

Regional Medical Center Community Health Needs Assessment

Approved by
Shelby County Health Care Corporation
Board of Directors

May 22, 2013



Regional Medical Center

Community Health Needs Assessment

(CHNA)

2013 Written Report For Regional Medical Center at Memphis

("RMCM" or the "Facility")

Name and Address of Hospital Facility:

Regional Medical Center at Memphis

877 Jefferson Avenue

Memphis, Tennessee 38103

Tax Year: July 1, 2012 - June 30, 2013

I. General Information

Contact Person: Leticia Towns, Senior Vice President, External Affairs

Date of Written Report: April 15, 2013

Link to Web Site on Which Written Report Was Made Publicly Available: www.the-med.org

Date Written Report Made Publicly Available (per Notice 2011-52): June 30, 2013

Date of Prior Written Report (if applicable): N/A

Name and EIN of Hospital Organization Operating Hospital Facility: Shelby County Healthcare Corporation d/b/a Regional Medical Center at Memphis. EIN # 62-1113169

Address of Hospital Organization: 877 Jefferson Avenue, Memphis, TN 38103

II. Purpose of CHNA Written Report

This Written Report is being conducted in order to comply with federal tax law requirements set forth in Internal Revenue Code section 501(r) requiring hospital facilities owned and operated by an organization described in Code section 501(c)(3) to conduct a community health needs assessment at least once every three years. The required Written Plan Implementation, entitled the CHNA Implementation Strategy, is set forth in a separate written document. This Written Report for the Regional Medical Center at Memphis (the "Facility" or "RMCM") is intended to satisfy each of the applicable requirements set forth in IRS Notice 2011-52 regarding conducting the CHNA for the Facility.

Regional Medical Center at Memphis

Community Health Needs Assessment

Report

SECTION I - EXECUTIVE SUMMARY

The Regional Medical Center at Memphis ("RMCM") has conducted a comprehensive Community Health Needs Assessment ("CHNA") in 2013, with a goal of providing a snapshot of the overall health of the community it serves via health indicators and social determinants of health. The community assessed, for the purposes of this CHNA, is defined as a 21-zip code region in the City of Memphis, which encompasses RMCM's primary service area ("PSA"). In consideration of the findings of this assessment, implementation priorities identified were with the overall goal of improving the health status of our community. Information for this assessment was collected from multiple sources, including: 1) key stakeholder interviews; 2) telephone-based community surveys; 3) a review and analysis of demographic and health statistics.

Based on the findings from the various sources noted above, the following health indicators were identified as needs within the defined community.

- Poverty
- Teen Pregnancy
- Infant Mortality
- HIV/AIDS
- Obesity/Overweight Prevalence
- Heart Disease
- Stroke
- Education
- Lung Health
- Colorectal Cancer
- Breast Cancer
- Prostate Cancer
- Violent Crime/Homicide/Firearm-related Deaths
- Injury Deaths
- Overall Health Status
- Exercise/Fitness
- Nutrition
- Alcohol Consumption
- Smoking Prevalence
- High Cholesterol
- High Blood Pressure (Hypertension)
- Access to Primary Care
- Access to Health Insurance
- Appropriate Utilization of Health Services

SECTION II - DESCRIPTION OF METHODOLOGY

PURPOSE

Regional Medical Center at Memphis ("RMCM") has conducted this triennial Community Health Needs Assessment ("CHNA") and the separately required implementation strategy, or CHNA Implementation Strategy ("HIP"), in accordance with the requirements of Internal Revenue Service Notice 2011-52 regarding Internal Revenue Code Section 501(r). The Patient Protection and Affordable Care Act (PPACA) of 2010 requires all not-for-profit hospitals and health systems to conduct community health needs assessments at least once every three (3) years and develop supporting implementation plans to address the identified needs. This assessment serves as a guide for planning and implementation of broad-based initiatives that will allow RMCM and community partners to best serve the emerging health and socioeconomic needs of the Memphis area. RMCM engaged PricewaterhouseCoopers, LLP ("PwC") to conduct a CHNA of its defined service area.

METHODOLOGY AND PROCESS

Assessing the community's health needs was accomplished through the collection and review of primary data (both quantitative and qualitative) and secondary data (quantitative) via various data sources.

