Version: 11/19/2013

Methodist Le Bonheur Healthcare Community Health Needs Assessment & Strategic Implementation Plan

Facilities Included:

- **Methodist Healthcare – Memphis Hospitals**
  - **Methodist University Hospital**
  - **Methodist South Hospital**
  - **Methodist North Hospital**
  - **Methodist Le Bonheur Germantown Hospital**
  - **Le Bonheur Children's Hospital**
- **Methodist Healthcare – Fayette Hospital**
- **Methodist Extended Care Hospital**

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Community Health Needs Assessment Committee

Methodist Le Bonheur Healthcare Management

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Introduction

This document is the Community Health Needs Assessment (CHNA) for Methodist Le Bonheur Healthcare (MLH) in Memphis, Tennessee and includes the Strategic Implementation Plans for Methodist Healthcare – Memphis Hospitals, Methodist Healthcare – Fayette Hospital and Methodist Extended Care Hospital.

Organization Description

MLH is an integrated, not-for-profit healthcare delivery system based in Memphis, Tennessee, with 1,665 total licensed beds. Our hospital system (see Figure 1) includes home health services, outpatient surgery centers, minor medical centers, diagnostic centers, sleep centers and a hospice residence that serve the entire Mid-South (see Figure 2). Areas of expertise include The Brain and Spine Institute, The Transplant Institute, The Cancer Center, The Cardiovascular Institute and pediatrics at Le Bonheur Children's Hospital. MLH has been affiliated with The United Methodist Church since 1918. MLH combines a dedication to clinical excellence with a faith-based commitment to care.

MLH, centered in Shelby County, is one of Tennessee's largest healthcare providers, serving populations of diverse socio-economic characteristics across a large area of West Tennessee, North Mississippi, and East Arkansas. MLH's principal acute care subsidiary organization is Methodist Healthcare – Memphis Hospitals, a not-for-profit corporation that operates five Shelby County hospitals under a single license. Four of its hospitals, Methodist University Hospital, Methodist South Hospital, Methodist North Hospital and Methodist Le Bonheur Germantown Hospital, serve primarily adult patients. The fifth hospital, Le Bonheur Children's Hospital, is a regional tertiary/quaternary care center for pediatric patients from throughout the Methodist Healthcare region. MLH also owns and operates Methodist Healthcare – Fayette Hospital, the only hospital in Fayette County, Tennessee as well as Methodist Extended Care Hospital, a long-term care hospital located on the Methodist University Hospital campus. The most recent addition to the MLH family is Methodist Healthcare – Olive Branch Hospital which opened in DeSoto County, Mississippi in August 2013. The needs of the DeSoto community are included in this document, yet the Strategic Implementation Plan will be included in future planning documents.

Methodist Healthcare - Memphis Hospitals (MHMH) Methodist Memphis was chartered in 1922 by the Memphis, North Mississippi and North Arkansas Annual Conferences of The United Methodist Church as the successor to a corporation chartered in 1918 in Mississippi. Methodist University is located in the downtown Memphis Medical Center on the site of the original Methodist Hospital, which opened in 1921 with 72 private rooms. Methodist Memphis has grown consistent with community needs for over three-quarters of a century. In 1995, Methodist Memphis merged with Le Bonheur Children's. Methodist Memphis now owns and operates five acute care hospitals in the Memphis area, including Methodist University, the system's flagship tertiary care hospital

Methodist University Hospital Methodist University is the 617 licensed acute bed flagship facility of MHMH. As the principal teaching facility for the University of Tennessee Health Science Center (UTHSC) in the Memphis area, academic training meets application and practice. At Methodist University, a staff of more than 2,500 Methodist associates focuses on providing patient and family-centered healthcare services. The following specialty areas provide cutting-edge technology and offer the latest and most advanced procedures to patients in the Mid-South: The Transplant Institute with a nationally ranked Liver Transplant Program; The Brain and Spine Institute, with the largest brain attack program in Tennessee; cardiology and cardiovascular services, with the largest STEMI program in Tennessee; oncology; Center for Emergency Medicine; Certificate of Distinction from The Joint Commission as a Primary Stroke Center and AMI Center. Methodist University has established areas of focus to provide comprehensive regional tertiary care for cardiac, cancer, neurologic and transplant patients.

Methodist South Hospital Methodist South was opened in the Whitehaven community 1973 to serve the strong population growth in south Shelby County and north Mississippi. Methodist South currently has 156 licensed acute beds. Methodist South provides a full complement of general acute care services, including maternity, cancer care, critical care, same day surgery, 24-hour emergency care, full cardiac services and dialysis services, and includes a Level 2 neonatal intensive care unit (NICU).

Methodist North Hospital Methodist North was opened in 1978 in the Raleigh community to support the growing needs of north Shelby County and neighboring Tipton County. Methodist North currently has 246 licensed acute beds. Methodist North provides general acute care services including cancer care, critical care, same day surgery, 24-hour emergency care, full cardiac services and orthopedic surgery.

Methodist Le Bonheur Germantown Hospital In 1993, Methodist Memphis purchased Methodist Germantown, a hospital in Germantown, Tennessee, a suburb to the east of Memphis. In 2010, the Women's and Children's Pavilion opened and was awarded Leadership in Energy Efficiency Design (LEED) Gold Certification by the U.S. Green

Building Council. The expansion project added 100 beds to the campus, bringing the total licensed bed count up to 309. Several renovations and expansions occurred including additional operating rooms, cardiac services expansion and family care spaces. Among the many services offered by Methodist Germantown are a Maternity Center with a Level 3 NICU, Le Bonheur pediatric inpatient unit, comprehensive cardiology program, critical care services, orthopedic surgery program, outpatient diagnostic imaging center and a 24 hour emergency department staffed and equipped to meet the healthcare needs of both children and adults.

Le Bonheur Children's Hospital In October 1995, Le Bonheur Children's merged into Methodist Memphis. Le Bonheur Children's is ranked as a Best Children's Hospital by *U.S. News and World Report*. The Mid-South's only comprehensive pediatric facility, Le Bonheur operates the only pediatric ACS level 1 trauma center and level 3C NICU in the region. In 2010, the hospital moved into a new 255 licensed acute bed replacement facility on a campus that includes a newly renovated Research Center and Outpatient Center. In 2012, the new patient tower was awarded LEED Silver Certification by the U.S. Green Building Council. Le Bonheur Children's is the primary pediatric teaching hospital for the UTHSC at Memphis. Le Bonheur Children's provides numerous specialty services including liver and kidney transplantation, brain tumor resections, cardiothoracic surgery, and invasive and non-invasive cardiac laboratories. Le Bonheur Children's also maintains laboratories where medical scientists perform research in many areas including neuroscience and infectious and respiratory diseases. In addition to the acute care hospital, Le Bonheur Children's provides urgent care, outpatient surgery and subspecialty clinics throughout the Mid-South in ambulatory settings, and partners with various West Tennessee school systems to provide school-based nursing services, health screenings, and health education. Le Bonheur Children's also collaborates with St. Jude Children's Research Hospital (St. Jude) in many program areas, such as brain tumors and sickle cell disease, through joint protocols and shared medical staff. St. Jude is one of the world's premier centers for research and treatment of catastrophic diseases in children and is located in Memphis approximately 1.3 miles from Le Bonheur Children's facilities.

Methodist Healthcare - Fayette Hospital Methodist Fayette owns and operates a 46 licensed bed acute care general service hospital located in Somerville, Tennessee. There are no other acute care hospitals in Fayette County. Methodist Fayette's services include radiology, laboratory, pharmacy, 24-hour emergency care and an ambulatory care center. Methodist Fayette offers a range of primary and secondary care services, primarily in the family practice specialty. An ambulatory care center provides, in addition to family practice, services in urology, hematology/oncology, ophthalmology, cardiology and podiatry.

Methodist Extended Care Hospital, Inc. Methodist Extended Care Hospital (MECH) is a Tennessee nonprofit corporation that provides long-term acute care services in its 36 licensed bed facility located on the campus of Methodist University Hospital. MECH staff is trained to provide highly individualized care of patients who are medically fragile and still require specialized nursing care and intensive therapies through an extended hospital stay. While at MECH, patients get the acute care they need to ensure a smooth transition to home, skilled care, nursing home, rehabilitation facility or to home health care.

The multi-disciplinary patient care team includes physicians, nurses, pharmacists, medical social workers, rehabilitation therapists, respiratory therapists, specialized case managers, chaplains and patient educators. Together, they develop and implement comprehensive programs and focused care to assist the patient and family to the highest functional level. The majority of our patients stay 10-25 days. The longer length of stay and the lower nurse-patient ratio provide an opportunity for staff to develop a close, trusting and healing relationship with the patient and their families with unrestricted visiting hours. MECH services specialize in medically complex wound care, low intensity rehabilitation, cardiac rehabilitation and ventilator weaning.

Our Mission

MLH, in partnership with its medical staffs, will collaborate with patients and their families to be the leader in providing high quality, cost-effective patient- and family-centered care. Services will be provided in a manner which supports the health ministries and Social Principles of The United Methodist Church to benefit the communities we serve.

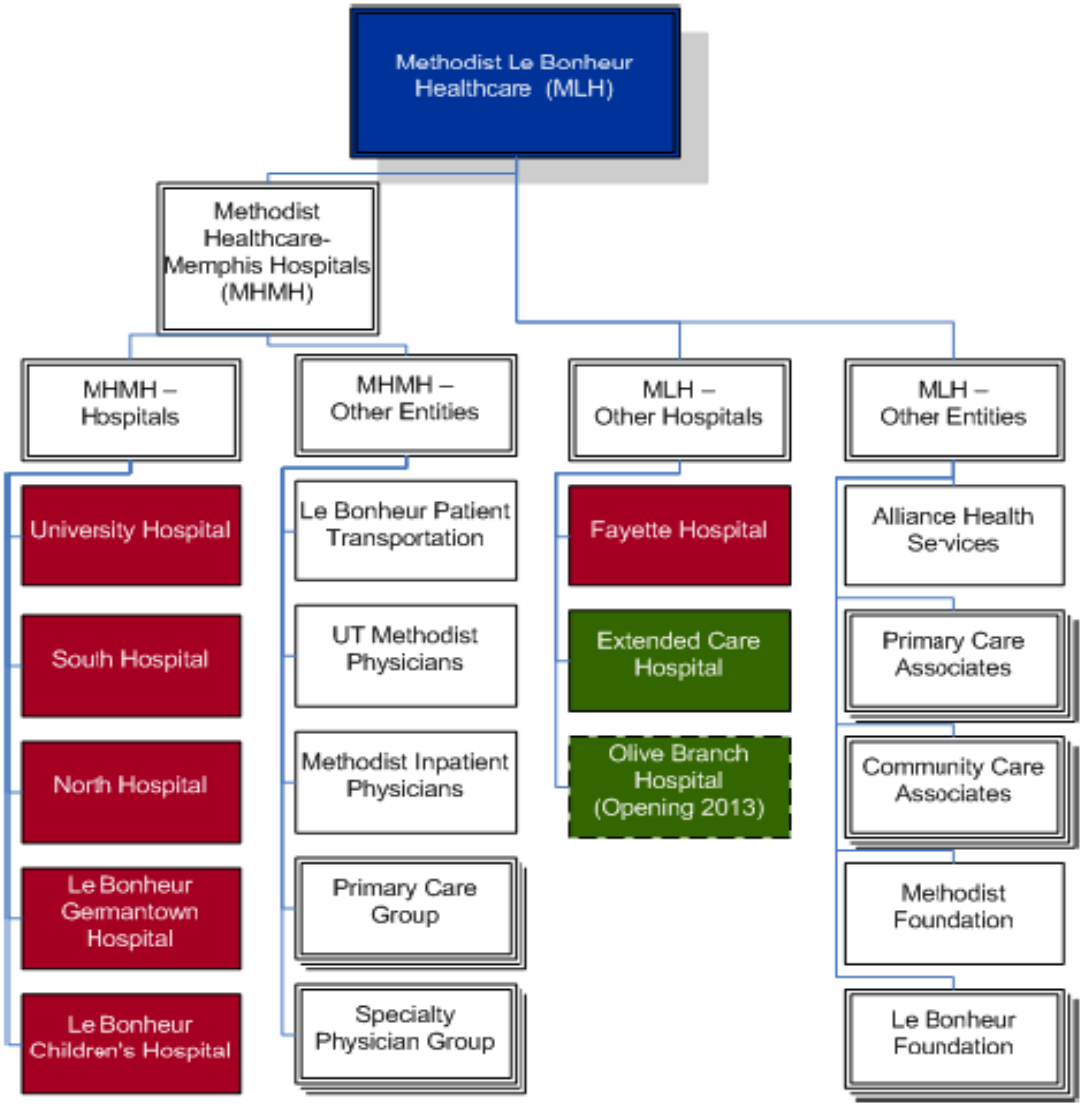
Our Vision

MLH is a faith-based healthcare system that, in partnership with its physicians, will be nationally recognized for delivering outstanding care to each patient, achieved through collaboration with patients and their families.

Our Values

Service: Patients and families are at the heart of all we do.
Quality: We consistently provide the highest quality of care through safe, proven practices.
Integrity: We accept and honor the trust placed in us through our faith-based mission.
Teamwork: Together we are better.
Innovation: We are a learning organization and embrace new ways to get better results.

Methodist Le Bonheur Healthcare Organization



Source: MLH Strategic Planning and Marketing

Figure 1

Methodist Le Bonheur Healthcare Locations

DIAGNOSTIC CENTERS

Le Bonheur East Diagnostic Center
806 Estate Place • Memphis, TN 38120
901.287.4000

Methodist Breast Center - Germantown
7945 Wolf River Boulevard • Germantown, TN 38138
901.516.9000

Methodist Diagnostic Center - Germantown
1377 S. Germantown Road • Germantown, TN 38138
901.516.9000

Methodist Diagnostic Center - Midtown
1801 Union Avenue • Memphis, TN 38104
901.516.9000

Methodist Diagnostic Center - North
3950 New Covington Pike • Memphis, TN 38128
901.516.9000

Methodist Diagnostic Center - Olive Branch
9085 Sandidge Center Cove • Olive Branch, MS 38654
901.521.7908

Methodist Diagnostic Center - South
1300 Wesley Drive • Memphis, TN 38116
901.516.9000

Methodist Diagnostic Center - Southaven
7400 Airways Boulevard • Southaven, MS 38671
662.521.7908

SURGERY CENTERS

Hamilton Eye Institute and Surgery Center
930 Madison, Suite 370 • Memphis, TN 38163
901.448.3900

Le Bonheur East Surgery Center
786 Estate Place • Memphis, TN 38120
901.287.4100

Methodist Surgery Center - Germantown
1363 Germantown Road • Germantown, TN 38138
901.624.6634

Methodist Surgery Center - North
3950 New Covington Pike, Suite 100 • Memphis, TN 38128
901.373.1991

Wolf River Surgery Center
1325 Wolf Park Drive, Suite 101 • Germantown, TN 38138
901.252.3403

SLEEP CENTERS

Methodist Sleep Disorders Center
5050 Poplar Avenue, Suite 300 • Memphis, TN 38117
901.683.0044

Methodist Sleep Disorders Center - Olive Branch
5480 Goodman Road • Olive Branch, MS 38654
901.683.0044

MINOR MEDICAL CENTERS

Minor Medical Center - Cordova
8095 Club Parkway • Cordova, TN 38016
901.758.6035

Minor Medical Center - Hacks Cross
8071 Winchester Road • Memphis, TN 38125
901.756.6056

Minor Medical Center - Midtown
1803 Union Avenue, Suite 2 • Memphis, TN 38104
901.722.3152

Minor Medical Center - Olive Branch
5480 Goodman Road • Olive Branch, MS 38654
662.893.9800

WOUND HEALING CENTERS

North Comprehensive Wound Healing Center
3950 New Covington Pike, Suite 350 • Memphis, TN 38128
901.516.5766

South Comprehensive Wound Healing Center
1251 Wesley Drive, Suite 107 • Memphis, TN 38116
901.516.3730

HOSPICE & HOME CARE

Methodist Hospice Residence
6416 Quince Road • Memphis, TN 38119
901.516.1600

All other home-based services:
6400 Shelby View Drive • Memphis, TN 38134
901.516.1400

FOUNDATION

Methodist Healthcare Foundation
1211 Union Avenue, Suite 450
Memphis, TN 38104
901.516.0500

OUR OTHER LOCATIONS

Methodist Le Bonheur Healthcare is proud to have aligned with many physician practices over the last couple of years, and that number will continue to grow in 2013.

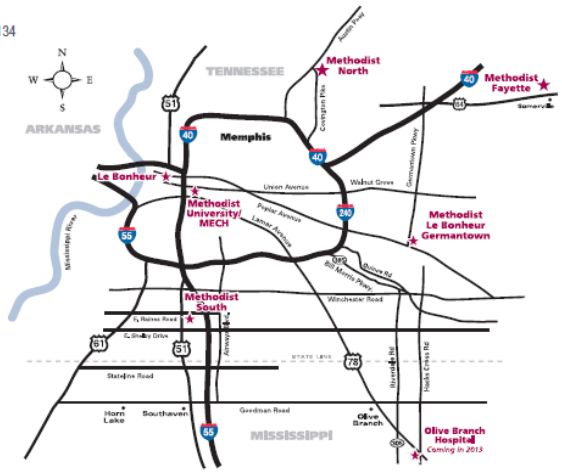
PRIMARY CARE GROUPS

- Eastmoreland Internal Medicine
- Foundation Medical Group
- Germantown Internal Medicine Associates
- The Internal Medicine Clinic
- Jordan Internal Medicine
- Kraus Internal Medicine
- Lakeland Family Medicine
- McClatchy Medical Center
- Methodist Teaching Practice
- MidSouth Family Medicine
- Midtown Internal Medicine
- Motley Internal Medicine
- Peabody Family Care
- PennMarc Internal Medicine
- Primary Health Care
- Southwind Medical Specialists

SPECIALTY CARE GROUPS

- OB/GYN Associates of the Mid-South
- Sutherland Cardiology Clinic
- The Cardiovascular Center
- Germantown Surgical Associates
- Loiseau General Surgery
- Methodist Shoulder & Orthopaedic Surgery
- Thaddeus B. Gaillard Jr. M.D.

