and tell” of emergency services and the EMS staff instructs the EMS Explorer group that is made up of high school students from Maury County.

**Patient Populations**—Another important avenue to keep our community healthy is to work closely with long-term care facilities (LTC). MRMC provided a workshop for the long-term care facilities in our area along with home health and assisted living facilities. The topic was diabetes and the relationship to heart disease. There was a nominal fee and the 35 attendees were offered contact hours.

In addition, a group is working with a local LTC facility to pilot several initiatives to decrease readmissions and to enhance care for patients after discharge. Currently, an order set for heart failure has been created and a discharge transfer form to better communicate the plan for the patient. Education is being provided by MRMC’s educator regarding these new initiatives.

MRMC has a disease management nurse that contacts all heart failure patients after discharge to ensure that they are following discharge and disease management instructions. A physician specializing in heart failure assists with the education of patients as does the foundation by funding scales for patients in need. The goal of this program is to assist heart failure patients in managing their disease and to reduce their likelihood of readmission. Readmission rates are closely monitored to measure results.

**Support Groups & Classes**—MRMC has various support groups that meet regularly to assist with the heart disease education, benefiting patients and the community. The Healthy Hearts Education and Support Group meets quarterly and smoking cessation classes are held quarterly. Also impacting this disease group are the diabetes support services, as there is a strong correlation to obesity, diabetes and heart disease.
There are several counties within the MRMC service area that have high teen birth rates. Rates in Giles and Wayne counties are in the top 50th Percentile for 2010 and 2011; however, the counties of Maury, Lawrence, Marshall and Lewis are alarming as indicated in the chart below based on Tennessee Department of Health data per 1,000 females ages 15-17.

<table>
<thead>
<tr>
<th>County</th>
<th>Status</th>
<th>Results/1000 Live Births</th>
<th>National Percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maury</td>
<td>Improving</td>
<td>2011 – 23.8 live births/1000</td>
<td>25-50th Percentile</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2010 – 27.2 live births/1000</td>
<td></td>
</tr>
<tr>
<td>Lawrence</td>
<td>Getting Worse</td>
<td>2011 – 24.7 live births/1000</td>
<td>Worst Quartile</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2010 – 18.3 live births/1000</td>
<td></td>
</tr>
<tr>
<td>Marshall</td>
<td>Getting Worse</td>
<td>2011 – 26.8 live births/1000</td>
<td>Worst Quartile</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2010 – 20.2 live births/1000</td>
<td></td>
</tr>
<tr>
<td>Lewis</td>
<td>Improving</td>
<td>2011 – 25.6 live births/1000</td>
<td>Worst Quartile</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2010 – 36.0 live births/1000</td>
<td></td>
</tr>
</tbody>
</table>

Impacting these rates is especially challenging for a medical provider. Teens generally do not present to the medical center unless they are pregnant and many obstetricians and gynecologists do not have contact with teens at an early age. For this reason, MRMC knew it was vital to work with the school system in order to have an avenue to educate teens on the challenges created by teen pregnancy.

A phone survey was conducted among the counties with high teen birth rates to determine what education and resources are currently in place, who provides the education and who participates in the education. In the counties surveyed, it became evident that education regarding teen pregnancy has been sporadic, with the exception of Marshall County, which has an abstinence program for eighth graders. It was consistently noted that funding is the primary issue.

Clearly there is a need to work with schools to help students be aware of the consequences of teen pregnancy. Health outcomes of both the mother and infant are at risk, as infants have a greater chance of being born preterm and/or low birth weight.

MRMC will evaluate the feasibility of working with the school systems and other youth organizations to determine if and how the medical center and other local providers might partner with them to assist in educating teens. An important factor that must be considered is that Tennessee has an Abstinence Bill, passed in May 2012, which prohibits certain education and allows for lawsuits to be filed against those teaching any form of birth control other than abstinence. For this reason, any plan to partner with the schools should include a curriculum that follows the guidelines outlined in this bill. The impact of our efforts will be measured utilizing annual Tennessee Department of Health data.
While MRMC has a long history of offering programs and services to improve community health, the medical center renewed its commitment to do so in 2013, with the addition of community health and wellness to the strategic plan and as one of the organization’s Keys to Success. As part of this process, goals are set annually to impact the health of our community. These goals include the disease states and conditions in which our region shows significant need for improvement.