Primary Data Collection

Primary data was obtained through key stakeholder interviews used to gather information and professional opinions from persons who represent the broad interests of the community served by RMCM. Key stakeholders were identified by RMCM officials and initially contacted by RMCM and asked to participate in the CHNA. Thirty-four (34) interviews were conducted for the CHNA in October and November 2012; specifically, 16 interviews were conducted with RMCM staff, internal key stakeholders, representing various departments/functions, and 18 interviews, external key stakeholders, were conducted with local healthcare professionals, partners, academia, community officials and religious leaders. The 16 internal key stakeholder interviews were conducted to assess the current RMCM community health initiatives and resources. The 18 external key stakeholder interviews were conducted to gain insight on the perceived current health status, in addition to identifying the healthcare, social service and quality of life issues affecting those who reside in the community.

External key stakeholder participants provided recommendations for health status improvement strategies and implementable actions. The participants' collective areas of expertise include healthcare, human services, public health, disparities in healthcare, social determinants of health and access to health services. The interviewees were asked to provide their professional opinions and viewpoints on the following issues:

- Description of the health status of the community
- Factors that contribute to the described community health status
- Unmet community health needs and/or gaps in health services
- RMCM's role in meeting the health needs of the community
- Any existing collaborations to address the health status needs of the community
- Perceived access issues related to availability of health services
- Opportunities for improving health status and quality of life

A detailed listing of key stakeholder interview participants and primary collection findings are located in Appendix I.

Additionally, household surveys were conducted to ascertain insight on the community's socioeconomic factors that can impact health, access to healthcare, and their perception of their overall health status. The survey also gathered basic demographic information from participants. Overall, 122 surveys were conducted. Participants in the survey were able to discontinue participating at any point and could also choose to not answer questions if they did not feel comfortable.

Secondary Quantitative Data Collection

Secondary quantitative data were collected from a myriad of local, county, state and national sources to create a profile of the community including population demographics, access to health care, chronic diseases, behavioral risk factors, and social indicators. The data sets utilized are for the City of Memphis; Shelby County; and the State of Tennessee to frame the scope of an issue as it compares to the broader community. Where data was available, analyses were conducted at the most local level possible for RMCM's community. A detailed listing of the secondary data sources analyzed in this CHNA is provided in Appendix II.

Once the interviews and secondary quantitative information were complete, the information was reviewed and assessed and the current health status of the community was defined. Through further analysis and discussions the health needs of the community were identified. (See Section VII).

Data Limitations and Information Gaps

There is limited publically available data regarding health status indicators for the City of Memphis and the 21-zip code area comprising the community served by RMCM. This Written Report includes a measure of the Community Needs Index (CNI) by zip code for RMCM's community served. (See Section IV) However, much of the other data used to assess health needs is reported on a broader geographic basis, specifically, for Shelby County. Based on the percentage of both the zip codes of RMCM's defined community as a subset of Shelby County and the racial composition of the defined community as a ratio of the City of Memphis to Shelby County, the use of Shelby County data as a proxy for the City of Memphis and the 21-zip code defined service area is deemed reasonable.

SECTION III - DESCRIPTION OF REGIONAL MEDICAL CENTER AT MEMPHIS

Regional Medical Center at Memphis is a regional healthcare resource providing accessible, efficient, quality health care for individuals in Memphis. Regional Medical Center is anchored by highly respected Centers of Excellence including trauma, burn, neonatal intensive care, high-risk obstetrics, and sickle cell care; providing services to patients and their families from throughout the Mid-South. Rounding out the continuum of care is an array of primary and specialty care services through the Health Loop Primary Care Network and Outpatient Center.

MISSION, VISION AND VALUES

Our Mission

To improve the health and well-being of the people we serve by providing compassionate care and exceptional services.

Our Vision

In collaboration with our academic partners, we will be the premier healthcare system advancing the quality of life in our communities.

Our Values

We value quality **CARE**.

Compassion

Accountability

Respect

Excellence

WHO WE ARE AND WHY WE EXIST

Regional Medical Center at Memphis, chartered in 1829, is the oldest hospital in the State of Tennessee. Throughout its 180-year history, the hospital has evolved significantly, housing a children's hospital, tuberculosis hospital, military hospital, maternity hospital and ultimately the Regional Medical Center it is today with nationally recognized Centers of Excellence and a commitment to providing quality healthcare to all residents of the community it serves, including the uninsured and underinsured residents of Shelby County.