We are also proud to partner with The West Clinic, the Mid-South's premier adult cancer treatment center.



Source: MLH Strategic Planning and Marketing, facilities listed as of April 2012

Figure 2

Service Area

MLH serves the residents in an area spanning three states including Tennessee, Arkansas and Mississippi. The System's service area is defined by aggregating patient origin in rank order of originating county and zip code (see Table 1; Figure 3). We define our primary service area as that which represents 75 percent of discharge volume. We consider the next 15 percent of patient discharge origin our secondary area. The defined service area for this CHNA is based on the communities in which the majority of our patients reside and in which we have a hospital presence. We selected Shelby and Fayette counties in Tennessee and DeSoto County in Mississippi as the area of focus of the 2012 CHNA.

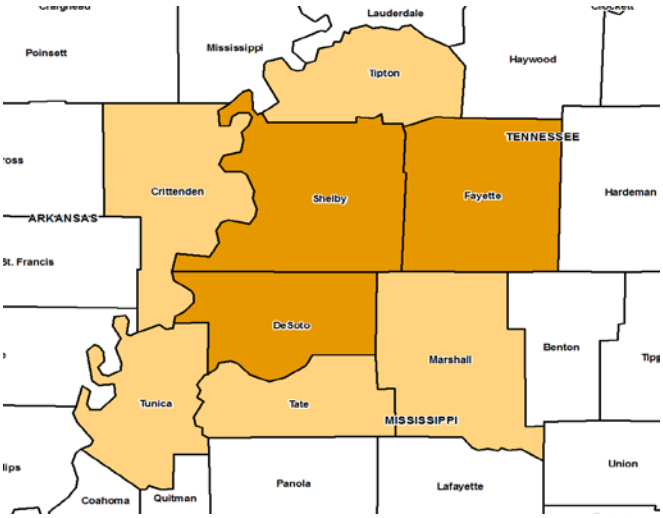
Patient Origin by County

MLH Patient Origin	County	State	Percent of Total Discharges
Primary Region	**Shelby**	TN	74.1%
Primary Region Total			**74.1%**
Secondary Region	**DeSoto**	MS	5.3%
	Tipton	TN	4.0%
	Crittenden	AR	2.9%
	Fayette	TN	2.0%
	Marshall	MS	1.2%
Secondary Region Total			**15.3%**
Tertiary Region Total	**Others**		**10.6%**
Grand Total			**100.0%**

Source: MLH Internal Ascent Data

Table 1

CHNA Geographic Area of Focus



Source: Healthcare Advisory Board, Crimson Market Advantage

Figure 3

Executive Summary

With the passage of the Affordable Care Act, tax- exempt hospitals are required to:

- Conduct a CHNA for the defined community, at least every three years
- Secure input representing broad interests of the community served
- Prioritize community needs
- Identify organizations in the community that serve these needs
- Make CHNA findings widely available
- Develop implementation strategies for each priority identified (see Figure 4)
- Report to the Internal Revenue Service as an attachment to the 990 tax form how it is meeting its implementation plan

The CHNA enables strategic planning with a focus on activities that positively impact the health of our community through a continuum of care tailored to meet the unique needs of women, infants, seniors and racial, ethnic and linguistic minorities. Thus, besides fulfilling the new requirements for section 501(c)(3) status, the CHNA helps to identify community health needs in our System's service area and determine resource availability to guide appropriate resource allocation.

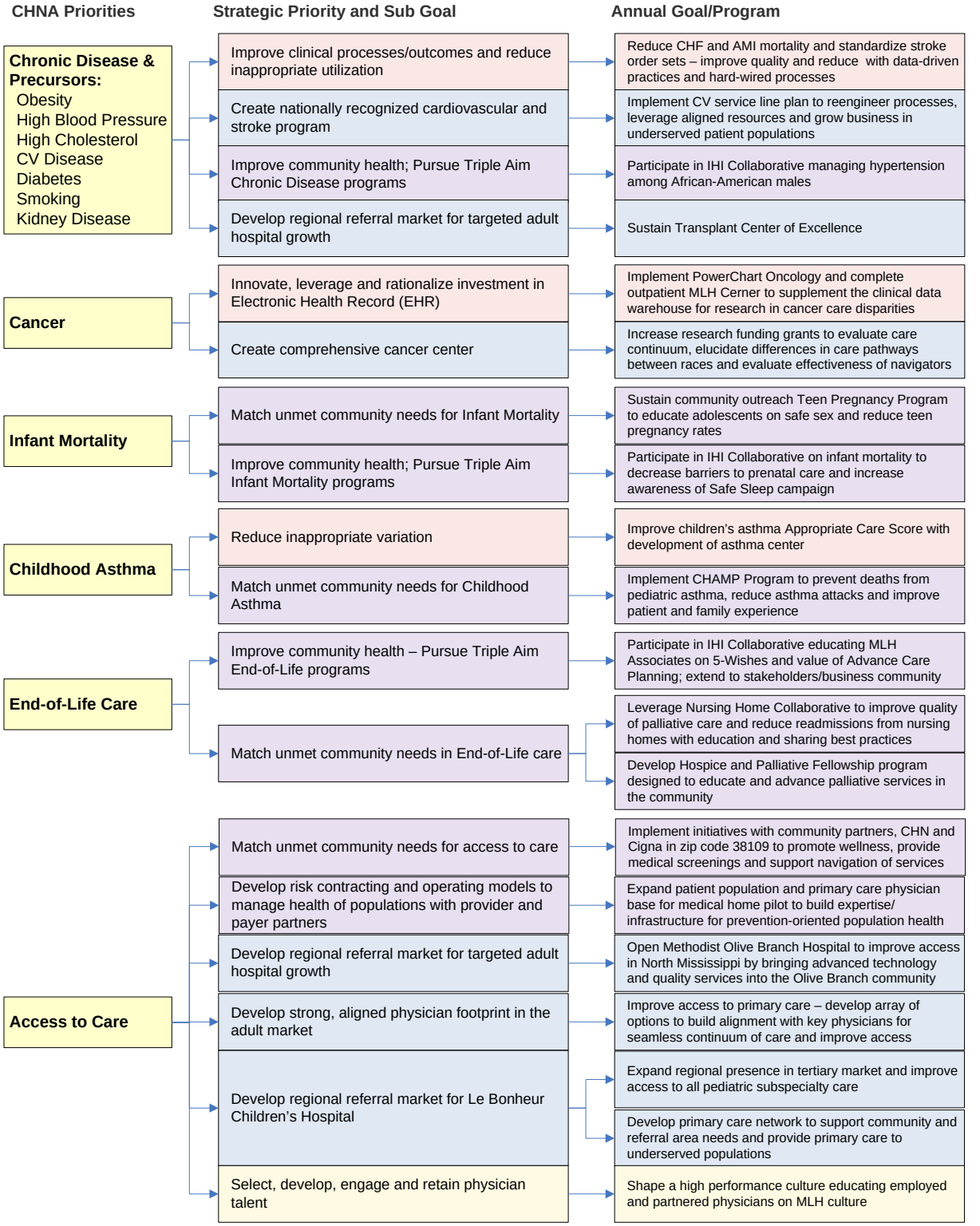
MLH is committed to undertaking a community-wide process to develop a comprehensive CHNA representing the community needs in our service area. The process includes regional- and county-specific secondary data collection. Primary data was collected via community surveys and in-depth interviews with hard-to-reach individuals and a wide range of public and private organizations.

Purpose

This CHNA has been completed for a variety of reasons, chief among them being:

- To help meet the hospital's mission of enhancing the health of the people and communities it serves
- To comply with the Patient Protection and Affordable Care Act of 2010 and maintain the hospital's tax-exempt status
- To establish community health needs for the hospital's service area to help prioritize resource allocation
- To gather data that can be used in other efforts to obtain grants and qualify for awards and certifications
- To identify existing resources within the MLH communities, forge partnerships with these entities and facilitate the coordination of care
- To create a sustainable process for conducting CHNA that can be replicated annually and inform the strategic planning process

Community Health Needs Strategic Implementation Plan



Source: MLH Strategic Planning and Marketing

Figure 4

Profile of the Community

Demographics

MLH primarily serves zip codes in Shelby and secondarily Fayette and DeSoto counties in Tennessee and Mississippi. The following tables depict demographic and socioeconomic characteristics of MLH's service area for the most recent period available. The total population of Shelby County, the county of origin for nearly 75 percent of MLH patients, has a total population of just fewer than one million individuals and will grow by approximately one percent over the next five years (see Table 2).[i] DeSoto and Fayette counties are projected to have the most robust percentage growth through 2017. DeSoto is most notable with projected growth of more than 23,000 people in five years (see Table 2). The population distribution by age for Shelby and DeSoto counties differ from the State and National distributions with higher proportions of individuals less than 18 years of age and lower proportions of those greater than 65 years of age (see Table 4). Shelby County has a much higher proportion of Black Non-Hispanic population compared to the State and Nation and has the highest proportion of Hispanic population by county when compared to DeSoto and Fayette (see Table 5).

Service Area Population Statistics

Report Area	2000 Total Pop	2012 Total Pop	2017 Total Pop	% Change 2012-2017
DeSoto	105,402	167,513	190,807	13.9%
Fayette	23,600	35,668	39,553	10.9%
Shelby	902,572	936,133	946,735	1.1%
MS	2,844,661	2,997,336	3,081,920	2.8%
TN	5,683,067	6,433,632	6,694,670	4.1%
USA	281,421,886	313,095,504	325,256,783	3.9%

Source: Truven Health Analytics – Market Expert

Table 2

Service Area Population Distribution by Gender

Report Area	Males			Females		
	2012	2017	% Change	2012	2017	% Change
DeSoto	82,963	94,379	13.8%	84,550	96,428	14.0%
Fayette	17,476	19,363	10.8%	18,192	20,190	11.0%
Shelby	446,366	453,239	1.5%	489,767	493,496	0.8%
MS	1,454,868	1,500,004	3.1%	1,542,468	1,581,916	2.6%
TN	3,139,564	3,270,038	4.2%	3,294,068	3,424,632	4.0%
USA	154,449,013	160,510,076	3.9%	158,646,491	164,746,707	3.8%

Source: Truven Health Analytics – Market Expert

Table 3

Service Area Population Distribution by Age

Report Area	Age < 18				Age 18-64				Age 65+			
	2012		2017		2012		2017		2012		2017	
	Count	% of Total	Count	% of Total	Count	% of Total	Count	% of Total	Count	% of Total	Count	% of Total
DeSoto	47,654	28.4%	52474	27.5%	103,120	61.6%	116,057	60.8%	16,739	10.0%	22,276	11.7%
Fayette	8,408	23.6%	9,307	23.5%	22,645	63.5%	24,197	61.2%	4,615	12.9%	6,049	15.3%
Shelby	255,411	27.3%	255,177	27.0%	585,430	62.5%	581,168	61.4%	95,292	10.2%	110,390	11.7%
MS	780,068	26.0%	797,559	25.9%	1,835,535	61.2%	1,852,123	60.1%	381,733	12.7%	432,238	14.0%
TN	1,529,252	23.8%	1,579,434	23.6%	4,046,743	62.9%	4,105,738	61.3%	857,637	13.3%	1,009,498	15.1%
USA	76,658,741	24.5%	78,723,481	24.2%	196,186,413	62.7%	200,024,110	61.5%	40,250,350	12.9%	46,509,192	14.3%

Source: Truven Health Analytics – Market Expert

Table 4

Service Area Population Distribution by Race

Report Area	White Non-Hispanic		Black Non-Hispanic		Hispanic		Asian & Pacific Islander Non-Hispanic		All Others		Total	
	2012 Pop	% of Total	2012 Pop	% of Total	2012 Pop	% of Total	2012 Pop	% of Total	2012 Pop	% of Total	2012 Pop	% of Total
DeSoto	113,740	67.9%	39,570	23.6%	9,197	5.5%	2,367	1.4%	2,639	1.6%	167,513	100.0%
Fayette	24,602	69.0%	9,436	26.5%	902	2.5%	298	0.8%	430	1.2%	35,668	100.0%
Shelby	353,362	37.7%	489,006	52.2%	57,061	6.1%	22,581	2.4%	14,123	1.5%	936,133	100.0%
MS	1,724,137	57.5%	1,109,778	37.0%	89,293	3.0%	27,940	0.9%	46,188	1.5%	2,997,336	100.0%
TN	4,828,852	75.1%	1,066,775	16.6%	319,336	5.0%	99,226	1.5%	119,443	1.9%	6,433,632	100.0%
USA	196,688,510	62.8%	38,363,681	12.3%	53,183,255	17.0%	15,746,511	5.0%	9,113,547	2.9%	313,095,504	100.0%

Source: Truven Health Analytics – Market Expert

Table 5

Service Area Population Distribution by Education Level

Report Area	Less than High School		Some High School		High School Degree		Some College/Assoc. Degree		Bachelor's Degree or Greater	
	Pop Age 25+	% of Total	Pop Age 25+	% of Total	Pop Age 25+	% of Total	Pop Age 25+	% of Total	Pop Age 25+	% of Total
DeSoto	4,287	4.0%	9,282	8.7%	33,403	31.3%	36,494	34.2%	23,132	21.7%
Fayette	1,651	6.7%	2,502	10.2%	8,610	35.1%	6,593	26.9%	5,143	21.0%
Shelby	28,864	4.9%	61,375	10.4%	163,308	27.6%	177,328	29.9%	161,765	27.3%
MS	135,120	7.1%	246,390	12.9%	586,157	30.8%	566,513	29.7%	371,097	19.5%
TN	286,236	6.6%	455,932	10.6%	1,426,484	33.1%	1,160,982	26.9%	983,482	22.8%
USA	12,983,704	6.3%	17,782,698	8.6%	59,226,337	28.7%	58,786,469	28.5%	57,335,469	27.8%

Source: Truven Health Analytics – Market Expert

Table 6

Service Area Population Distribution by Household Income

Report Area	<$15K		$15-25K		$25-50K		$50-75K		$75-100K		Over $100K	
	HH Count	% of Total	HH Count	% of Total	HH Count	% of Total	HH Count	% of Total	HH Count	% of Total	HH Count	% of Total
DeSoto	5,052	8.4%	4,953	8.3%	16,493	27.5%	14,359	24.0%	9,526	15.9%	9,564	16.0%
Fayette	1,964	14.8%	1,242	9.4%	3,190	24.1%	2,832	21.4%	1,760	13.3%	2,267	17.1%
Shelby	58,393	16.5%	42,244	11.9%	99,152	28.0%	64,528	18.2%	37,414	10.5%	52,994	14.9%
MS	239,859	21.2%	158,594	14.0%	331,137	29.2%	195,936	17.3%	98,672	8.7%	109,881	9.7%
TN	417,722	16.5%	321,624	12.7%	754,122	29.8%	478,339	18.9%	247,542	9.8%	309,615	12.2%
USA	15,369,795	13.0%	12,820,377	10.8%	31,615,999	26.7%	23,106,564	19.5%	14,092,107	11.9%	21,577,709	18.2%

Source: Truven Health Analytics – Market Expert

Table 7

Community Partners and Resources

Community Health Asset Mapping Since 2008, MLH has held many Community Health Asset Mapping Partnership (CHAMP) workshops to improve population health. The CHAMP initiative was derived from the Participatory Inquiry into Religious Health Assets, Networks, and Agency (PIRHANA) research tool developed by the African Religious Health Assets Program (ARHAP). Rather than focusing on the problems and deficiencies in communities, CHAMP seeks to identify positive assets already-existing within communities.

To date, CHAMP workshops have taken place in Frayser, Orange Mound, Binghampton, McLemore-LeMoyne Owen and Riverview-Kansas communities in Memphis, Tennessee. Such grassroots initiatives have created catalogues of community-identified assets and relationships, many through the mapping process itself. CHAMP's mission is to align these community health assets to improve access to healthcare, eliminate disparities and improve the health status of all who live in Memphis by 2020.

Healthy Shelby Healthy Shelby is a collaborative of hospitals, health care providers, social service providers and local government leaders working with the Institute for Health Improvement (IHI), to address the county's most critical health problems: Infant Mortality, End-of-Life Care and Chronic Disease. MLH joins the Regional Medical Center, Baptist Memorial Healthcare and Saint Francis Hospital as health care leaders in this collaborative housed at the Healthy Memphis Common Table (the regional health improvement collaborative significantly supported by the Robert Wood Johnson Foundation). Two-year funding was secured to launch these projects for better population health, improved patients' experience of care, and lower healthcare costs.

Christ Community Health Services Christ Community Health Services (CCHS) is a faith-based community health system, serving the uninsured, homeless and others in need through six health centers, three dental clinics, three pharmacies and a mobile health van. CCHS health services include pediatric and adult primary care, general surgery, obstetrics/gynecology, Title X family planning, HIV care management, refugee care, vaccinations, social work and various outreach programs. *Source: christcommunityhealth.org*

Church Health Center The Church Health Center (CHC) is a faith-based nonprofit organization providing care to low-income Shelby County residents in an urban clinic, and offering employers an affordable healthcare program for lower-wage, uninsured working people. CHC services include primary and specialty care, dentistry, eye care and counseling. Through its wellness ministry, CHC also offers services ranging from personalized exercise plans and cooking classes, to group exercise classes and activities for children and teens. *Source: churchhealthcenter.org*

Memphis Health Center, Inc. (MHC) Memphis Health Center, Inc. (MHC) offers health services through a primary care delivery system, which emphasizes preventive health and wellness. MHC serves both urban and rural populations. Clinical services include immunizations and early

screening, family practice, obstetrics and gynecology, internal medicine, HIV/AIDS primary medical services, dental, medical laboratory, pediatrics, pharmacy, radiology, ophthalmology, homeless services, student health services and podiatry. MHC also has support and enabling services, such as social services, case management, health education, transportation, WIC, family planning, Community Health Outreach Education Service Program, and Community Network Program. *Source: http://www.memphishealthcenter.org/about-us.php*

University of Tennessee Health Science Center The University of Tennessee Health Science Center (UTHSC) is our academic affiliate. As of September 1, 2013, Methodist partnered with UT Medical Group (UTMG) and the UTHSC to create a new academic physician practice group designed to enhance the delivery of specialty care and hospital-based medical services in the Memphis area. The new group, called UT Methodist Physicians (UTMP) includes UTMG physicians who have a strong history of affiliation with MLH. This partnership will advance the Academic Medical Center model and work to improve the health of the overall community, raise the level of medical practice for adults and seek to achieve clinical best practices. Le Bonheur Children's Hospital serves as the UTHSC's principal pediatric teaching site.