In addition, we will focus on the following objectives for the future:

- Physician recruitment in areas of need
- Explore education opportunities with the school systems to include nutrition and exercise, smoking cessation and reducing teen birth rates
- Expand prevention programs for cancer, heart disease and stroke
- Expand the medication assistance program funded by the Maury Regional Health Care Foundation to assist in reducing readmission rates due to lack of financial resources to purchase medications.
- Develop educational marketing campaigns on prevention and screening
- Partner with the YMCA on Pioneering Healthy Communities, which develops a collaborative of community leaders to make changes in policies, physical surroundings, nutrition and physical activity to help achieve healthier lifestyles.
- Complete work on a patient portal to assist patients in disease management
- Increase our focus on disease states impacting outlying communities in our region, taking screenings and/or education programs to those counties rather than bringing them to the medical center
- Expand and strengthen our partnerships with other providers in the community to reach at-risk populations

Results of our efforts will be measured based on the number of individuals served, screenings conducted, reduction in readmission rates and the disease states dashboard data used to begin the community needs assessment process. This dashboard is updated as new data on incident and death rates becomes available.

Changing the health of communities is a long-term commitment and one that is reflected in MRMC’s vision statement:

Maury Regional Medical Center strives to provide, for every patient every day, an individualized, innovative health care service by combining value and world-class clinical outcomes within a personalized, caring environment, and by improving the health of the community through partnerships and integration.
APPENDIX A
DATA SOURCES
Healthy Communities Institute All Rights Reserved Indicators
IP2020
Target Geographic Level* Source
ACCESS TO QUALITY HEALTH SERVICES
Adults with Health Insurance x County American Community Survey – 2011
Children with Health Insurance x County American Community Survey – 2011
Adults with a Usual Source of Health Care x Sub-state Region Tennessee Behavioral Risk Factor Surveillance System – 2010
Primary Care Provider Rate County County Health Rankings – 2011-2012
CHRONIC DISEASES
Cancer:
Age-Adjusted Death Rate due to Cancer x County National Cancer Institute – 2005-2009
Age-Adjusted Death Rate due to Breast Cancer x County National Cancer Institute – 2005-2009
Age-Adjusted Death Rate due to Lung Cancer x County National Cancer Institute – 2005-2009
Age-Adjusted Death Rate due to Prostate Cancer x County National Cancer Institute – 2005-2009
Cancer Incidence Rate County National Cancer Institute – 2005-2009
Breast Cancer Incidence Rate County National Cancer Institute – 2005-2009
Cervical Cancer Incidence Rate County National Cancer Institute – 2005-2009
Colorectal Cancer Incidence Rate x County National Cancer Institute – 2005-2009
Lung and Bronchus Cancer Incidence Rate County National Cancer Institute – 2005-2009
Prostate Cancer Incidence Rate County National Cancer Institute – 2005-2009
Mammogram History Sub-state Region Tennessee Behavioral Risk Factor Surveillance System – 2010
PAP Test History Sub-state Region Tennessee Behavioral Risk Factor Surveillance System – 2010
Diabetes:
Adults with Diabetes Sub-state Region Tennessee Behavioral Risk Factor Surveillance System – 2010
Age-Adjusted Death Rate due to Diabetes County Tennessee Department of Health – 2009
Heart Disease and Stroke:
Age-Adjusted Death Rate due to Cerebrovascular Disease (Stroke) x County Tennessee Department of Health – 2009
Age-Adjusted Death Rate due to Heart Disease County Tennessee Department of Health – 2009
High Cholesterol Prevalence x Sub-state Region Tennessee Behavioral Risk Factor Surveillance System – 2010
High Blood Pressure Prevalence x Sub-state Region Tennessee Behavioral Risk Factor Surveillance System – 2010
Respiratory Diseases
Adults with Asthma Sub-state Region Tennessee Behavioral Risk Factor Surveillance System – 2010
COMMUNICABLE DISEASES AND IMMUNIZATIONS
Influenza Vaccination Rate Sub-state Region Tennessee Behavioral Risk Factor Surveillance System – 2010
Pneumonia Vaccination Rate Sub-state Region Tennessee Behavioral Risk Factor Surveillance System – 2010
Chlamydia Incidence Rate County Tennessee Department of Health – Sexually Transmitted Diseases – 2011
 Gonorrhea Incidence Rate County Tennessee Department of Health – Sexually Transmitted Diseases – 2011
Tuberculosis Incidence Rate x County Department of Health – Communicable and Environmental Disease Services – 2012
Age-Adjusted Death Rate due to Influenza and Pneumonia County Tennessee Department of Health – 2009
Age-Adjusted Death Rate due to HIV x County Tennessee Department of Health – 2009
COUNTY HEALTH RANKINGS
Clinical Care Ranking County County Health Rankings – 2013
Health Behavior Ranking County County Health Rankings – 2013
Morbidity Ranking County County Health Rankings – 2013