Regional Medical Center at Memphis is a 631-licensed bed, general acute care facility located in downtown Memphis. The medical staff is comprised of approximately 471 physicians and our workforce includes approximately 2,200 dedicated employees. In FY2012, Regional Medical Center experienced 12,928 inpatient discharges; 80,855 outpatient visits; 48,985 emergency room visits and 49,119 primary care visits. Regional Medical Center at Memphis has numerous Centers of Excellence, most notably its trauma, burn and high-risk obstetrics.

Elvis Presley Trauma Center

The Elvis Presley Trauma Center, established in 1983, is the only Level I Adult Trauma Center within 150 miles of Memphis, and is designated as a Level I Trauma Center in Tennessee, Mississippi and Arkansas. The Elvis Presley Trauma Center's multidisciplinary team of highly trained surgeons, anesthesiologists, certified registered nurse anesthetists, nurses, respiratory therapists, orderlies, x-ray and lab technicians, and medical students have treated approximately 100,000 patients over the past two decades.

Firefighters Regional Burn Center

The Firefighters Regional Burn Center is the only full-service Burn Center within a 150-mile radius of Memphis. The center is comprised of 14 beds, an outpatient clinic, surgical facilities, a rehabilitation center, wound care, restorative medicine and a research division. More than 300 patients are treated in the Burn Center annually.

Sheldon B. Korones Newborn Center

Regional Medical Center at Memphis has one of the oldest and largest neonatal intensive care units in the United States, treating more than 1,300 premature and/or critically ill newborns annually.

Other Services

In addition to these Centers of Excellence, Regional Medical Center at Memphis provides a wide array of inpatient services; medical imaging, specialty and sub-specialty care through our Outpatient Center, and primary care services through our four (4) Health Loop Clinics. Further, Regional Medical Center provides comprehensive care to HIV/AIDS patients through the Adult Special Care Center, and is home to one of the oldest sickle cell centers; providing expert care to sickle cell patients from throughout the region.

Diggs-Kraus Sickle Cell Center

For more than 80 years, the Diggs-Kraus Sickle Cell Center has provided primary outpatient medical care to sickle cell disease patients through medical procedures that have been developed at the Regional Medical Center at Memphis and adopted nationwide.

Adult Special Care Center

Regional Medical Center at Memphis provides comprehensive, yet individualized treatment for HIV-positive adults throughout the region. The Adult Special Care center provides the following services: primary and specialty medical care; nephrology care; mental health care; clinical pharmacy consultation services; medication adherence counseling; nutritional counseling and medical case management. Patients also receive guidance regarding the latest HIV-related research, support groups and networking opportunities.

OUR TEACHING MISSION

The training component and expertise shared at a health system affiliated with a medical school elevates the expert care not only in that hospital, but also in that community. Regional Medical Center at Memphis serves as one of the primary medical and surgical teaching sites for the University of Tennessee Health Science Center (UTHSC). More than half the doctors in Tennessee receive all or a portion of their training at the hospital through its affiliation with UTHSC. More than 565 residents and medical students from UTHSC trained at Regional Medical Center at Memphis during FY2012.

Regional Medical Center at Memphis is also home to a pharmacy residency program accredited by the American Society of Health System Pharmacists. The hospital serves as a primary teaching site for the University of Tennessee College of Pharmacy. During FY2011, six (6) PGY1 and PGY2 (post graduate year 1 and 2) pharmacists completed residencies at Regional Medical Center of Memphis.

ORGANIZATIONAL COMMITMENT TO THE COMMUNITY/COMMUNITY BENEFIT

As the region's safety net facility, Regional Medical Center at Memphis provides millions of dollars worth of uncompensated care to the residents of Memphis, Shelby County, Northern Mississippi and Western Arkansas. In FY2011, Regional Medical Center at Memphis provided **\$128,500,000** in uncompensated care (inclusive of bad debt, charity care and uncompensated costs from governmental payors). In addition to the vast amount of uncompensated care provided, Regional Medical Center of Memphis also reinvests into the community through sponsorships, community partnerships and employee volunteerism, as detailed below.

At Regional Medical Center at Memphis, we fully integrate our commitment to community service into our management structure as well as our strategic and operational plans, and we are dedicated in monitoring and evaluating our progress to those plans. We strive to develop innovative solutions and implement responsive programs and services. We continuously seek and foster relationships with a wide array of collaborative partners to build community and organizational capacity to improve overall health status (See Figure 1).