UTMP is similar to the successful formation in 2011 of UT Le Bonheur Pediatric Specialists (ULPS). ULPS, a partnership between the UTHSC and Le Bonheur Children's Hospital, is a multi-speciality group with more than 100 pediatric specialists**.** The physicians and nurses care for patients, lead research to prevent and eliminate childhood diseases and act as teachers to pass their knowledge to the next generation of healthcare professionals. The combination of research and clinical care ensures the most advanced level of pediatric care for the community.

Data Assessment / Methods

Shelby County MAPP Process

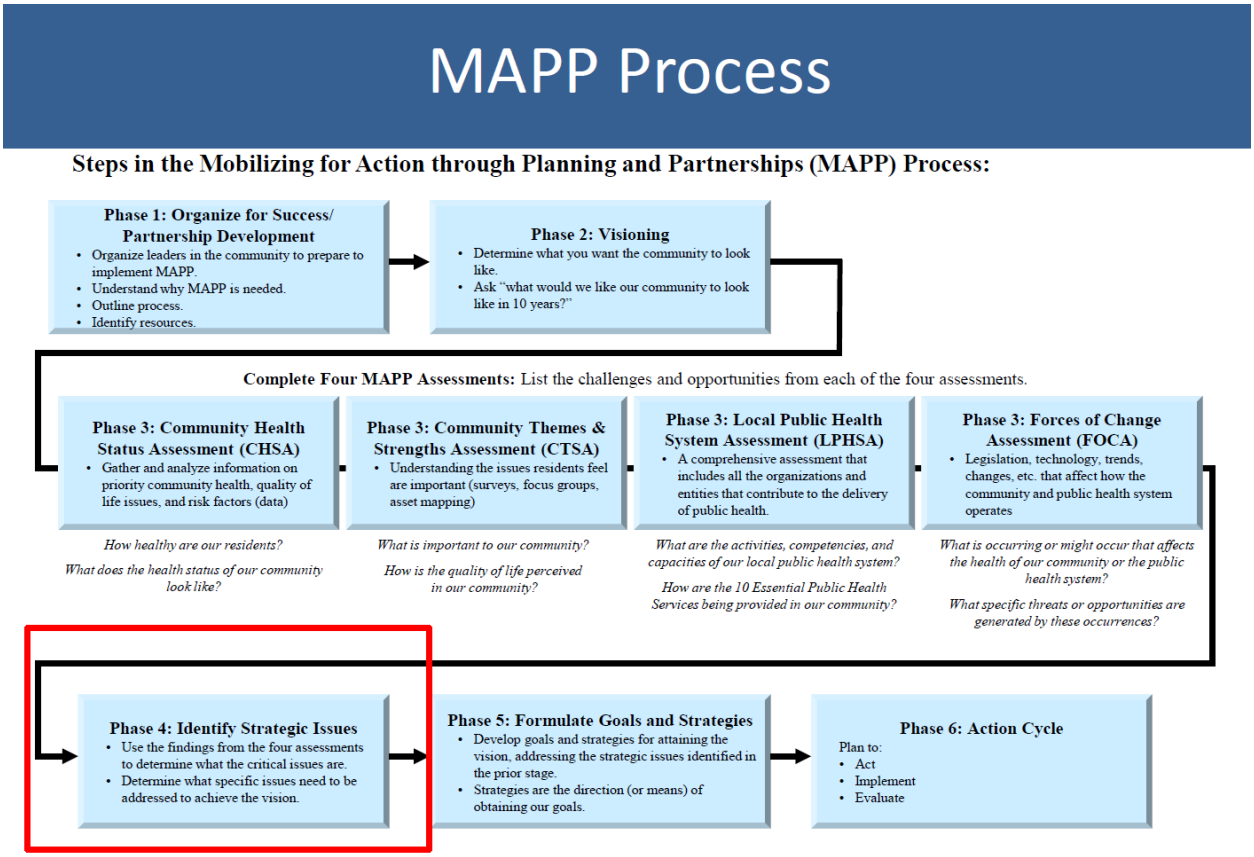
In 2011-12, MLH in partnership with the Shelby County Health Department and other key community stakeholders completed a CHNA to identify unmet health needs in the communities we serve. This was a comprehensive analysis of needs including demographic, epidemiologic, utilization and socio-economic factors resulting in the identification and prioritization of community health needs at the local level. This information was then incorporated into our annual strategic planning process. In Shelby County, the Health Department was in the process of developing their Mobilizing for Action through Partnerships and Planning (MAPP) analysis; MLH had representation on the steering committees and served on other subsidiary committees that gathered data.

What is MAPP?

Mobilizing for Action through Planning and Partnerships (MAPP) is a strategic approach to community health improvement. As a tool, MAPP helps communities improve health and quality of life through a community-wide and community-driven strategic planning process (see Figure 5). Through MAPP, communities seek to achieve optimal health by identifying and using their resources wisely, taking into account their unique circumstances and needs and forming effective partnerships for strategic action. MAPP is intended to result in the development and implementation of a community-wide strategic plan for community health improvement.

MAPP focuses on strengthening the entire local public health system rather than separate pieces by bringing together diverse interests to collaboratively determine the most effective way to conduct community health activities. This nurturing and development of a strong community consensus around the needs of the local public health system is viewed as a springboard towards future collective action and collective impact.

The MAPP tool was developed by the National Association of County and City Health Officials (NACCHO) in cooperation with Centers for Disease Control and Prevention's (CDC) Public Health Practice Program Office through a work group of local health officials, CDC representatives, community representatives and academicians between 1997 and 2000. Since MAPP's creation it has been used in hundreds of communities throughout the United States.



Source: Shelby County Health Department

Figure 5

The MAPP process has four distinct components, which include:

1. Community Themes and Strengths Assessment (CTSA)
   Provides rich understanding of issues residents feel are important

2. Community Health Status Assessment (CHSA)
   Identifies priority community health and quality of life issues

3. Forces of Change Assessment (FoCA)
   Identifies forces (legislation, technology, etc.) that influence context in which the community and health operate

4. Local Public Health System Assessment (LPHSA)
   All of the organizations, systems that contribute to delivery of public health services in the community

At the time of the writing of this CHNA, the MAPP process was in its fourth phase (see Figures 6 and 7). The community survey (CDC-pilot survey) resulted in 1,544 surveys with 968 completed online and 576 shorter surveys completed in-person. Three focus groups were conducted, two with Friends for Life and one with the Memphis Gay and Lesbian Community Center Young Adult Group.

Preliminary findings of health issues identified by the community ranked obesity, diabetes, high blood pressure, mental health, homicide/murder and cancer as the leading issues facing residents of Shelby County (see Figure 8). Preliminary findings of community-related behaviors ranked unsafe sex, poor nutrition, illegal drug use, physical inactivity and tobacco use/smoking as the leading health behavior issues facing residents Shelby County (see Figure 9). The relationship of unhealthy behaviors and health issues is evident in the results, particularly when linking physical inactivity with obesity, for example. Finally, the proportion of people living below poverty, the related unemployment rate and rate of uninsured are all higher among Shelby County residents when compared to the State and Nation (see Figure 10).

MAPP Timeline: Where have we been?

Phase	Description	Date	Notes
Phase I	Organize for Success/ Partnership Development	Dec 1 – Dec 31, 2012	Core group meeting 12/19/12
Phase II	Visioning	Jan 1 – Mar 1, 2013	Kick-off event 2/1/13 Draft Vision/Values
Phase III	Four Assessments	Mar – Sept 2013	Plan & conduct the four assessments

Source: Shelby County Health Department

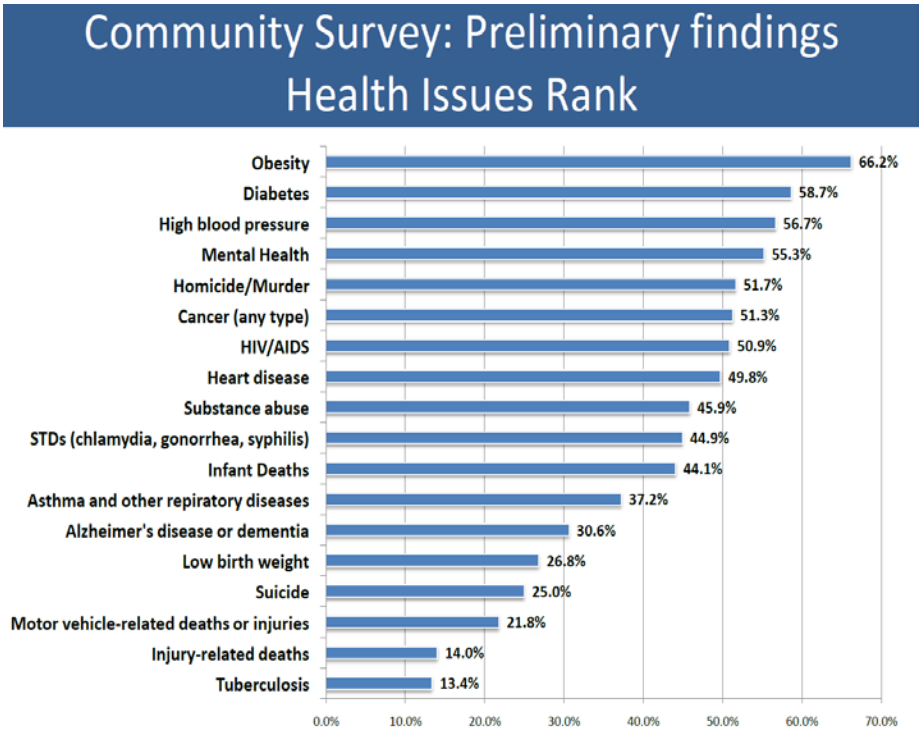
Figure 6

MAPP Timeline: Where are we going?

Phase	Description	Date	Notes
Phase IV	***Identify Strategic Issues***	***Oct – Nov 2013***	***Via MAPP meetings and MAPP Steering Committee***
Phase V	Formulate Goals & Strategies	Dec 13 – Jan 14	Via Strategic Issue Working Groups
Phase VI	The Action Cycle	Jan 2014 - onward	Evaluate action steps and activities Report back to community

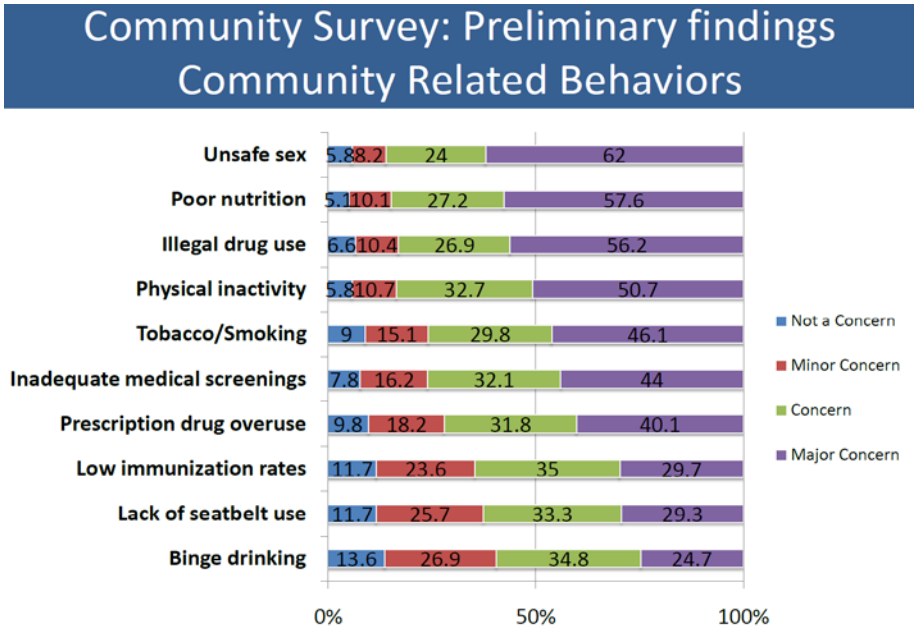
Source: Shelby County Health Department

Figure 7



Source: Shelby County Health Department

Figure 8



Source: Shelby County Health Department

Figure 9

Socioeconomic Characteristics			
	Shelby County	Tennessee	United States
Percent below Poverty Level			
Children	30.3%	24.0%	19.9%
Total persons	20.1%	16.8%	14.3%
Median Household Income	$44,391	$41,693	$52,762
Percent receiving SNAP benefits	27.8%	20.5%	14.5%
Employment- Percent Unemployed	9.8%	8.4%	7.6%
Special Populations			
Population with less than HS diploma	14.4%	16.8%	14.6%
Receiving Medicaid	24.5%	18.5%	19.9%
Veteran population	9.1%	10.5%	9.6%
Linguistically isolated households	2.8%	1.8%	5%
Population without health insurance[1]	16.3%	14.1%	15.2%
Homeless persons estimates[3]	1,942	2,638	656,129
Population ages 65 and older	10.2%	13.5%	12.9%

Source: Shelby County Health Department

Figure 10

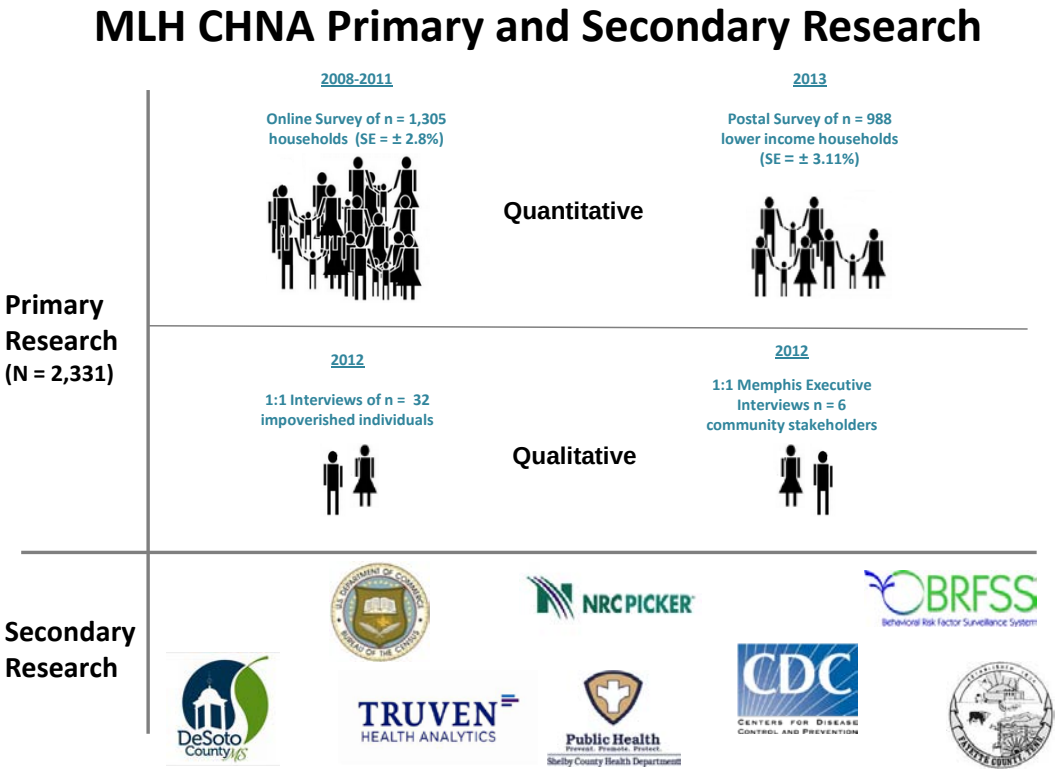
Governor's Health and Wellness Initiative

The Governor's Campaign for Health and Wellness, Healthy Tennessee summarizes three key areas of focus for the State including: making physical activity an integral part of everyday life; increasing the consumption of healthy food and beverages in the right portions; and reducing tobacco use. [ii] The Governor's vision is to enable and encourage more Tennesseans to lead healthier lives and thereby lower healthcare costs, reduce absenteeism, increase productivity and improve the overall quality of life in the State. Comparing Shelby County to the State during the MAPP process, Shelby County has an opportunity to significantly improve health outcomes in all three priority areas.

CHNA Process

Given full results from MAPP are not expected until Phase V in mid-January 2014, MLH conducted primary surveys of residents in the MLH service area utilizing a variety of methods to ensure representation from our diverse communities. Secondary data from demographics and socioeconomic sources, Tennessee and Mississippi vital statistics, disease prevalence and health indicators and statistics were collected. National, state and local sources were also used (see Figure 11).

The information was presented to the senior leadership charged with defining MLH's strategic priorities and a list of the health issues that were identified in both primary and secondary data sources was created. Management prioritized strategy based upon needs identified and resources available. Identified priorities were presented to the Faith and Health and Quality sub-committees of the MLH Board of Directors in the Fall of 2012. With Board committee approval, the CHNA implementation plan was created to meet the needs identified for 2013 and incorporated into our strategic plan and deployment map.



Source: MLH Strategic Planning and Marketing

Figure 11

Summary of Primary Research

MLH completed four primary research studies to determine the health needs of its service area population. The National Research Corporation (NRC) Consumer Health Report was completed in 2011 providing valuable information about the middle and upper income populations in the MLH service area. The NRC Consumer Health Report was an emailed survey to a random sample of greater Memphis area residents. Because the survey was email-based, we believed that the survey may have excluded the needs of low-income groups with less access to computers and internet. To augment the NRC Consumer Health Report findings, Methodist conducted a mail-based survey to individuals making less than $40,000 per year. The mailed survey was sent to a random sample of low-income consumers living in the greater Memphis area. Because Memphis is home to a relatively large homeless and housing-insecure population, Soup Kitchen Interviews were completed to capture the health needs of this high-risk population. Finally, for additional input from local employers, the MLH CEO conducted one-on-one interviews with community leaders to assess their needs. We believe the combination of survey methodologies (mail, internet and personal interviews) was the best way to accurately capture the health needs of our entire, diverse and socially/medically complex community.