Mortality Ranking County County Health Rankings – 2013
Physical Environment Ranking County County Health Rankings – 2013
Social and Economic Factors Ranking County County Health Rankings – 2013
DISABILITIES
Persons with a Disability County American Community Survey – 2011
Persons with Disability Living in Poverty County American Community Survey – 2011
FAMILY PLANNING
Teen Birth Rate County Tennessee Department of Health – 2011
MATERNAL, FETAL, AND INFANT HEALTH
Babies with Low Birth Weight x County Tennessee Department of Health – 2011
Babies with Very Low Birth Weight x County Tennessee Department of Health – 2011
Infant Mortality Rate x County Tennessee Department of Health – 2011
Preterm Births x County Tennessee Department of Health – 2009
MENTAL HEALTH AND MENTAL DISORDERS
Age-Adjusted Death Rate due to Suicide x County Tennessee Department of Health – 2009
NUTRITION, PHYSICAL ACTIVITY AND WEIGHT
Adults Overweight or Obese Sub-state Region Tennessee Behavioral Risk Factor Surveillance System – 2010
Adults Engaging in Physical Activity Sub-state Region Tennessee Behavioral Risk Factor Surveillance System – 2010
Adult Fruit and Vegetable Consumption Sub-state Region Tennessee Behavioral Risk Factor Surveillance System – 2009
SUBSTANCE ABUSE AND TOBACCO USE
Adults who Smoke x Sub-state Region Tennessee Behavioral Risk Factor Surveillance System – 2010
Adults who Smoke x Sub-state Region Tennessee Behavioral Risk Factor Surveillance System – 2010
Adult Smoking Cessation Attempts Sub-state Region Tennessee Behavioral Risk Factor Surveillance System – 2010
WELLNESS & LIFESTYLE
Self-Reported General Health Assessment: Fair or Poor Sub-state Region Tennessee Behavioral Risk Factor Surveillance System – 2010
ECOLOGY
Young Children Living Below Poverty Level County/Census Tract American Community Survey – 2007–2011
People Living Below Poverty Level/Census Tract American Community Survey – 2007–2011
People Over 65 Living Below Poverty Level/Census Tract American Community Survey – 2007-2011
Per Capita Income County/Census Tract American Community Survey – 2007–2011
People Living 0% Above Poverty Level/Census Tract American Community Survey – 2007–2011
Median Household Income County/Census Tract American Community Survey – 2007-2011
Renters Spending 30% or More of Household Income on Rent County/Census Tract American Community Survey – 2007-2011
Homeownership Rate County/Census Tract American Community Survey – 2007–2011
SNAP-Authorized Stores per 1,000 pop (food stamps) County U.S. Department of Agriculture - Food Environment Atlas – 2011
Percent Students Eligible for Free Lunch County U.S. Department of Agriculture - Food Environment Atlas – 2009
Foreclosure Rate County U.S. Department of Housing and Urban Development – 2008
EDUCATION
Students Proficient in Math: Grades 3-8 County Tennessee Department of Education – 2012
Students Proficient in Reading: Grades 3-8 County Tennessee Department of Education – 2012
Residents > 25 with a High School Degree or Higher County/Census Tract American Community Survey – 2007-2011
Residents > 25 with BA Degree or Higher County/Census Tract American Community Survey – 2007-2011
High School Drop Out Rate County Tennessee Department of Education – 2012
Student-to-Teacher Ratio County National Center for Education Statistics – 2010-2011
SOCIAL ENVIRONMENT
Child Abuse Rate x County Annie E Casey Foundation- KIDS Count – 2010
Linguistic Isolation County Community American Community Survey – 2007-2011
Single Parent Households County/Census Tract American Community Survey – 2007-2011
Violent Crime Rate County Health Rankings – 2008-2010
Victor Turnout County Tennessee Department of State – 2012
BUILT ENVIRONMENT
Grocery Store Density (per 1,000 population) County U.S. Department of Agriculture - Food Environment Atlas – 2009
Farmers' Markets Density County U.S. Department of Agriculture - Food Environment Atlas – 2012
Liquor Store Density County Business Patterns – 2011
Percent Low Income & < 1 mi to Store County U.S. Department of Agriculture - Food Environment Atlas – 2010
Percent Households No Car & < 1 mi to store County U.S. Department of Agriculture - Food Environment Atlas – 2010
ENVIRONMENT
Annual Particle Pollution County American Lung Association – 2009-2011
Daily Ozone Air Quality County AIRNow
Daily PM2.5 Pollution County AIRNow
Releases of Recognized Carcinogens into Air County Environmental Protection Agency – 2011
PBT Released County Environmental Protection Agency – 2011
TRANSPORTATION and TRANSPORTATION SAFETY
Mean Travel Time to Work County American Community Survey – 2007-2011
Mode of Getting to Work: % Drove Alone County/Census Tract American Community Survey – 2007-2011
Mode of Getting to Work: % Public Transit County/Census Tract American Community Survey – 2007-2011
Mode of Getting to Work: % Walk County/Census Tract American Community Survey – 2007-2011
People Living 200% Above Poverty Level County/Census Tract American Community Survey – 2007-2011
* Data Availability Varies by County
Note: Data is listed as of the date the CHNA was authored; however, the data is updated as it becomes available.