Our organizational commitment to community service and benefit is evidenced through our development of community benefit-focused strategic initiatives in the FY2011-FY2015 Strategic Plan. Specific initiatives related to enhancing and expanding Regional Medical Center at Memphis' community visibility and awareness include: 1) engaging and supporting community partners/organizations whose purpose is to positively impact health status and focus on health improvement through wellness and prevention; 2) increasing management participation on various civic, business and community organizations; and 3) participating in community and civic initiatives that are aligned with the organization's mission and strategic goals.

Strategic Community Partnerships and Sponsorships

As a tax-exempt organization, Regional Medical Center at Memphis strives to be a prudent steward of our resources by reinvesting in our facilities, programs, and most importantly the community. We partner with several community organizations whose mission and vision reflect improving the overall health status and wellness of the communities we jointly serve. RMCM supported the *March of Dimes* in FY2011 as a corporate sponsor with a \$25,000 gift to lower infant mortality and to support families. Figure 1 illustrates our commitment to organizations with whom we partner in shaping a healthier future in our community via corporate sponsorships:

Figure 1: Organizational Partnerships

Organization	Event
March of Dimes	Signature Chef's Dinner/Sponsorship
	March for Babies
Facing History and Ourselves	Benefit Dinner
Komen Race for the Cure	Annual 5K Race for Breast Cancer Research and Awareness
Memphis Urban League Young Professional Agents of Change	Monthly Networking Event
Make-a-Wish Foundation of Mid-South	Corporate Sponsorship
United Way of the Mid-South	Live United Campaign
American Heart Association	Heart Walk
	Heart Ball
	Go Red for Women
	Fit Friendly Worksite
	Corporate Donation
Grace Magazine	Showcase and Health Exposition

Source: RCMC Internal Records

COMMUNITY EDUCATION AND OUTREACH

Regional Medical Center at Memphis strives to improve the health status of the community it serves through promoting a safe and healthy City of Memphis and the Mid-South through various community education and outreach programs. These programs extend the expertise of RCMC's staff and academic partners beyond the walls of the institution and into the community through education and support.

Injury Prevention Education/Trauma and Burn Outreach

Regional Medical Center at Memphis is dedicated to preventing injuries that lead to hospitalization by providing education designed to prevent injuries and trips to the Trauma Center through age-appropriate education series, including Destructive Decisions for high school students, Fall Prevention Seminars for senior citizens and burn prevention and fire safety classes for children and adults. In FY2012, 3,243 individuals attended these educational offerings.

Traumatic Brain Injury (TBI) Services

Regional Medical Center at Memphis provides support and education for survivors of traumatic brain injury, in addition to their family members and caregivers. In FY2012, 1,357 TBI survivors and loved ones participated in support group events hosted by the hospital.

Sunrise Program

Regional Medical Center at Memphis offers the Sunrise Program, a hands-on educational program that encourages early prenatal care for pregnant teens with the goal of obtaining optimal health during pregnancy and beyond. Additionally, the Sunrise Program emphasizes staying in school and educating adolescents about pregnancy prevention. In FY2012, 364 expectant teen moms participated in this vital program.

Other Outreach Efforts

Healthcare professionals from Regional Medical Center at Memphis donate their time and talents to health fairs throughout the community by providing health screenings to detect both chronic and possibly life-threatening conditions and health information that is audience-specific at no costs to the partnering (host) group or organization. In FY2012, RMCM participated in community health fairs reaching more than 3,000 individuals. Specifically, RMCM extended its reach into the community via the following health fairs:

- Back to School Health Fair
- Its a Family Affair Community Health Fair
- Sisterhood Showcase
- Public Health and Safety Expo
- Medicare Sign-Up Fair
- 6th Annual Community and Family Health Awareness Day
- Real Talk: Teen Health Fair
- Grainger Health Fair
- Temple of Deliverance Church Health Fair
- RMCM Health Loop Spring Into Good Health Community Health Fair
- Community Health Summit - World Overcomers
- 10th Annual Jewish Family Services Senior Resource Fair