NRC Consumer Health Report

Study Objectives

NRC Consumer Health Report was used to determine the health status, health risk/chronic conditions, preventive health behaviors, physician access and community perceptions of healthcare in the MLH service area.

The Consumer Health Report provided a tool to enable MLH to strengthen the health of the community by assisting on the following:

1. Measurement and evaluation of health status and healthcare utilization within the community
2. Identification of the prevalence of chronic conditions within various demographic and geographic segments within the community
3. Identification of high-risk populations
4. Identification of gaps in care and preventive health behaviors among various demographic and geographic segments within the community

Methodology

The survey document was an internet-based questionnaire which respondents received through internet invitations. The questionnaire was developed utilizing NRC's experience in the design and implementation of hundreds of consumer research studies. Questions were designed to meet the objectives determined from the combined input of marketing directors and strategic planners nationwide. The questions were presented in a clear and concise manner, in an easy-to-understand format and the questionnaire was thoroughly pre-tested in an actual field situation to ensure

respondents' question comprehension. Beginning in May 2008, ongoing data collection was implemented for the survey. Internet survey invitations begin the first of each month with returns completed by the 22nd. The respondent is the individual in the household who is most often your target for communications: the primary healthcare decision-maker. The individual most often selects the hospital, physician, healthcare products and services utilized by household members and, therefore, was the subject of the study.

Sample Size

The NRC Consumer Health Report provides a detailed view of the health needs, health status, behaviors and perceptions of residents within MLH's service area. The NRC Consumer Health Report is conducted annually across communities in over 200 of the nation's largest metropolitan statistical areas (MSA's), and is also available at state and national levels.

The MLH service area sample for 2011 was comprised of 1,305 households. The standard error range for a sample of 1,305 households is +/- 2.7 percent at the 95 percent confidence interval.

The Memphis, Tennessee, sample for 2011 was comprised of 1,211 households. The standard error range for a sample of 1,211 households is +/-2.8 percent at the 95 percent confidence interval.

The Tennessee sample for 2011 was comprised of 5,949 households. The standard error range for a sample of 5,949 households is +/- 1.3 percent at the 95 percent confidence interval.

The national sample within January – December 2011 was comprised of 278,824 households which includes the largest 180 MSAs within the U.S. The standard error range for a sample of 278,824 households is +/- 0.2 percent at the 95 percent confidence interval.

The National Sample

The survey invitations consisted of households nationally representative of the 48 contiguous United Sates. The national balancing criteria included U.S Census regions, age of head of household and population density. The survey data was electronically coded and tabulated by NRC according to an innovative and thorough tabulation specification plan.

To ensure proper sample representation within each tabulated market area, the data was weighted according to a number of key demographic variables including: age of head of household, area population, household income, race, presence of children and marital status. Weighting ensures that the sample is representative. For example, if 20 percent of the households within a market area are headed by a family member 18-24 years of age, then within the sample 20 percent of the area heads of households are 18-24 years of age. This pattern is held consistent across all variables applied in the weighting procedures.

MLH Low-Income Consumer Health Survey

Study Objectives

The MLH CHNA for households making less than $40,000 per year provides a tool to enable our organization to strengthen the health of lower income households by assisting in the following:

1. Measurement of health status and healthcare utilization within lower income households in the community
2. Identification of the prevalence of chronic conditions within lower income households in the community
3. Mapping of the high risk, lower income population
4. Identifications of gaps in care and preventative health behaviors among low income households in the community

Methodology

The MLH CHNA provides a detailed view of the health needs, health status, behaviors and perceptions of low-income households within the MLH service area.

Sample Size

The MLH service area sample size was comprised of 988 households. The standard error range for a sample size of 988 households is +/- 3.11 percent at the 95 percent confidence level. The response rate for the entire MLH market area was 5.8 percent.

Survey Instrument

The survey document is a mail-based questionnaire. The questionnaire was developed by the MLH Market Research team which has expertise in the design and implementation of many patient research studies. The NRC Consumer Health Report was also used as a guide. Questions were designed to meet the objectives determined from the combined input of marketing directors and strategic planners. The questions were presented in a clear and concise manner, in an easy-to-understand format.

Survey Timing

MLH purchased a list of 17,000 randomly selected households making less than $40,000 per year in the following market areas: Shelby County, Fayette County, and Tipton County in Tennessee, Crittenden County in Arkansas, and DeSoto County in Mississippi. The list was purchased from Truven Health Analytics. The survey was mailed in May 2013 and responses were collected through June 2013.

The Sample

The survey document was sent to households making less than $40,000 per year in the MLH primary and secondary service area. The survey data was electronically entered into Survey Monkey and tabulated and analyzed by the MLH Market Research department.

Study Objectives – Soup Kitchen Interviews

In 2012, MLH hired a market research consultant to conduct interviews at Memphis-area soup kitchens to determine the health needs of the severely impoverished population in our service area. It was necessary to specifically identify the needs of this population in interviews as our primary research internet-based and mail-based surveys would not reach this segment of our population.

Data on the homeless or housing insecure population in Memphis (estimated at about 2,000 people) is available through the Coalition for the Homeless. It is data, however, and does not reveal the needs, questions and specific situations of those who live on the streets. It also does not reveal the barriers these individuals may encounter or perceive.

Learning more about the healthcare needs of these individuals was the objective of this qualitative study.

Research Approach and Methods

The study consisted of 32 face-to-face interviews with homeless people or people in extreme poverty. These were conducted with people visiting Soup Kitchen programs in the city.

The interviews were completed on-site at the meal programs by one interviewer who was introduced to the group at each event by a program leader. The 32 interviews (ranging from approximately 7 to 15 minutes in length) were completed in five visits to meal-related programs, including those at:

- Idlewild Presbyterian Church
- First Congregational Church
- St. John's Methodist Church

The Report

In order to capture the individuality of the respondents, the interviewer took key word notes during interviews and then reconstructed their comments for this report.

Summary of Findings

One of the most important findings of this study is it was a study of ***individuals*****.** Although they may have been at the same programs, the circumstances of these individuals varied enormously. There were some common themes. Many of the respondents had ***mental health issues***. They told the interviewer they were paranoid schizophrenic, depressed, bipolar, had anxiety issues and more. Some respondents did not mention specific mental health issues but had characteristics/symptoms that may indicate these types of problems.

Another common theme was the ***lack of dental care***. The types of insurance that many of these individuals have do not usually cover dental care. A few mentioned visiting dentists when they were in pain, mostly to have teeth pulled. Others just let it go because they could not afford it. A couple of respondents talked about pulling their own teeth.

Medical care (other than dental and eye care) was somewhat more available to the respondents. They reported going to Christ Community Healthcare (clinics and mobile), The MedPlex, Midtown Mental Health, free clinics at Orange Mound and in Binghampton. Several mentioned Methodist Central (the former name of MLH's midtown Memphis facility, now known as Methodist University Hospital). Those with insurance went to these and other doctors by referral.

Medications and prescriptions were an issue for many of the respondents – some took a large number of medications (heart failure patient, liver transplant patient, HIV patients, others) and some could not afford to buy their medicines. When that was the case, most said they simply did not take the medication until they had the money to buy the medicine again (including OTC medications, painkillers, vitamins that were recommended).

The frequency of medical visits is strongly tied to medications and prescriptions – those with HIV go every 3 months because they need their prescriptions. Those with narcotics and drugs for mental illness go more often because those prescriptions are usually for just one month.

Of the 32 people interviewed, 13 said they had ***no insurance for health care***. Nineteen said they had either TennCare/BlueCare/Medicaid or Disability insurance/Medicare/SSI. Many of those who had these plans currently had experienced periods without any healthcare coverage, particularly those who applied for disability (several said it took two years to be granted).

Eleven of the respondents interviewed were on disability. Because disability payments are based on salaries when working, their situations ranged dramatically. Some were still on the streets. Others were able to afford an apartment. All were relieved to have the health insurance that is a part of being granted disability status.

Twenty-three of the 32 respondents said they had a place to live***.*** Many of these sounded unstable -- they were "***housing insecure***" – not sure when their current arrangement would end. A few said they had their own apartments or places. Others spoke of staying with friends or family (and often spoke of the unhappiness of that situation). Some were sleeping on sofas; one was staying in a garage. The other nine were on the streets.

Study Objectives – Stakeholder Interviews - Employers

As an additional input into the CHNA process, MLH's CEO interviewed CEOs of six major Memphis-area corporations to assess how MLH could best address healthcare concerns of business leaders as well as the health needs of their employees. The interviews included the following companies: AutoZone, Morgan Keegan, FedEx, Medtronic, Baker Donelson and First Horizon.

Research Approach and Methods

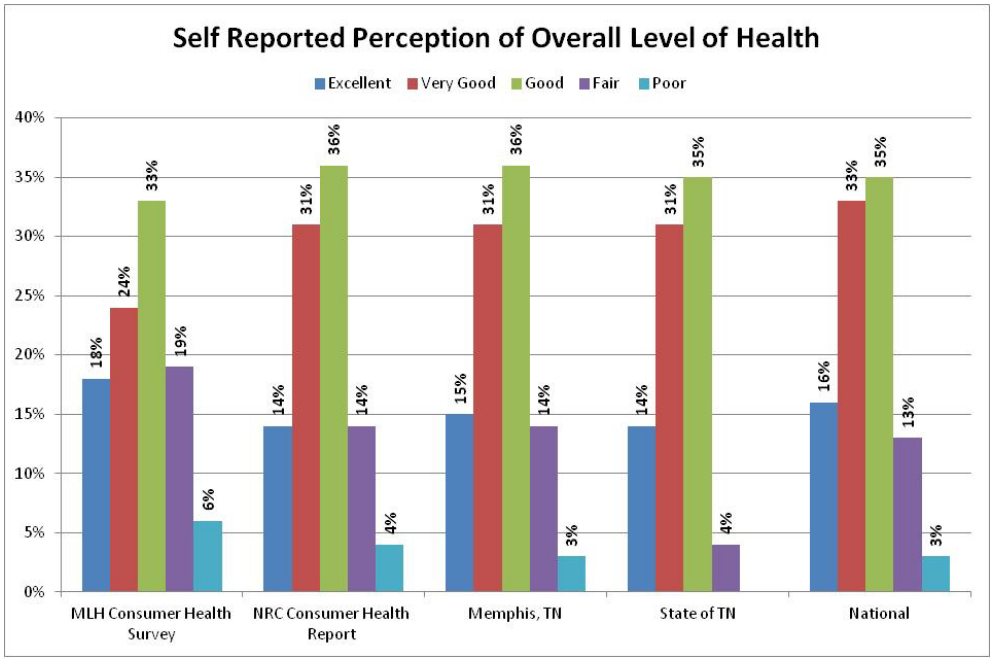
The interviews were largely unstructured with a question guide provided to encourage dialogue.

Summary of Findings

All company leaders interviewed were very interested and engaged in wellness and preventive medicine for their workforces and all are structuring their own approach. No standard approach was found to be widely embraced. All are moving to more Health Savings Account (HSA) participation and shifting more financial responsibility to the employees. The major health needs of employees identified were the cost of care and access to care. All would welcome new innovative ideas that add value – providers and health plans have the experience and data to improve the health of their respective workforces.

Common Survey Research Themes

Overall Level of Health – Perception of overall level of health in the MLH service area is lower than the national benchmark population (see Figure 12). The national population benchmark of self-reported "excellent" or "good" overall level of health is forty-nine percent. According to the NRC Consumer Health Report and MLH Low-Income Consumer Health Survey, forty-five and forty-two percent respectively reported that their overall level of health was "excellent" or "good." By general observation, Soup Kitchen interviewees were not in "excellent" or "good" health. There is a consistency between perception and reality. The MLH Service Area is home to some of the highest rates of chronic disease in the country *(Source: CDC, County Health Rankings 2012).*



Source: MLH Consumer Health Survey and NRC Consumer Health Report

Figure 12

Chronic Disease Management

Obesity – Obesity is the leading co-morbidity in the MLH service area. The Mid-South suffers from some of the highest obesity rates in the country *(Source: CDC, County Health Rankings 2012)*. However, self-reported prevalence of obesity is lower than national estimates. Only fifteen percent of NRC Consumer Health Report respondents indicated that they or someone in their household is obese and four percent indicated that they or someone in their household has participated in a weight loss program over the last twelve months.

One half of MLH Consumer Health Survey respondents reported that they or someone in their household had been told by a doctor to lose weight.

The obesity rates in Tennessee, Mississippi and Arkansas are thirty-two percent, thirty-six percent and thirty-two percent respectively. The Mid-South is home to some of the highest obesity rates in the country. The national obesity rate is twenty-five percent *(Source: Behavioral Risk Factor Surveillance System - BRFSS 2011).*

High Blood Pressure - The number one health risk factor across the MLH Service area is high blood pressure according to MLH primary research. Forty-one percent of NRC Consumer Health Report respondents reported they or someone in their household had been diagnosed with high blood pressure while only fifty-five percent of respondents indicated that they or someone over the age of 18 in their household had a blood pressure test in the last twelve months. We believe high blood pressure may be underreported because only about half of the eligible population received a blood pressure test in the last twelve months.

Seventy-three percent of MLH Low-Income Consumer Health Survey respondents reported that they or someone in their household had been diagnosed with high blood pressure.

Six out of thirty-two Soup Kitchen Interview respondents indicated that they had been diagnosed with high blood pressure.

The Mid-South has some of the highest rates of high blood pressure in the country. Thirty-nine percent of Tennessee adults, thirty-nine percent of Mississippi adults and thirty-six percent of Arkansas adults have been told by a doctor that they have high blood pressure. The national average for high blood pressure in the United States is thirty-one percent *(Source: BRFSS 2011)*.

High Cholesterol – High cholesterol is one of the most prevalent health conditions in the MLH service area. Twenty-nine percent of NRC Consumer Health Report respondents reported that they or someone in their household had been diagnosed with high cholesterol while only thirty-four percent indicated that they or someone in their household over the age of 18 had a cholesterol test in the last twelve months. We believe the prevalence of high cholesterol may be underreported because only one third of the eligible population received a cholesterol test in the last twelve months.

Fifty-one percent of MLH Low-Income Consumer Health Survey respondents reported they or someone in their household had been diagnosed with high cholesterol.

Two out of thirty-two Soup Kitchen Interview respondents indicated that they had high cholesterol.

The Mid-South has some of the highest rates of high cholesterol in the country. Thirty-nine percent of Tennessee adults, forty-two percent of Mississippi adults and forty percent of

Arkansas adults have been told by a doctor that they have high cholesterol. The national average for high cholesterol is thirty-eight percent *(Source: BRFSS 2011).*

Smoking – Smoking was a common behavioral health risk factor in the primary research studies and is more prevalent among lower-income populations in the MLH service area. Twenty-seven percent of NRC Consumer Health Report respondents reported that they or someone in their household smoked cigarettes every day and only two percent of respondents indicated that they or someone in their household had participated in a smoking cessation program in the last twelve months.

Thirty-six percent of MLH Low-Income Consumer Health Survey respondents reported that they or someone in their household smoked cigarettes every day.

Three of thirty-two Soup Kitchen Interview respondents indicated that they smoked cigarettes.

Smoking is more common in Tennessee, Mississippi and Arkansas than compared to national averages. About thirteen percent of adults in the United States report smoking cigarettes regularly compared to twenty-three percent in Tennessee, twenty-four percent in Mississippi and twenty-three percent in Arkansas *(Source: BRFSS 2011).*

Arthritis – Arthritis is one of the most prevalent health conditions in the MLH Service Area, and is more prevalent among lower-income populations according to MLH primary research. Twenty-one percent of NRC Consumer Health Report respondents and fifty-nine percent of MLH Low-Income Consumer Health Survey respondents reported they or someone in their household has arthritis. It appears arthritis disproportionately presents in low-income populations because of a disproportionate representation of the elderly in this income group.

The prevalence of arthritis is slightly higher in Arkansas and Mississippi compared to national averages. Thirty-one percent of adults in both Arkansas and Mississippi have been told by a doctor they have arthritis. Twenty-six percent of Tennessee adults have been told by a doctor they have arthritis which is the national average *(Source: BRFSS 2011).*

Mental Health – Mental health disorders are prevalent in the MLH service area. About one-fifth of NRC Consumer Health Report and over one-third of MLH Low-Income Consumer Health Survey respondents reported that they or someone in their household suffered from depression or anxiety. A major theme from the Soup Kitchen interviews was the pervasiveness of mental health disorders among the homeless or housing-insecure. Mental health disorders were reported or observed in nine of thirty-two Soup Kitchen interviewees.

Depression is more prevalent in the Mid-South compared to national averages. Twenty percent of adults in Tennessee, eighteen percent of adults in Mississippi and twenty-two percent of adults in Arkansas

have been told by a doctor that they have depression compared to the national average of eighteen percent *(Source: BRFSS 2012).*

Dental Care – Lack of access to dental care was a common theme in the primary research studies. However, lack of dental care was much more prevalent among low-income populations. The Soup Kitchen Interviews revealed a large need for dental care among the homeless and housing-insecure. Among respondents to the Soup Kitchen Interviews, seven of thirty-two reported or presented with the lack of dental care.

Even among the middle and upper income groups, only thirty-eight percent of NRC Consumer Health Report respondents reported that they or someone in their household had received a dental exam in the last twelve months compared to forty-five percent nationally. According to the MLH Low-Income Consumer Health Survey, of those that reported putting off healthcare over the last year, nearly half reported putting off dental care.

Lack of access to dental care appears to disproportionately affect the Mid-South. Nationally, almost seventy percent of adults have visited the dentist or dental clinic in the last year compared to only sixty-one percent in Tennessee, fifty-five percent in Mississippi and fifty-five percent in Arkansas *(Source: BRFSS 2012).*

Access to Primary and Specialty Care – Access to primary and specialty healthcare appears to be a problem for individuals living in the MLH service area, especially for those who are low-income and housing insecure. Seven percent of NRC Consumer Health Report respondents reported not having seen a doctor within the last two years.