APPENDIX B
COMMUNITY FEEDBACK
The following is a list of the organizations providing input through an electronic survey. Multiple responses were received from many of the organizations listed below; however, the name and title of one individual respondent at the organization is listed as mandated by the Patient Protection and Affordable Care Act. Some organizations may have more than one individual listed based on the requirement to identify those with special knowledge or expertise in public health.

Centers of America; Elizabeth Patton-Robman, Prevention Specialist
· City of Lawrenceburg; Doug Edwards, Human Resources Director
· CompleteCare; Autumn Blake, Community Outreach Coordinator
· Department of Children's Services; Denise Malone, Family Service Worker
· Giles County Board of Education; Denise Sanders, Coordinator of School Health
· Giles County EMS; Joyce Anderson, Division Chair Nursing
· Giles County Health Department; Elizabeth Cook, Director
· Maury County Health Department; Amy McAlister, Medical Case Manager
· Maury County Senior Citizens Inc.; Brenda Grimsley, Executive Director
· Martin Methodist College; Joyce Anderson, Division Chair Nursing
· Maury County YMCA, Robyn Graham, Executive Director
· Maury County YMCA; Katie Martin, Hope for Health Coordinator
· Wayne County Board of Education; Jeff Skelton, Health Coordinator
· Wayne Medical Center; Greg Eaton, EMS Director

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