Employees at Regional Medical Center at Memphis embrace the health system's mission "to improve the health and well being of the people" through volunteerism efforts with partners across the community. During FY2012, RMCM's employees provided approximately 1,200 hours of volunteered time to causes and organizations with whom we collaborate to improve the quality of life of our citizenry. In addition to the aforementioned health fairs, RMCM employees offered their expertise to the following, but not limited to, events in the community:

- March of Dimes for Babies
- Komen-Mid South Race for the Cure
- LeMoyne Owen Hank Aaron Celebrity Weekend
- American Heart Association Heart Walk
- Fresh Starts Community Baby Shower
- Wear Red Week Health Cooking Demonstration
- MED Pride
- Sisterhood Showcase

In addition to staff volunteerism via health fairs, events and providing corporate sponsorships, Regional Medical Center at Memphis extends its executive presence beyond its walls through participating and/or serving as board members or board officers for numerous community partners within the community. Figure 2 depicts Regional Medical Center at Memphis' community board memberships (as of October 2012).

Figure 2: Regional Medical Center at Memphis Community Board Memberships

RMCM Executives by Board or Community Membership		
Executive	Title	Organization/Position
Reginald Coopwood, M.D.	President & Chief Executive Officer	March of Dimes/Chair, Annual Walk
		United Way of the Mid-South/Corporate Executive Team
		Memphis Rotary Club/Member
		Memphis Tomorrow Leadership Council
		Healthy Shelby Board of Directors
Robert Sumter, Ph.D.	Chief Operating Officer & Chief Information Officer	American Heart Association/Heart Walk Chair; Leadership Council
Tish Towns, FACHE	Senior Vice President, External Affairs	Make A Wish Foundation/Board Secretary
		Memphis Rotary Club, Member
		American Lung Association of the Mid-South/Board Member
		Southern College of Optometry/Board Member
		Workforce Investment Network (WIN) Board of Directors
Monica Wharton, Esq.	Senior Vice President/Legal Counsel	Facing History and Ourselves/Board Member
Rick Wagers	Executive Vice President/Chief Financial Officer	Downtown Memphis Commission/Parking Authority Committee
Pam Castleman	Chief Nursing Officer	Lifeblood Board of Directors
		Delta Region Trauma Council for Mississippi
		Nursing Institute of the Mid-South Board of Directors
Tammie Ritchey	Vice President/Executive Director, MED Foundation	Memphis Rotary Club/Member
Lori Spicer	Manager, Community Affairs and Engagement	Community Building and Education/President

Source: RMCM Internal Records

SECTION IV - DESCRIPTION OF THE SERVICE AREA

THE COMMUNITY WE SERVE

The Regional Medical Center at Memphis provides services to Shelby County residents as well as other parts of the state of Tennessee, Arkansas, Alabama, Mississippi and Missouri. However, based on the predominance of patients served and health services provided, RCMC regards a particular geographic area comprised of 21 zip codes located within the City of Memphis as the community served by RCMC for purposes of this Written Report. (See Figure 3) The population of this defined area accounts for 80% of the population of the City of Memphis. The City of Memphis is approximately 70% of Shelby County (U.S. Census Bureau). In 2011, of the 11,563 total inpatient discharges at Regional Medical Center at Memphis, 72.5% originated from the defined area.

Figure 3: Regional Medical Center at Memphis Service Area with 2011 Population Density



Source: Thomson Reuters

In order to understand and fully assess the healthcare status and needs of a community, one must begin with an analysis of demographic characteristics. Major changes or shifts in population relative to its size, racial and/or ethnic composition, and age stratification can impact what type of health care services and resources are required for a population to maintain its health, in addition to projecting future health care needs. As depicted in Figure 4 below, the overall population of Regional Medical Center at Memphis' service area is

projected to remain relatively flat; 522,056 residents in 2011 to 522,183 residents by 2016 (RMC Internal Data).