Thirty-seven percent of MLH Low-Income Consumer Health Survey respondents reported putting off care due to lack of a regular doctor. Over one-fourth of MLH Low-Income Consumer Health Survey reported putting off care due to lack of transportation. Seventeen percent reported putting off care due to not being able to take time off of work. Sixteen percent reported putting off care due to inconvenient office hours and ten percent put off care because they could not get an appointment with their doctor.

The solution to access appears not to be as basic as recruiting more doctors. Tennessee, Mississippi and Arkansas have higher patient to physician ratios than the national average. According to the Robert Wood Johnson Foundation's County Health Rankings the Tennessee ratio is 1,409:1; the Mississippi ratio is 1,920:1; and the Arkansas ratio is 1,613:1 as compared to the National ratio of 1,067:1.

Access to Pediatric Care - Le Bonheur Children's Hospital, working in tandem with the UT Health Sciences Center Department of Pediatrics, has identified community needs among children ages 18 and younger specifically in the areas of asthma, developmental disabilities, autism and obesity. Chronic diseases linked to health disparities continue to be a challenge for our region, so bench-to-bedside research and clinical care will be focused on areas of most significant need. A disproportionate number of children in our community live in extreme poverty and/or are born to teen moms and/or moms that

had no prenatal care. As such, the infant mortality rate in our community is fifty percent higher than the national average.

Inability to Pay for Healthcare – One of the common themes in the NRC Consumer Health Report, MLH Low-Income Consumer Health Survey and the Soup Kitchen interviews was a general inability to pay for healthcare. According to NRC Consumer Health Report respondents, the top two reasons provided when asked "your household is uninsured because?" were cost (thirty-three percent) and unemployment (thirty percent) (multiple response options allowed, groups not mutually exclusive).

The most commonly reported reasons in the MLH Low-Income Consumer Health Survey for putting off care among lower-income MLH Service Area consumers was concern about spending (forty-four percent) and inability to pay for services (forty-two percent). Twelve percent of MLH Low-Income Consumer Health Survey respondents reported being uninsured.

Individuals living in Tennessee, Mississippi and Arkansas are more likely to be uninsured than the national average. Seventeen percent of adults living in Tennessee, twenty-one percent of adults living in Mississippi and twenty-one percent of adults living in Arkansas are uninsured compared to the national average of eleven percent *(Source: BRFSS 2012).*

Differences among Populations Surveyed

The low-income population in the MLH service area is generally less healthy with a higher prevalence of disease and is presumed to be older (prevalence of diseases/conditions that onset later in life). Lack of dental care disproportionately affects the low-income and homeless or housing insecure, and mental health disorders seem to disproportionately affect the homeless or housing insecure in the MLH service area population.

Contrasting Two Communities: 38109 (South Memphis) and 38138/38139 (Germantown) MLH serves a diverse patient population. Most notably there are differences between our suburban and urban service areas. To characterize the nature of this difference we investigated the difference between zip code 38109 in South Memphis and zip codes 38138 and 38139 (Germantown) in the first ring suburbs east of Memphis. The two communities are significantly different, in terms of many agreed-upon determinants of health, as shown below.

Report Area	Determinants of Health Comparison		
	Percent Aged 65+	Percent ≤ High School Degree	Percent Household Income ≤ $25k
South Memphis (38109)	11.5%	62.8%	44.0%
Germantown (38138, 38139)	11.2%	14.5%	6.5%
United States	12.9%	43.7%	23.8%

Approximately 62.8 percent of South Memphis (38109) residents report having less than or equal to a high school degree, compared to only 14.5 percent of Germantown residents. Moreover, almost half (44 percent) of South Memphis households earn $25,000 or less annually.

Source: Truven Health Analytics

Table 8

To capture the health needs of 38109 (referred to as South Memphis in this comparison) we fielded the postal-survey to households making less than $40,000. To capture the health needs of 38138/38139 (referred to as Germantown in this comparison) we fielded the NRC Consumer Health Report online-survey.

Primary research findings suggest that both communities—South Memphis and Germantown—each have specific and unique health needs. Based on primary research in these two geographies, we determined that while there are health needs in Germantown, South Memphis is burdened by more pervasive and prevalent health conditions.

Access to Care: Access to healthcare exists where services are available and there is an adequate supply of services. Here, insurance status is used to infer the availability of services, where it is assumed services are less available to those without insurance. According to the online survey, only 4.8 percent of Germantown residents report being without insurance, suggesting access to healthcare is not a relatively highly rated need in this community. However, among low-income South Memphis residents (29.3 percent uninsured), like most low-income communities, access to health services is considered a definite community health need.

Asthma: Among those households responding to the online survey, thirteen percent reported having at least one case of asthma. For Germantown households, this prevalence was slightly less (7.1 percent). But, among South Memphis households, one out of three households (33 percent) reported having at least one case of asthma. Compared to other conditions, asthma is not as highly rated of a health need for either community.

Chronic Disease and Precursors: Prevalence of cardiovascular disease, for both communities, is likely underreported (Remember: data is self-reported; findings are derived from community perceptions). The American Heart Association estimates that more than one in three persons has at least one type of cardiovascular disease (Circulation, 2012). Households in Germantown self-reported a cardiovascular disease prevalence of only 14.3 percent, whereas

South Memphis households reported a more nationally representative—but likely still underestimated—prevalence of 33.3 percent.

For both communities, evidence for their being underreported can be seen in the much higher prevalence of high blood pressure and high cholesterol, both of which are considered by the American Heart Association as types of cardiovascular disease. High blood pressure is prevalent among 57.1 percent of Germantown households; and high cholesterol among 45.2 percent. Prevalence is even higher among South Memphis households: 78.7 percent have high blood pressure and 48.5 percent have high cholesterol. That means, in this community, almost four out of five households are home to at least one person with high blood pressure and one out of two households is home to at least one person with high cholesterol. Therefore addressing cardiovascular disease is a need for both communities.

Smoking and obesity, two risk factors, seem to influence the high prevalence of cardiovascular disease in both communities, but probably for South Memphis more so than Germantown. Less than 10 percent of Germantown households report having at least one smoker living in the home, compared to 33.3 percent of South Memphis households. Exact differences between the two communities in terms of obesity prevalence are not known. Nonetheless, 19 percent obesity among Germantown households, or almost one of five homes, suggests a health need. Moreover, though obesity among South Memphis households was not specifically reported, 58.2 percent of these households reported that at least one household member had been told by a health professional to "lose weight." Therefore, findings suggest a need for addressing overweight/obesity in both communities.

Diabetes: Probably the biggest disparity between the two communities, at least in regards to these metrics, pertains to diabetes. For the South Memphis community, the prevalence of diabetes is 63.6 percent, and it is 14.3 percent for Germantown households. Both are significant, but the difference between the two is probably even more significant. Addressing diabetes is a definite health need for South Memphis.

Cancer: Cancer is the only disease where prevalence is higher among Germantown households (35.7 percent) than South Memphis households (12.5 percent). For the most part, this difference can be attributed to the very high prevalence of skin cancer (28.6 percent) in Germantown.

Contrasting Two Communities: 38109 and 38138, 38139

Report Area	Access	Asthma	Chronic Diseases & Precursors						Cancer		
	Uninsured	Asthma	Cardiovascular Disease	High Blood Pressure	High Cholesterol	Smoking	Obesity	Diabetes	Skin Cancer	Non-Skin Cancer	Cancer
Online											
38138, 38139	4.8%	7.1%	14.3%	57.1%	45.2%	9.5%	19.0%	14.3%	28.6%	7.1%	35.7%
MLH Market	18.2%	13.0%	8.3%	37.9%	30.1%	28.9%	19.0%	20.6%	5.4%	8.4%	13.9%
Postal											
38109	29.3%	33.3%	33.3%	78.7%	48.5%	33.3%	*N/A	63.6%	N/A	N/A	12.5%
MLH Market	32.4%	31.5%	35.0%	73.5%	51.5%	36.0%	*N/A	54.9%	N/A	N/A	18.0%
*59.2 percent of the MLH Market and 58.2 percent of 38109 respondents have been told by a health professional to "lose weight."											

Source: MLH CHNA Primary Research

Table 9

Summary of Secondary Research

MLH collected and analyzed secondary data from multiple sources including: The Robert Wood Johnson Foundation's Country Health Rankings, Healthy People 2020, CHNA.org, The Centers for Disease Prevention and Control (CDC), Behavioral Risk Factor Surveillance Survey (BRFSS), Medical Expenditure Panel Survey (MEPS), National Health and Nutrition Survey (NHANES), The National Cancer Institute's State Cancer Profiles, the Health Indicators Warehouse, and Agency for Healthcare Research and Quality (AHRQ). The data resources were queried for data related to the occurrence of disease, health behaviors and healthcare outcomes. For the most part, secondary research findings echoed primary research findings.

For comparison, given the similarity of distribution of population by race, we compared mortality rates to Wayne County, Michigan noting that for all leading causes of death, with the exception of heart disease and chronic lower respiratory disease, Shelby County had higher mortality rates (see Table 10). When comparing to the State of Tennessee as a whole, Shelby County had higher mortality rates for all causes except accidents and chronic lower respiratory disease.

Age adjusted mortality rate per 100,000 population

Report Area	Cause of Death						
	Heart Disease	Cerebrovascular Diseases	Accidents and Adverse Effects	Alzheimer's Disease	Chronic Lower Respiratory	Diabetes	Influenza and Pneumonia
Shelby	228.7	57.5	41.7	41.9	40.3	30.5	21.7
Wayne (MI)	277.9	43.7 (Stroke)	34.5	14.5	46.4	27.4	20.6
TN	225.5	51.4	51.2	38.2	54.6	26.5	22.2

Sources: http://health.state.tn.us/statistics/data.htm and http://www.michigan.gov/mdch/0,4612,7-132-2944_4669_34839---,00.html

Table 10

Key public health indicators reflect that undesirable conditions in Shelby County are above average in terms of disease incidence and prevalence and their long-term effects. This is evidenced in terms of chronic disease and its precursors, cancer, infant mortality, various social determinants of health:

Chronic Diseases and Cancer: Far too often, communities within the Methodist Healthcare service area exceed state and national incidence, prevalence and mortality rates, in terms of various chronic diseases. This is true for both heart disease and stroke, where all geographic areas were underperforming 2020 goals (see Table 11). At least in part, this can be explained by the high prevalence of certain precursors to chronic disease, such as smoking, excessive drinking, and obesity (see Table 12).

Key Public Health Indicators

Report Area	Heart Disease		Stroke	
	Annual Deaths	Age-Adjusted *Death Rate	Annual Deaths	Age-Adjusted *Death Rate
DeSoto	221	193.22	45	38.38
Fayette	70	181.96	19	51.99
Shelby	1,409	177.6	467	59.43
MS	4,741	160.86	1,544	53.27
TN	11,329	175.58	3,315	52.47
USA	432,552	134.65	133,107	41.78
Healthy People 2020 Target		≤100.8		≤33.8
*Rate per 100,000				

Source: *http://healthindicators.gov/Indicators/*

Table 11

Health Behaviors by County

Report Area	Premature Death[1]	Poor/Fair Health[2]	Poor Mental Health Days[3]	Adult Smoking	Adult Obesity	Excessive Drinking[4]	Chamydia[5]	Teen Birth Rate[6]	Primary Care Physicians[7]
DeSoto	7,607	16%	3.5	24%	33%	11%	465	43	3,8521:1
Fayette	83,112	16%	3	24%	36%	8%	312	56	5,494:1
Shelby	9,835	15%	2.7	19%	34%	14%	1,076	62	1,274:1
MS	10,214	22%	4.1	24%	36%	11%	722	62	1,920:1
TN	8,790	19%	3.3	23%	32%	10%	446	50	1,409:1
*Rate per 100,000									

[1] Premature Death = Years of potential life lost before age 75 per 100,000
[2] Poor or Fair Health = Percent of adults reporting poor or fair health
[3] Poor Mental Health Days = Average number of poor mental health days in last 30 days
[4] Excessive Drinking = Binge or heavy drinking
[5] Chlamydia rate per 100,000
[6] Per 1,00 females ages 15-19
[7] Ratio of population to PCPs

Source: http://www.countyhealthrankings.org/app/home

Table 12

Additionally, this is true for various cancers, as shown via Tables 13 and 14X. For instance, Shelby County has higher rates than Tennessee for all cancers and specifically colorectal, breast, and cervical. However, just as—if not even more—significant is the racial disparities among these diseases. The secondary research showed that African Americans tend to have higher occurrences of disease, compared to Caucasians. This was a common theme throughout secondary findings. For example, the

kidney diseases death rate for African Americans in Shelby County was almost three times that of Caucasians in Shelby County (Table 15).

Cancer Mortality by Race and Gender

Demographics	Age-Adjusted Death Rates (per 100,000)							
	All Cancers		Colorectal Cancer		Lung Cancer		Breast Cancer	
	Shelby	TN	Shelby	TN	Shelby	TN	Shelby	TN
Total	210.5	205	22.2	19	56.1	65.3	16.9	13
Race								
White	180	201	17.6	18	51.2	65.6	11.1	12
Black	255.6	246	28.9	28	63	28	25.8	21
Other	94.4	103	8.5	8.5	13.5	65.7	1.3	3.6
Gender								
Male	276.1	270	27.2	23	81.9	91.7		
Female	173.7	163	19.1	16	40.4	47		
Race & Gender								
White, Male	233	236	20.5	22	69.5	90.9		
Black, Male	347.1	339	38	36	101.6	103		
Other, Male	135.2	121	7.4	5.7	16.6	28		
White, Female	150.6	159	15.9	15	40.6	47.9		
Black, Female	205	193	23.6	22	39.7	42.5		
Other, Female	68.1	94.2	7.8	10	10.5	28.7		

Source: http://statecancerprofiles.cancer.gov/cgi-bin/quickprofiles/profile.pl?47&047

Table 13

Given the prevalence of cancer in Shelby County, we analyzed differences between mortality rates for types of cancer and race. Comparing all-cause cancer mortality rates to colorectal, lung and breast cancer in Shelby County, we observed African Americans die disproportionately from all three cancers when compared to Caucasians (see Table 13). [1] Breast cancer screening and cervical cancer incidence rates suggest significant opportunities for improvement compared to Health People 2020 goals (see Table 14).

Breast and Cervical Cancer Incidence per 100,000

Report Area	Breast Cancer		Breast Cancer Screening (Mammogram)		Cervical Cancer	
	Annual Incidence	Annual Incidence Rate	Number Medicare Regularly Screened	Percent Medicare Regularly Screened	Annual Incidence	Annual Incidence Rate
Desoto	161	107.9	699	58.4%	13	9
Fayette	35	94.3	177	57.7%	N/A	N/A
Shelby	1,172	127.6	3,826	58.4%	90	9.8
Mississippi	3,320	113.6	14,126	56.5%	283	9.7
Tennessee	7,366	119.6	30,284	62.2%	536	8.7
United States	367,783	12.2	2,660,626	63.3%	24,117	8
Healthy People 2020						≤7.1

Source: http://statecancerprofiles.cancer.gov/cgi-bin/quickprofiles/profile.pl?47&047

Table 14

Kidney Diseases Mortality by Race

Report Area	Kidney Diseases Deaths per 100,000 (2008-10)		
	All Races	White	Black
Desoto	8.2	10.8	N/A
Fayette*	13.3	N/A	N/A
Shelby	13.3	9.3	24.4
Mississippi	24.4	18.3	40.0
Tennessee	15.0	12.9	27.8
United States	16.1	13.8	29.7
*Data Range = 2006-2010			

Source: *http://healthindicators.gov/Indicators/*

Table 15

Sickle Cell: Although the exact number of people living with sickle cell disease (SCD) in the United States is currently unknown, the CDC estimates that SCD affects about 90,000 to 100,000 Americans. It is particularly common among African Americans. According to the CDC, SCD occurs in 1 out of every 500 African American births; while 1 in 12 African Americans has the sickle cell trait (SCT). Although carriers of the SCT may not exhibit symptoms of the disease, if two individuals with the SCT have a child, there is a 25% chance that the child will have SCD. While exact statistics remain unknown, based on CDC estimates of SDC and SCT prevalence and population demographic data, the MLH service area is home to approximately 1,100 individuals with SCD and almost 45,000 carriers of the SCT. The MLH Sickle Cell Center was created to serve the needs of this unique population.

Pediatric Asthma: Pediatric asthma is a critical problem in the MLH Service Area, with high levels of morbidity and mortality, as well as high health care costs. Methodist Le Bonheur Children's Hospital receives more than 3,500 asthma-related visits each year, and it is Le Bonheur's most common diagnosis. Moreover, annual pediatric asthma hospitalizations in Shelby County cost Tennessee's Medicaid-funded TennCare program $2.1 million in avoidable hospitalizations and an additional $2.6 million for Emergency Department visits, for a total of $4.7 million in TennCare costs *(Source: Tennessee Hospital Discharge Data Set, 2010).*

Minority and low-income children are especially vulnerable to asthma due to associated environmental, economic, and psycho-social factors (Tables 16a and 16b). MLH serves a significant number of both populations: racial minorities make up approximately 57 percent of its primary service area and nearly one out of three Shelby County children live below the poverty level. Accordingly, pediatric asthma has been identified as a high-priority need.

Pediatric and Adult Asthma Prevalence

Report Area, Race	Pediatric Asthma	
	Child Current Asthma Prevalence	Child Lifetime Asthma Prevalence
Tennessee	6.4%	10.5%
White	5.1%	8.7%
Black	8.7%	18.3%
Mississippi	8.6%	13.2%
White	5.3%	9.4%
Black	12.1%	17.6%
United States	8.4%	12.6%

Report Area, Income	Adult Asthma	
	Current Asthma Prevalence	Lifetime Asthma Prevalence
Tennessee		
<$15,000	11.7%	16.2%
$15 -$24,999	10.3%	14.3%
$25-$49,999	5.7%	9.2%
$50-$74,999	5.3%	8.2%
$75,000 +	3.5%	6.9%
Mississippi		
<$15,000	10.6%	16.7%
$15 -$24,999	11.5%	15.7%
$25-$49,999	5.7%	10.0%
$50-$74,999	5.4%	9.0%
$75,000 +	3.3%	8.1%

Source: http://apps.nccd.cdc.gov/brfss/page.asp?cat=XX&yr=2010&state=All#XX

Tables 16a and 16b

Infant Mortality: Infant mortality was identified as a significant health need by the secondary research. In the case of infant mortality, all geographic areas of analysis, with the exception of Fayette County, were underperforming Healthy People 2020 goals (see Table 17). Moreover, it should be noted that Shelby County's infant mortality rate is more than twice that of the Healthy People 2020 goal, indicating a definite community health need.

As noted by The Urban Child Institute, the health and well-being of our children determines the future of our community. [iii] By this standard, Shelby County's future is somewhat dim. However, since 2008, the infant mortality rate declined between 2009 and 2011 from 13 to 9.6 infant deaths per 1,000 live births. While an encouraging trend, the health needs of this most vulnerable population continue to be paramount. The Memphis child poverty rate (39 percent) is nearly double the national rate (21.9 percent). Over half of Shelby County children face economic hardship where 30 percent of children in Shelby County live in poverty. Of this 30 percent, half of the children are in extreme poverty.

Infant Mortality

Report Area	Infant Mortality		Low Birth Weight	
	Total Infant Deaths	Infant *Death Rate	Total Low Birth Weight	Percent Low Birth Weight
DeSoto	108	7.31	1,184	8.22%
Fayette	18	5.44	313	9.83%
Shelby	1,340	13.02	11,344	11.08%
MS	3,190	10.36	36,160	11.80%
TN	4,946	8.54	53,649	9.35%
USA	393,074	6.71	2,359,843	8.10%
Healthy People 2020		≤6.0		
*Rate per 1,000 births				
**Rate per 100,000				

Source: *http://healthindicators.gov/Indicators/*

Table 17

Health Determinants: According to the World Health Organization, many factors combine to affect individual and community health. To a large extent, circumstantial and environmental factors, like income- and education-levels, combine to influence health in a very significant way. We know from the Urban Child Institute that children are better off when their parents are educated. As a leading determinant of health, the educational system plays a critical role in the long-term health of the community. In Fayette County, though, more than half of the population has a high school degree or less (see Table 6). Likewise, higher income is linked to better health. However, 56 percent of Shelby County households earn $50,000 or less annually (see Table 7). Factors such as these will certainly influence individual and community health.

According to the CDC, more than ten percent of people in the United States aged 20 years or older have chronic kidney disease; and prevalence is higher among those with diabetes (35 percent) and hypertension (20 percent). According to our primary and secondary research, the MLH service area is characterized by a relatively high prevalence of diabetes and hypertension, the two most significant co-morbid conditions of kidney disease. Moreover, the death rate for kidney disease is higher among African Americans in Shelby County (24.4/100,000) as compared to Shelby County as a whole (13.3/100,000) suggesting that access to care for and treatment of kidney disease disproportionately affects the African American population in our Service Area.

Prioritized Community Health Needs

The summary of primary and secondary research details the analysis of the data used to determine the highest priority community health needs in the MLH service area. The Strategic Planning and Marketing division formed a subcommittee of the MLH CHNA Committee to prepare the analytics and proposed the priority ranking of the needs for approval. The needs were ranked as follows:

1. Chronic Disease and the Precursors to Chronic Disease
    a. Obesity
    b. High Blood Pressure
    c. High Cholesterol
    d. Cardiovascular Disease
    e. Diabetes
    f. Smoking / Use of tobacco products
    g. Kidney Disease
    h. Sickle cell
    i. Arthritis
2. Cancer Care
3. Infant Mortality / Teen Pregnancy
4. Childhood Asthma
5. End of Life
6. Mental Health
7. Dental Care
8. Access to Care
9. Poverty / Unemployment
10. Education
11. Crime

The list of community health needs was presented to the MLH CHNA Committee. The committee used an organic process of listening to subject matter experts to derive the prioritization of needs in addition to reviewing the findings from the qualitative and quantitative methods. The community health needs with the greatest risk of mortality to persons within the population were prioritized at the top of the list.

The pre-determinants of health – poverty/unemployment, education and crime – are all drivers impacting access to care so they all held equal weight in the list of priorities. MLH is well positioned to address access to care, yet determined poverty/unemployment, education and crime were better left to local organizations structured specifically to address those needs, therefore they were ranked at the end of the list.

Implementation Strategy

The MLH Implementation Strategy draws on decades of experience and knowledge gained from a disciplined and proactive approach to strategic planning. MLH, centered in Memphis, Tennessee, serves a diverse socio-economic population across a large geographic area spanning West Tennessee, North Mississippi and East Arkansas. As a tri-state provider, MLH must continuously monitor changing trends in health status as well as demographic, epidemiologic, behavioral, and economic characteristics of the population served to remain an informed and reliable community contributor. MLH is committed to meeting the healthcare needs of the varied communities it serves by maintaining/ expanding/ transforming existing services, developing new programs and aligning with other regional and national partners in health.

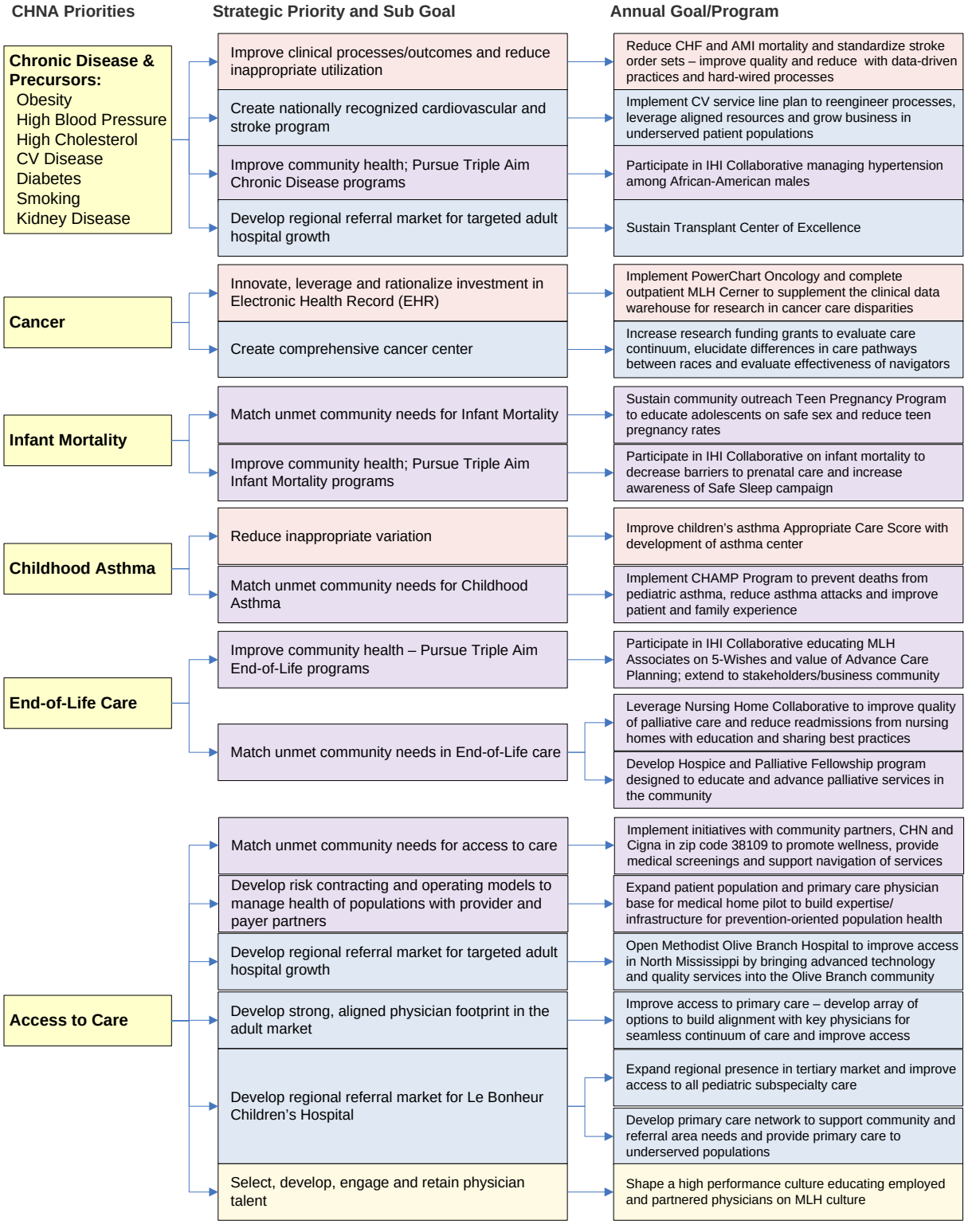
The process of envisioning the MLH long-term strategy is driven by senior management and the MLH Board of Directors and facilitated by Corporate Strategic Planning. Our annual planning process is cyclical whereby the environment is continually scanned for changes that may significantly impact organizational success or failure and our ability to meet the needs of our community. The planning process is rooted in the mission, vision and values of the organization.

The established longer-term strategic plan is validated annually then the process transitions from long-term planning to fiscal year execution. Our Deployment Map documents the execution strategy connecting strategic priorities to annual goals, projects and executive champions. The findings from the CHNA were incorporated into the planning process and will be key inputs in the environmental assessment phase of the planning process going forward. See attached excerpts from the 2013 System Deployment Map outlining strategic priorities and projects aligned with the prioritized Community Health Needs (see Figure 4).

MLH's mission and identity compels it to support the health of all people in the community. The commitment is grounded in the Methodist Church's social principle of *Nurturing Community:* "The community provides the potential for nurturing human beings into the fullness of their humanity. We believe we have a responsibility to innovate, sponsor, and evaluate new forms of community that will encourage development of the fullest potential in individuals. Primary for us is the gospel understanding that all persons are important—because they are human beings created by God and loved through and by Jesus Christ and not because they have merited significance. We therefore support social climates in which human communities are maintained and strengthened for the sake of all persons and their growth."

The Nurturing Community principle is found throughout the MLH culture, services and outreach programs. The following provides more description for existing, well established programs as well as highlights of projects from the 2013 Deployment Map that target the prioritized community health needs identified by our assessment.

Community Health Needs Strategic Implementation Plan



Source: MLH Strategic Planning and Marketing

Figure 4

Strategic Implementation Plan
Methodist Healthcare-Memphis Hospitals

Chronic Disease

Shelby County is one of the least healthy communities in the country, yet, one with significant health assets, providers and academic partners all well aligned with Methodist's mission and vision. MLH views the tremendous needs in the community as opportunities. As a faith-based healthcare provider committed to meet our community's health care needs, we have an obligation to explore building smart, integrated partnerships of aligned community assets.

While we have numerous ongoing services and programs targeting chronic disease and the precursors to such conditions, such as obesity, smoking and high blood pressure, the following highlights some of most recent strategic priorities in quality and collaboration for annual execution over the next year.

Cardiac Institute The Cardiovascular Institute at Methodist University Hospital partners with Columbia University Medical Center and the UTHSC to offer the latest in treatment for heart failure, arrhythmia, congenital heart disease and other heart conditions. In 2009, MHMH partnered with Columbia University Medical Center (CUMC) to improve the quality of heart care available in the Mid-South. The institute supports the Cardiovascular Resource Center at Methodist University Hospital which promotes cardiac and vascular care in an effort to help increase awareness. The Center helps enhance quality of life by providing limited financial resources and a supportive environment for cardiac and vascular patients, caregivers as well as family members.

Reduce Inappropriate Variation / Improve Quality We believe in order maintain our commitment to quality excellence and thrive under health care reform, MLH must advance the discipline of managing clinical data and improving performance by applying thought processes considered leading practice by the industry. We must educate all of our Associates to understand how to employ data-driven practices in their everyday roles and to "hard wire" processes that reduce variation in error. We call this creating a "learning organization." MLH has built its delivery systems using clinical management best practices, and has adapted and implemented evidence-based clinical practice guidelines when available. It is our mission to reduce mortality rates particularly in Congestive Heart Failure (CHF) and Acute Myocardial Infarction (AMI), improve care pathways including stroke and standardize quality improvements at all MHMH locations throughout the community.

Cardiovascular Strategic Planning In March 2013, MHMH engaged a national consulting leader in cardiovascular (CV) service line planning, to assist us in the development of a system-wide strategic plan for CV services. The strategic planning process created a forum for organizing and

aligning the interests of all stakeholders, including hospitals, physicians, patients and families. The planning process examined our current CV services and evaluated opportunities to grow business in the underserved patient populations with heart failure and peripheral vascular disease. The implementation plan is underway to reengineer processes and leverage aligned resources. Existing MHMH resources include CV programs at all of our acute care facilities in Memphis, a partnership with Columbia Heartsource[SM] which provides clinical and quality guidance, two valve clinics and a transcatheter aortic valve replacement (TAVR) program at Methodist University Hospital in partnership with Sutherland Cardiology and UTHSC, JACHO accreditation in Stroke and AMI and Chest Pain Center Accreditation at each of our adult acute facilities in Memphis and multiple outreach clinics in Tennessee, Mississippi and Arkansas.

Shelby County Triple Aim Initiative – Healthy Shelby (Chronic Disease) as noted previously, is a local collaborative supported by IHI to tackle three of the most critical health problems, one of which is chronic disease. The Chronic Disease Team has chosen to focus on a target population of African-American males with undiagnosed/untreated hypertension (approximately 1,200 men in 400 churches). The hypothesis is that many African-American men with hypertension are asymptomatic and have no regular primary care provider relationship. Engagement within the context of a trusted relationship (fellow congregants) will increase the likelihood men with undiagnosed/untreated hypertension will seek medical care within one month after referral. The team is focusing on recuing the incidence of untreated hypertension and improving medication adherence among African-American makes. The initiative includes a church-based project and a neighborhood based project.

Diabetes MHMH offers a variety of educational classes led by registered nurses and dietitians which are designed to teach patients how to manage their diabetes. Our diabetes education coordinators are also available for one-on-one counseling for insulin administration and diet instruction. There is a plan to place a diabetes center located on the campus of Methodist South.

Sickle Cell We have one of the largest populations of sickle cell patients in the country. For these patients, daily life is often interrupted by unpredictable bouts of pain that threaten their family life, career, education and social life. The Methodist Healthcare Comprehensive Sickle Cell Center provides a preventive outpatient clinic and Memphis' first dedicated emergency infusion unit. The center is focused on delivering treatment advance through on-site research. We are committed to providing continuity of care that will help enhance the quality of life for sickle cell disease patients across the Mid-South.

Arthritis In 2013, MLH aligned with The Arthritis Group as part of the physician alignment strategy to address community health needs. The rheumatology group has been in existence since 1970 in the Memphis area, and specializes in several areas of arthritis: osteoarthritis, rheumatoid arthritis, lupus and osteoporosis. The practice has two locations, one centrally

located in the Memphis Medical Center and one in the eastern part of Shelby County making services easily accessible to patients in the tri-state area.

Obesity / Bariatric Program MHMH has an established bariatric program with a dedicated physician to address the surgical weight loss needs of our obese population. The program received the CIGNA distinction in bariatric surgery and has been provisionally accredited by the American Society for Metabolic and Bariatric Surgery (ASMBS) – full accreditation is pending a sight visit in fourth quarter 2013. While surgical weight loss is not the solution for all cases of obesity, the provision of these procedures is important to our patient population and addresses a specific need.

Smoking MHMH strives to educate the public, patients and Associates on health related issues and when possible, offer classes, trainings and other forms of assistance to members of our community. The most recent initiative targeting smoking and the use of tobacco products is the addition of quality measures for our aligned primary care physicians in 2013. Our physicians will soon be monitored on their adherence to guidelines on counseling and educating patients in smoking cessation.

Transplant

Nationally recognized for its success with kidney, liver, kidney-pancreas and pancreas transplants, the Methodist University Hospital Transplant Institute has been a leader in the field for more than forty years. The program offers hope to patients with conditions such as kidney failure and end-stage liver diseases such as cirrhosis, Hepatitis C and diabetes. The institute includes the Transplant Resource Center which supports the educational, emotional, spiritual and financial needs of transplant recipients, organ donors and their families.

Partnering with the University of Tennessee, the program is dedicated to improving the quality of life and the life expectancy for its organ transplant patients through research breakthroughs, excellence in surgical techniques and meticulous post-operative care. Based on volume the institute ranks in the 90th percentile for liver programs and almost at the 75th percentile for kidney programs. Given the prevalence of high blood pressure in our community, and the impact of elevated blood pressure on kidneys, this program is a key part of the care continuum.

Cancer

MLH, The West Clinic and the UTHSC entered into a partnership in 2011 to transform cancer care in the Mid-South. The West Clinic is the region's premier cancer practice and is a nationally-recognized leader

in cancer research. The West Clinic currently has over thirty physicians in multidisciplinary specialties and multiple locations in Tennessee, Mississippi and Arkansas providing services to include medical oncology/hematology, gynecologic oncology, blood cell transplants, diagnostic and interventional radiology, metabolic bone disease/endocrinology, clinical psychology, pain and palliative care, radiation oncology, comprehensive breast center, nutritional counseling, ACORN research and the WINGS Cancer Foundation. As part of that partnership, UTHSC moved its Oncology Fellowship Program to The West Clinic and was provided funding to enhance cancer research, care programs and innovation. In 2013, the partnership was named the West Cancer Center. Together, the three organizations are advancing efforts to provide leading-edge treatment, extensive clinical trials and cutting-edge research in the fight against cancer.

Breast Cancer Disparity Grant Funding One of the most recent initiatives designed to leverage the strengths of the partnership is a research collaborative targeting the high disparities in breast cancer mortality for African-American women in Memphis. Disparities in cancer care result from gaps along the entire continuum of care; however, due to multiple organizations and disparate data sources evaluating the entire continuum for a large population is rarely achieved. In January 2013, Methodist Healthcare Foundation was awarded a planning grant from Avon Foundation to establish a clinical data warehouse to enable the evaluation of women with breast cancer from pre-screening through treatment. The next phase of the research includes elucidating the differences in care pathways between races and evaluating the effectiveness of patient navigation in order to reduce/eliminate disparities in care of breast cancer in our community.

Infant Mortality and Teen Pregnancy

As one of the largest providers of maternity and infant care in the service area, MHMH is a key player in the fight against infant mortality in the Memphis market and surrounding counties. MHMH offers a variety of maternity services with labor and delivery services, board certified neonatologists, Level III NICU beds and prenatal education. MHMH leads and participates in numerous efforts created to reduce infant mortality – three of the most notable are outlined here in more detail.

Le Bonheur Children's Fetal Center It is the only center of its kind in the area that offers a complete range of services from prenatal diagnosis through fetal interventions. As one of less than thirty centers in the country focused entirely on babies diagnosed in utero with a congenital anomaly, the Fetal Center has helped more than six hundred families since opening in 2009. The medical team includes board certified maternal fetal medicine specialists and pediatric physicians, counselors, parent mentors, lactation consultants and a program director that help navigate delivery planning and care for the baby care after birth.

The Le Bonheur Be Proud! Be Responsible! Memphis! Teen pregnancy program The program is an outreach initiative which aims to prevent teen pregnancy and is led by Le Bonheur Community Health and Well-Being (LBCHWB), a division of Le Bonheur Children's Hospital. The division's mission is "to promote the physical, mental, emotional and social well-being of children and families by collaborating with the community to provide a coordinated system of family-centered prevention, education, early intervention, support services and advocacy that extends beyond the hospital walls."

The interactive pregnancy program is designed to educate adolescents about safe sex practices and help them develop a sense of pride, self-confidence and self-respect. The program collaborates with partners such as Shelby County Schools, City of Memphis Parks services, Girls Inc., Memphis Teen Vision and other Le Bonheur programs. Classes empower youth to build and maintain healthy relationships throughout their entire lives. The program served over three thousand kids in targeted zip codes across Memphis, Tennessee during its 2012-2013 campaign. These geographic areas include the highest rates of adolescent pregnancy, sexually transmitted diseases and infant mortality in the City of Memphis, Shelby County and the State of Tennessee. There was a 6 percent reduction in teen pregnancy in Memphis and Shelby County in 2011. The percentage decrease has tripled to 26 percent at present.

Shelby County Triple Aim Initiative – Health Shelby (Infant Mortality) Health Shelby is a collaborative of hospitals, health care providers, social service providers and local government leaders working with the Institute for Health Improvement (IHI), to address the county's most critical health problems: Infant Mortality, End-of-Life Care and Chronic Disease. MLH joins the Regional Medical Center, Baptist Memorial Healthcare and Saint Francis Hospital as health care leaders in this collaborative housed at the Healthy Memphis Common Table (the regional health improvement collaborative significantly supported by the Robert Wood Johnson Foundation). Two-year funding was secured to launch these projects for better population health, improved patients' experience of care, and lower healthcare costs. The infant mortality initiatives are targeting the high rates of infant mortality in Shelby County. The two areas of focus are to decrease the barriers to prenatal care, specifically obtaining presumptive eligibility and TennCare coverage and to increase awareness of Tennessee Department of Health's Safe Sleep campaign by enhancing social media and targeting the most vulnerable populations.

Childhood Asthma

Chronic disease linked to health disparities will continue to burden our region without sustained research and improved quality of care. We are both called and have opportunity to build our research

enterprise. We hope to improve how we deliver clinical care by focusing our applied research on issues confronting children – using a clear bench-to-bedside-to-community focus.

Asthma Appropriate Care Score / Improve Quality To meet the needs of our community's children, we must develop relationship-centered, innovative clinical care models. We will differentiate our pediatric services by improving quality and efficiencies for both inpatient and outpatient services. Le Bonheur Children's Hospital plans to develop a center of excellence in asthma to complement the research efforts in this area with a focus on developing a departmental quality improvement program to improve outcomes, reduce costs and develop efficiencies. The center of excellence will work in tandem with the Le Bonheur CHAMP program (a program for Children with High-Risk Asthma not to be confused with CHAMP – the Community Health Asset Mapping Partnership discussed previously).

CHAMP Program The LBCHWB, the UTHSC Department of Pediatrics and other community partners, received a CMS Innovation Grant to implement a comprehensive program to "close the loop" in the current continuum of care for pediatric asthma patients in Memphis and Shelby County. The CHAMP Program targets high-risk pediatric asthma patients, ages two to eighteen served by Le Bonheur. The program goals are to: prevent deaths from pediatric asthma; reduce emergency department visits and avoidable hospitalizations; reduce asthma attacks; lower overall health care costs; and improve patient and family experience with the health care system. Grant funds will be used for three years to address the program goals through three system and service delivery changes: (1) create a pediatric asthma registry to enhance access to data and information for disease management; (2) add health care coordinators to improve patient care, follow-up, education for patients and caregivers and coordinated access to community services; and (3) establish an asthma collaborative which can be a vehicle for workforce development across systems, promote information sharing, identify needed service and system improvements, and advocate for policy or system change. Agencies committed to participating in this Collaborative include the local health department, school systems, housing departments, federally funded health clinics, primary care provider and others.

End-of-Life Care

We have made advances in medical care and coordination of care, yet there are still unaddressed needs and unnecessary suffering at the end of life for many. Current strategies address the lack of awareness and understanding of end-of-life options through general and specific education models for patients, physicians, providers, patients and families.

Shelby County Triple Aim Initiative – Healthy Shelby (End-of-Life Care) Under the Healthy Shelby initiative, MLH is co-leading a community effort to engage faith groups, physician groups and

community organizations in educating the community about the need and value of Advance Care Planning. To date, over twenty thousand employees across Shelby County have been educated on end-of-life planning and provided with the Five Wishes Planning tool. An additional five thousand Five Wishes documents have been distributed throughout the community via churches, colleges, businesses and physician practices in an effort to raise awareness and help facilitate conversations or document a patient's wishes before well before a serious illness strikes.

Nursing Home Collaborative MLH established a Nursing Home Collaborative in 2012 between the health system and local nursing homes to decrease readmissions from nursing homes, share best practices and improve quality of palliative care provided within the nursing home setting. The success of the collaborative attracted Baptist Memorial Healthcare to join the group in 2013 as a co-host for the meetings; thus forming a true community-based approach with the two largest health systems in the service area participating with over thirty local nursing homes. Quarterly meetings focus on sharing best practices which are targeted at establishing improved, consistent palliative care across the community and reporting quality measures.

Residential Hospice We focus on the social, emotional and spiritual needs of the patient and family. MLH has a well established hospice program that provides care in the home, in a nursing home, at an assisted living facility or in the MLH Hospice Residence. The Hospice Residence expanded to twenty-five beds in June 2013 offering residential, inpatient and respite care. We also have a bereavement outreach program, Camp Bravehearts, for the greater Memphis area which achieved the highest participation since inception in 2013.

The goal to formalize the Hospice and Palliative Fellowship was achieved in January 2013 when the program was approved for two adult and two pediatric fellows by the Accreditation Council for Graduate Medical Education (ACGME). The new program is one of five in the country educating pediatric palliative fellows. To further palliative services in the community, Le Bonheur Children's Hospital developed, in conjunction with St. Jude Children's Research Hospital, the Quality of Life for All Kids (QoLA Kids) palliative program for seriously ill children. Hospice staff, both in the home and in the hospice residence, provides interdisciplinary care to children throughout the illness trajectory and concurrent therapies.

Mental Health

At MLH, we want to help reduce the stigma attached to mental health problems by providing information that might prevent major depression or anxiety in someone's life. We have developed as part of the Dennis H. Jones Living Well Network a virtual front porch where patients can connect with someone, learn about depression and anxiety and get in touch with resources and tools to help with life's journey. Behavioral health assessments are available in all adult hospital emergency departments,

and behavioral health consultation/liaison services are available for all adult hospital inpatient units. In addition, Methodist University Hospital has a dedicated psychiatric inpatient unit that works in partnership with other ambulatory and inpatient services in the community. These behavioral health services are intended to navigate patients to the appropriate level of care. All services are supported by 24/7 on-call psychiatrists. Moreover, Alliance Health Services has access for referral to a full continuum of care throughout the community.

Dental Care

MHMH does not have extensive dental care programs, yet there are programs in place to connect patients with more comprehensive dental care providers such as our Wellness without Walls events and other health fairs. One closely aligned partner with substantial dental programs targeting the underserved community is Christ Community Health Services. Christ Community has three dental centers strategically located in the areas with the most need. They recognize poor dental health not only affects your teeth, but can increase your risk for disease, heart attack, stroke and even preterm pregnancy.

In addition to navigating patients to dental services, the Le Bonheur East Surgery Center also has a joint partnership with local oral surgeons and dentists that provide ambulatory services at the surgery center and Le Bonheur Children's Hospital to pediatric patients with extensive dental needs. We supplement these services with educational materials to promote awareness of the importance of dental care.

Access to Care

The MLH mission is to provide high quality, cost-effective patient- and family-centered health care to all sectors of the greater Memphis service area. As part of its mission, MLH has strategically placed and maintained hospitals and ambulatory facilities in Fayette County, DeSoto County and all quadrants of Shelby County. Its geographical distribution makes MLH the area provider with the largest number of entry points and the most socio-economically diverse patient population.

While MLH has expanded into new areas in need, we know the most vulnerable populations reside in the north, central and south quadrants of Shelby County. MHMH has remained committed to the inner city and mission markets even as competitors and other healthcare resources followed the population shift to the east. Our flagship hospital, Methodist University Hospital, and our pediatric hospital, Le Bonheur Children's Hospital, are centrally located in the downtown Memphis Medical Center making high-end tertiary services easily accessible to patients and families in the tri-state area. Methodist North Hospital and Methodist South Hospital are located in the heart of their respective quadrants maintaining

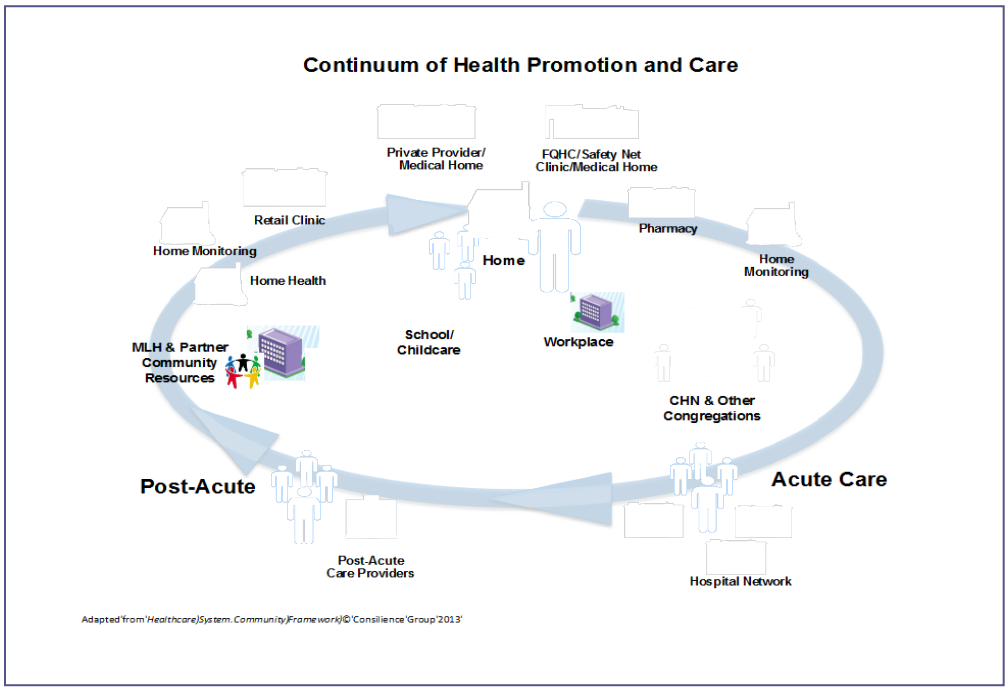
acute care services in the communities in which our patients live. In keeping with the mission, access to healthcare services is not restricted by existing health status, employment, income, geography or culture.

Congregation Health Network (CHN) In order to improve the community's health, we will need to ensure access to health care and preventive services. We must partner with other health care providers, especially our closely aligned faith-based providers, the Church Health Center and Christ Community Health Services as well as ACOs, and other community partners, to create an efficient network of services with multiple points of patient access and optimal navigation. The Congregational Health Network (CHN) is a covenant relationship between MLH hospitals, Mid-South congregations and community health organizations. The CHN provides a network of nearly five hundred congregations and faith communities that are partnering with us to share the ministry of caring for our patients. The goal of this program is to build stronger relationships with local faith communities in order to improve the patient journey through the MLH system and more broadly to build healthier communities. CHN is the infrastructure supporting our faith-based outreach projects including our work in zip code 38109.

Community Partnership in 38109 MHMH can build on its identity, assets and momentum to deliver breakthrough healthcare innovation for urban population health. With grant funding from Cigna, MHMH is testing a *geographic* population health model in 38109, one of our largest zip codes with significant health disparities and high levels of uninsured, as a microcosm of the MLH vision for service delivery continuums. The MLH vision is to build an infrastructure, including culture, integrated data systems, community resource database, mechanisms for collaboration, supportive public policy and sustainable funding which will support a seamless patient-and family-centered service delivery continuum (see Figure 13).

In 2013, the system used grant funds to pilot a "Wellness without Walls" concept with multiple events throughout the 38109 community to promote wellness, provide medical screenings and support navigation of health services. The events were led by MLH and held in conjunction with community volunteers, local congregational leaders, Memphis Area Legal Services, United Way of the Mid-South, G.W. Carver High School alumni and multiple other health related organizations including Walgreen's, UT College of Pharmacy, Shelby County Health Department, Health Spring (Medicare Advantage payer), TennDer Care (information on immunizations and well-child check-ups), Just Care Family Network (information on Mental Health) and Firestone Dental Group.

Population Health Model



Source: MLH Planning and Marketing, Consilience Group

Figure 13

Population Health through Medical Homes / ACOs Health Choice, a joint venture with MLH and Metrocare Physicians, is uniquely structured in this community to drive alignment models between the hospital and key physicians. Health Choice has developed a Medical Home model (MACH1) and is in the process of developing an Accountable Care Organization (ACO) pilot project with Cigna Healthcare, the area's largest commercial payer, to enable us to learn and to build expertise and infrastructure as we transition care from traditional models to prevention-oriented population health. The new care models have a patient-centered approach establishing care teams to coordinate care, engaging patients in their health and providing more integrated clinical and utilization data for providers.

Methodist Olive Branch Hospital Our DeSoto facility was opened in August 2013 in response to rapid population growth and increasing community need. The new hospital will significantly improve access to inpatient care and emergency care in North Mississippi. It reduces drive times and travel expense for healthcare services, improves access, promotes wellness in the community, attracts a full continuum of health care providers and physician specialists to the service area and improves the health of patients by bringing advanced technology and quality services into the community.

Physician Alignment Physician alignment has been a strategic priority for the last several years and will continue to be an access to care strategy. To better align with physicians, we developed a continuum of options allowing physicians to strategically engage with us in more effective ways. Our array of strategies and options are designed to build alignment with key physicians for a seamless continuum of care for patients and families as we react to structural changes in the health care industry and improve access.

Le Bonheur Referral Market There is a great burden of pediatric chronic disease in our region related to health disparities. Many underserved communities have limited access to primary care providers, and we have been unable, as a community, to address core prevention and health maintenance issues. Without medical homes, many children develop uncontrolled illnesses that require periodic hospitalization. Under Le Bonheur Children's Hospital leadership, we will develop a pediatric primary care network to provide primary care to underserved populations. We will also continue to align with regional partners to strengthen primary and secondary care in local communities while ensuring appropriate referrals for tertiary care for complex subspecialty patients. Regional strategic plans include innovation in clinical care delivery with telemedicine and advanced communications to improve the patient experience, streamline care and strengthen subspecialty care in the region.

Aligned Physician Culture Shaping A critical first step in building a culture that allows us to be at our best for our patients and families is hiring/aligning and retaining people who demonstrate our values and culture. Through clearly defining desired behaviors and implementing rigorous selection processes, we will hire/align only with those who fit our employer brand. We will continue to shape our culture to be a conduit for driving strategic priorities by incorporating MLH principles throughout the organization and establishing a consistent work environment: an environment where Associates are valued, have work satisfaction and opportunity for growth; and where the organization's commitment to high ethical standards in providing quality care and service to the community is clearly demonstrated.

Prioritized Health Needs Not Addressed

While MHMH has strategic plans to address the majority of health needs in the community either on a larger scale or smaller scale through pilots or tests of change, there are a few priority needs identified in our assessment that MHMH does not plan to tackle. The high priority needs are all pre-determinants of health: poverty, unemployment, education and crime. MHMH will focus on the rest of the community's health needs and will support groups that are designed and resourced to positively impact these three areas of need such as Memphis Fast Forward.

The Memphis Fast Forward steering committee is jointly chaired by the Memphis and Shelby County Mayors and a designated local business leader. The committee's purpose is to set a strategic agenda to accelerate economic growth and improve the quality of life of the region. Memphis Fast Forward supports a portfolio of initiatives that facilitate economic growth and prosperity and improved quality of life by getting the basics right -- good jobs, an educated workforce, safe neighborhoods, healthy citizens and government fiscal strength. To that end, Memphis Fast Forward develops and implements strategic action plans in the following areas: (1) growing jobs and fostering expansion of key industry clusters including biosciences, healthcare, logistics, and manufacturing; (2) building a competitive workforce for the new economy by strengthening education from early childhood through college attainment; (3) reducing crime through data-driven strategies for law enforcement and intervention; (4) promoting good stewardship of tax revenues, efficient operations, strategic investments and sound financial management; and (5) improving community health and the patient experience of care while reducing the per capita cost of health care (i.e. Health Shelby Initiatives).[iv]

Strategic Implementation Plan
Methodist Healthcare – Fayette Hospital

Chronic Disease

While MFH has numerous ongoing services and programs targeting chronic disease and the precursors to such conditions, the following highlights some of most recent strategic priorities in quality and collaboration for annual execution over the next year at MFH.

Reduce Inappropriate Variation / Improve Quality We believe in order to maintain our commitment to quality excellence and thrive under health care reform, MFH must advance the discipline of managing clinical data and improving performance by applying thought processes considered leading practice by the industry. We must educate all of our Associates to understand how to employ data-driven practices in their everyday roles and to "hard wire" processes that reduce variation in error. We call this creating a "learning organization." MLH has built its delivery systems using clinical management best practices, and has adapted and implemented evidence-based clinical practice guidelines when available. It is our mission to reduce mortality rates particularly in Congestive Heart Failure (CHF) and Acute Myocardial Infarction (AMI), improve care pathways including stroke and standardize quality improvements at all MLH locations throughout the community. As of now, MFH has medical staff specializing in the following areas: family medicine, internal medicine, oncology, radiology, and cardiology.

Diabetes MFH offers a variety of educational classes led by registered nurses and dietitians which are designed to teach patients how to manage their diabetes. Our diabetes education coordinators are also available for one-on-one counseling for insulin administration and diet instruction. A dietician sees patients at MFH two days per week to address needs such as obesity and diabetes. Also, diabetes is discussed during "Lunch and Learn" sessions at MFH, where participants can learn about health-related topics while making connections with others in the community over lunch.

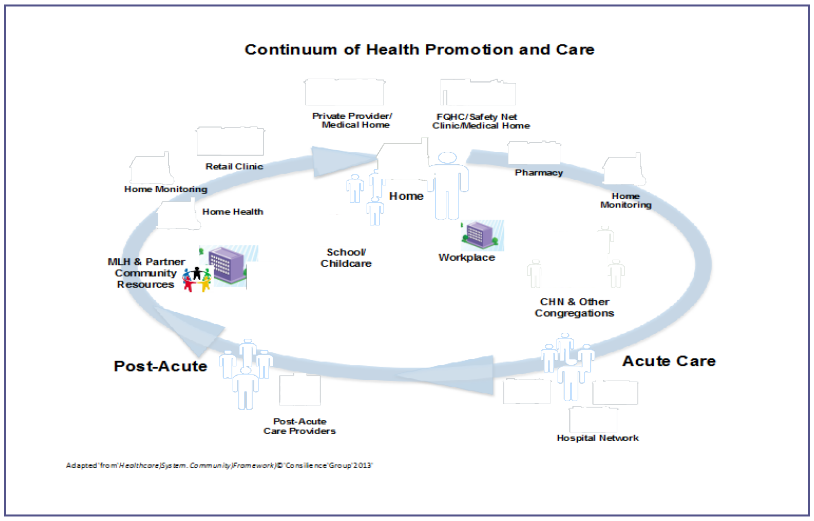
Obesity MFH strives to educate the public, patients and Associates on health related issues and when possible, offer classes, trainings and other forms of assistance to members of our community. At MFH, educational initiatives regularly pertain to obesity. For example, in addition to the availability of the dietician, Weight Watchers is onsite at MFH each Saturday. Also, "Lunch and Learn" topics often address healthy eating and healthy life-styles promoting the maintenance of a healthy weight.

Access to Care

The MLH mission is to provide high quality, cost-effective patient- and family-centered health care to all sectors of the Mid-South. As part of its mission, MLH has strategically placed and maintained a hospital in Fayette County. Methodist Fayette Hospital, located in rural Somerville, Tennessee, is a 46-bed community hospital offering inpatient and outpatient services, including a 24-hour emergency care. Methodist Fayette Hospital is the only hospital in Fayette County.

Congregation Health Network (CHN) In order to improve the community's health, we will need to ensure access to health care and preventive services. We must partner with other health care providers, especially our closely aligned faith-based providers as well as ACOs and other community partners to create an efficient network of services with multiple points of patient access and optimal navigation. The Congregational Health Network (CHN) is a covenant relationship between all MLH hospitals Mid-South congregations and community health organizations. The CHN provides a network of congregations and faith communities that are partnering with us to share the ministry of caring for our patients. Four Fayette County congregations are active CHN members. The goal of this program is to build stronger relationships with local faith communities in order to improve the patient journey through the MLH system and more broadly to build healthier communities. CHN is the infrastructure supporting our faith-based outreach projects.

Population Health Model



Source: MLH Planning and Marketing, Consilience Group

Figure 13

Health Fairs and Community Events Methodist Fayette Hospital offers health fairs and community events throughout the year. These events provide educational activities for the family in addition to free health screenings, where participants can be screened for high blood pressure and high cholesterol.

End-of-Life Care

We have made advances in medical care and coordination of care, yet there are still unaddressed needs and unnecessary suffering at the end of life for many. Current strategies address the lack of awareness and understanding of end-of-life options through general and specific education models for patients, physicians, providers, patients and families.

Nursing Home Collaborative MLH established a Nursing Home Collaborative in 2012 between the health system and local nursing homes to decrease readmissions from nursing homes, share best practices and improve quality of palliative care provided within the nursing home setting. The success of the collaborative attracted Baptist Memorial Healthcare to join the group in 2013 as a co-host for the meetings; thus forming a true community-based approach with the two largest health systems in the service area participating with over thirty local nursing homes. Quarterly meetings focus on sharing best practices which are targeted at establishing improved, consistent palliative care across the community and reporting quality measures.

Residential Hospice We focus on the social, emotional and spiritual needs of the patient and family. MLH has a well established hospice program that provides care in the home, in a nursing home, at an assisted living facility or in the MLH Hospice Residence. The Hospice Residence expanded to twenty-five beds in June 2013 offering residential, inpatient and respite care. We also have a bereavement outreach program, Camp Bravehearts, for the greater Memphis area which achieved the highest participation since inception in 2013.

The goal to formalize the Hospice and Palliative Fellowship was achieved in January 2013 when the program was approved for two adult and two pediatric fellows by the Accreditation Council for Graduate Medical Education (ACGME). The new program is one of five in the country educating pediatric palliative fellows. To further palliative services in the community, Le Bonheur Children's Hospital developed, in conjunction with St. Jude Children's Research Hospital, the Quality of Life for All Kids (QoLA Kids) palliative program for seriously ill children. Hospice staff, both in the home and in the hospice residence, provides interdisciplinary care to children throughout the illness trajectory and concurrent therapies.

Mental Health

At MLH, we want to help reduce the stigma attached to mental health problems by providing information that might prevent major depression or anxiety in someone's life. We have developed as part of the Dennis H. Jones Living Well Network a virtual front porch where patients can connect with someone, learn about depression and anxiety and get in touch with resources and tools to help with life's journey. Behavioral health assessments are available in MFH's emergency department, and behavioral health consultation/liaison services are available in MFH inpatient units. These behavioral health services are intended to navigate patients to the appropriate level of care. All services are supported by 24/7 on-call psychiatrists. Moreover, Alliance Health Services has access for referral to a full continuum of care throughout the community.

Dental Care

MFH does not have extensive dental care programs, yet there are programs in place to connect patients with more comprehensive dental care providers such as our health fairs. One closely aligned partner with substantial dental programs targeting the underserved community is Christ Community Health Services. Christ Community has three dental centers strategically located in the areas with the most need. They recognize poor dental health not only affects your teeth, but can increase your risk for disease, heart attack, stroke and even preterm pregnancy.

Prioritized Health Needs Not Addressed

While MFH has a strategic plan that specifically addresses chronic disease, access to care and end-of-life care, there are some community health needs that MFH defers to MLH to address and still others that other community organizations are best equipped to address. MFH, working in concert with the greater MLH system, helps to navigate patients to the more comprehensive healthcare resources of the MLH system as necessary. The health needs addressed by MLH are detailed in the MHMH Implementation Strategy (2013) available online at www.methodisthealth.org.

Additionally, the following pre-determinants of health were identified as high-priority community health needs: poverty, education, and crime. However, MLH will defer to and support community organizations designed, resourced and better equipped to positively impact these pre-determinants of health.

Strategic Implementation Plan
Methodist Extended Care Hospital

Chronic Disease

Shelby County is one of the least healthy communities in the country, yet, one with significant health assets, providers and academic partners all well aligned with Methodist's mission and vision. MLH views the tremendous needs in the community as opportunities. As a faith-based healthcare provider committed to meet our community's health care needs, we have an obligation to explore building smart, integrated partnerships of aligned community assets.

The Mid-South has a very high prevalence of chronic diseases and conditions. Frequently, individuals suffering from chronic illnesses require long term acute care. MECH serves the needs of this unique population and has a specially trained staff to provide highly individualized care to patients who are medically fragile and require specialized nursing care and intensive therapies through an extended hospital stay. While at MECH, patients get the acute care they need to ensure a smooth transition to home, skilled care, nursing home, rehabilitation facility or to home health care.

Disease groups served by MECH include Chronic Obstructive Pulmonary Disease (COPD) patients who frequently have a history of smoking, ventilated patients who may suffer from asthma or other breathing related conditions, kidney disease such as End Stage Renal Disease (ESRD), and those that require hemodialysis. Additionally, MECH provides care for patients who require wound therapy, antibiotic therapy and or nutritional therapy frequently as a result of complications from co-morbidities such as obesity, diabetes and stroke (cerebrovascular accident or CVA).

The patient care team includes physicians, nurses, pharmacists, medical social workers, rehabilitation therapists, respiratory therapists, specialized case managers, chaplain and patient educators. Together they develop and implement comprehensive programs and focused care to assist the patient and family to the highest functional level.

Our specialized programs include, but are not limited to:

> *Rehabilitation Program* The MECH rehabilitation team consists of highly trained physical therapists, physical therapist assistants, occupational therapists, and speech pathologists who are dedicated to helping each patient reach his or her goals and return to a higher quality of life. All patients admitted to our hospital receive individualized care that includes one-on-one visits by each discipline of the rehabilitation team to determine the best strategy for optimal care.
>
> We provide skilled evaluations and custom treatments for the following conditions, which directly relate to identified community health needs: stroke and neurological conditions, congestive heart failure (CHF), chronic obstructive pulmonary disease (COPD), and general

conditioning. Also, this program cares for those with other conditions not necessarily identified as a community health need: traumatic brain injury, post-surgical orthopedic injury, prosthetic orthotic training, and balance training.

Ventilator Weaning Program MECH's ventilator program uses evidence-based protocols to provide a progressive customized plan of care for our patients. We provide individualized programs for patients with acute or chronic respiratory disorders who may have artificial airways, ventilators or require extensive respiratory treatments to maintain normal breathing without mechanical support. We also offer basic ventilator and tracheotomy care training for those who will be caring for the needs of a loved one. A three-year study of ventilator patients was conducted within our facility to determine the best patient-to-therapist ratio and to develop a standard protocol of care following best practice models. As a result, we have had tremendous success in ventilator weaning, which has lowered 30 days on the ventilator to an average of less than 8 days. Patients with the following conditions are seen in this program: chronic obstructive pulmonary disease (COPD), pneumonia, asthma, and acute respiratory failure. All of which are associated with chronic disease needs of the community.

Our clinical interdisciplinary team works together to provide individualized care. Physician-directed treatment plans are enhanced by a bedside evaluation, assessment and plan performed by a respiratory therapist. This program is overseen by the Mid-South Pulmonary Specialists, P.C. group.

Wound Care Program The MECH wound care program treats patients with impaired tissue integrity who are at high risk for complications. The program utilizes the latest in evidence-based medical and technological treatment of wounds, customized specifically to the individual patient. The goal is to help wounds heal, ultimately allowing the patient greater comfort and improved quality of life.

After a comprehensive evaluation of the history and current status of the wound, our specially trained wound care team develops an individualized treatment plan and carefully monitors the patient's progress. Types of wounds that would benefit from the MECH wound care program include arterial and venous ulcers, pressure ulcers, diabetic and neuropathic ulcers, surgical debridement, and post-surgical or amputation complications.

End-of-Life Care

We have made advances in medical care and coordination of care, yet there are still unaddressed needs and unnecessary suffering at the end of life for many. Current strategies address the lack of awareness and understanding of end-of-life options through general and specific education models for patients, physicians, providers, patients and families.

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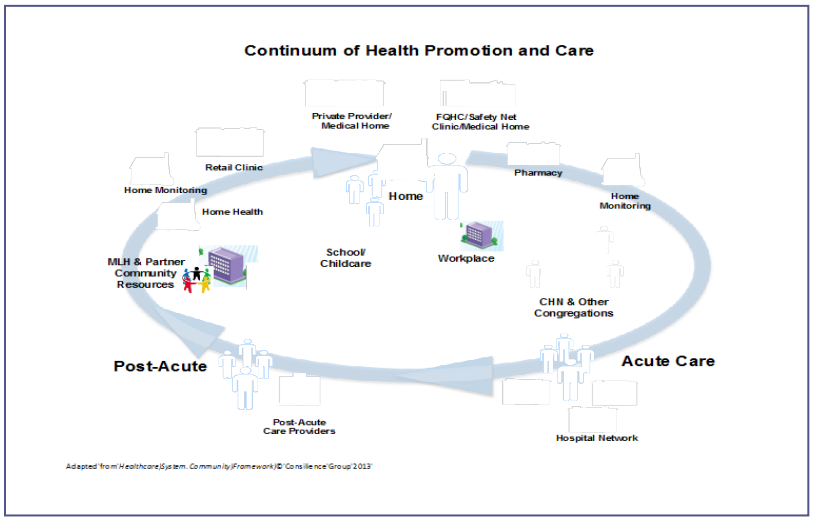
Access to Care

The MLH mission is to provide high quality, cost-effective patient- and family-centered health care to all sectors of the Mid-South.

Congregation Health Network (CHN) In order to improve the community's health, we will need to ensure access to health care and preventive services. We must partner with other health care providers, especially our closely aligned faith-based providers as well as ACOs and other community partners to create an efficient network of services with multiple points of patient access and optimal navigation. The Congregational Health Network (CHN) is a covenant relationship between all MLH hospitals Mid-South congregations and community health organizations. The CHN provides a network of congregations and faith communities that are partnering with us to share the ministry of caring for our patients. The goal of this program is to build stronger relationships with local faith communities in order to improve the patient journey through the MLH system and more broadly to build healthier communities. CHN is the infrastructure supporting our faith-based outreach projects.

Population Health Model



Source: MLH Planning and Marketing, Consilience Group

Figure 13

Health Fairs and Community Events Methodist Extended Care Hospital participates in health fairs and community events throughout the year. These events provide educational activities for the family in addition to free health screenings, where participants can be screened for high blood pressure and high cholesterol.

Prioritized Health Needs Not Addressed

MECH is strategically positioned to address a select scope of community health needs. MECH, working in concert with the greater MLH system, helps to navigate patients to the more comprehensive healthcare resources of the MLH system to address the majority of remaining prioritized needs. MLH resources pertaining to the following are available to the population served by MECH: sickle cell, arthritis, cancer care, infant mortality and teen pregnancy. These additional resources are detailed in the MHMH Implementation Strategy (2013) available online at www.methodisthealth.org.

Even still, there are identified community needs that even the MLH system does not plan to address directly. The following pre-determinants of health were all identified as high-priority needs: poverty, education, and crime. However, MLH is not as well-suited to address these pre-determinants of health as it is the other health needs. Therefore MLH will focus on the rest of the community's health needs

MLH Communications Plan

The IRS guidelines for the CHNA call for making the results of the process widely available. To meet this requirement, MLH will publish this document on its website and make hard copies available to the public upon request. These results will be incorporated into the annual IRS tax form 990 submissions for each MLH entity.

MLH Impact Evaluation Process

MLH has taken measures to continuously monitor progress. A key component of this is the use of additional, ongoing primary and secondary research data. MLH plans to survey our service area population annually. Moreover, we are partnering with other health organizations, such as the Shelby County and Tennessee Health Departments and the Centers for Disease Control and Prevention (CDC), to share data. Two existing and ongoing projects specifically targeting collaboration with these health organizations on community health are the development of the Community Health Record and the MAPP process as described previously.

In May 2013, MLH implemented the Community Benefits Inventory for Social Accountability (CBISA) software to track corporate contributions, MLH led community activities and MLH Associate participation in events throughout our service area. The tool provides facility level detail and is used to determine where we are effectively meeting community needs and where we have opportunities to strengthen community outreach and contributions.

Upon implementation, we retroactively collected data from 2012 and have seen a significant increase as we document community benefits real-time in 2013. In 2012, we served over 33,000 persons in the community and invested over $1.2 million in financial donations, Associate time, supplies/equipment, education and other community efforts. The CBISA software will continue to provide invaluable information to better meet the needs of the communities we serve.

Table 18 summarizes the community needs as summarized in this CHNA and the related contributions MLH made and reported in CBISA as a donation or event (see Table 18).

Community Benefits

Identified Need	Donation/Event
Access to Care	Board positions; Corporate contributions; Free prescriptions for 132+ persons; Free home equipment or cardiac life vest rentals for 23 persons; Free home health visits for 52 persons; Transportation vouchers for 489+ persons; Transplant education for 186+ persons; Nurse/nursing student education for 199+ persons; Other health profession education for 5,229 persons; Physician/medical student education for 357 persons
Chronic Disease:	
Obesity	Corporate contributions; Fitness/exercise for an unknown # of persons
Congestive Heart Failure	Board positions; Corporate contributions; Education expenses for 77+ persons
Stroke	Education expenses for 51 persons; Support group expenses for 305 persons
Diabetes	Corporate contributions; Education expenses for 3,777+ persons
Sickle Cell	Corporate contributions
Cancer Care	Board positions; Corporate contributions; Education for 81+ persons
Infant Mortality	Board positions; Corporate contributions
Mental Health	Board positions; Corporate contributions
End-of-Life Care	Board positions; Education for 83+ persons
Childhood Asthma	
Kidney Disease/Liver Failure	$5,650 in corporate contributions

Source: MLH CBISA Software

Table 18

Conclusions

MLH will continue to use this CHNA and Strategic Implementation Plan during its annual strategic planning process to establish strategic priorities and allocate resources to improve the health of its service area. This is in keeping with the MLH Mission and in its best interest because improving population health will ultimately reduce healthcare costs in the long term.

A significant outcome of this process is that MLH will work more closely with the Shelby County Health Department and continue participate in the formulation of goals/strategies and action cycle phases on a going-forward basis. We hope to translate the experience with other health departments in our service area.

References

[i] U.S. Census Bureau, 2006-2010 American Community survey 5-Year estimates. Retrieved from www.chna.org.

[ii] State of Tennessee, Office of the Governor. (March 2013). *Healthy Tennessee: The Governor's Campaign for Health and Wellness*.

[iii] The Urban Child Institute. (2013). *The State of Children in Memphis and Shelby County: Data Book.* Memphis, TN: The Urban Child Institute.