Figure 4: Population Breakdown of RMC Service Area for 2011 and 2016 by Zip Code

Population by Zip Code			
Zip Code	Population-2011	Population-2016	Percent Change
Service Area			
38103-Memphis	12,198	12,361	1.34%
38104-Memphis	22,504	22,212	-1.30%
38105-Memphis	6,394	6,563	2.64%
38106-Memphis	27,097	27,047	-0.18%
38107-Memphis	17,525	17,092	-2.47%
38108-Memphis	19,001	18,515	-2.56%
38109-Memphis	47,268	48,168	1.90%
38111-Memphis	42,488	43,398	2.14%
38112-Memphis	18,253	18,114	-0.76%
38114-Memphis	26,403	25,925	-1.81%
38115-Memphis	38,887	39,600	1.83%
38116-Memphis	39,839	39,801	-0.10%
38118-Memphis	41,059	41,544	1.18%
38122-Memphis	24,602	24,177	-1.73%
38126-Memphis	6,947	6,344	-8.68%
38127-Memphis	44,777	44,238	-1.20%
38128-Memphis	44,034	44,412	0.86%
38131-Memphis*	0	0	0
38132-Memphis	44	61	38.64%
38134-Memphis	42,170	42,186	0.04%
38152-Memphis	566	425	-24.91%
Total	522,056	522, 183	0.02%

Source: RMC Internal Data, ESRI Business Information Solutions, October 10, 2012

* No population reported for zip code 38131

Both Shelby County and the State of Tennessee are also projected to have minimal population growth during the same time period, 1.1% and 4.1% growth, respectively (Thomson Reuters).

Age Composition

The median age of the primary service area is 34.6 years compared to 38.0 years in the State of Tennessee and 35.2 years in the United States (U.S. Census Bureau). In the next five (5) years, the primary service area's population is expected to realize considerable growth in the 65 and older age cohorts, as compared to a decrease in population from ages 35-54 (see Figure 5). These age cohort demographic trends are mirrored for both the State of Tennessee and the U.S. An increase in these age cohorts will have an impact on the demand and supply of health resources as with increased age comes the increased consumption of healthcare goods and services.

Figure 5: Age Composition of Service Area in 2011 and 2016

Age Range (in years)	Service Area-2011	Percent Service Area-2011	Service Area-2016	Percent Service Area-2016	Percent Pop. Change
00-14	113,606	21.76%	113,690	21.77%	0.07%
15-24	87,181	16.70%	82,931	15.88%	-4.87%
25-34	78,373	15.01%	79,879	15.30%	1.92%
35-44	63,961	12.25%	61,396	11.76%	-4.01%
45-54	69,103	13.24%	63,223	12.11%	-8.51%
55-64	57,362	10.99%	61,287	11.74%	6.84%
65+	52,470	10.05%	59,777	11.45%	13.93%
Total	522,056	100%	522,183	100%	0.02%

Age Range (in years)	United States-2011	Percent United States-2011	United States-2016	Percent United States-2016	Percent Pop. Change
00-14	61,361,716	19.74%	63,508,153	19.73%	3.50%
15-24	43,805,578	14.09%	42,961,696	13.35%	-1.93%
25-34	41,490,293	13.35%	43,703,060	13.58%	5.33%
35-44	41,157,311	13.24%	40,776,222	12.67%	-0.93%
45-54	44,993,090	14.47%	42,362,235	13.16%	-5.85%
55-64	37,082,803	11.93%	40,799,112	12.68%	10.02%
65+	40,966,369	13.18%	47,715,432	14.83%	16.47%
Total	310,857,160	100%	321,825,910	100%	3.53%

Age Range (in years)	Tennessee-2011	Percent Tennessee-2011	Tennessee-2016	Percent Tennessee-2016	Percent Pop. Change
00-14	1,240,136	19.39%	1,290,134	19.32%	4.03%
15-24	866,201	13.54%	858,218	12.85%	-0.92%
25-34	832,766	13.02%	875,929	13.12%	5.18%
35-44	860,321	13.45%	859,012	12.86%	-0.15%
45-54	929,055	14.52%	885,095	13.25%	-4.73%
55-64	799,723	12.50%	885,526	13.26%	10.73%
65+	868,641	13.58%	1,024,793	13.34%	17.98%
Total	6,396,843	100%	6,678,707	100%	4.41%

Source: RCMC Internal Data, ESRI Business Information Solutions, October 19, 2012

Race/Ethnicity

The racial/ethnic composition of RCMC's primary service area is a direct contrast to the State of Tennessee and the U.S. The service area is predominately composed of Blacks and Hispanics (77%), while 20% are White/Caucasian (RCMC Internal Data). Conversely, the State of Tennessee and the U.S. are predominantly composed of Whites/Caucasians, 76% and 64%, respectively (see Figure 6).

Although the service area's overall population is projected to remain flat in 2016, specifically, it is projected to realize some growth in its Hispanic population. Specifically, the service area's Hispanic population is projected to increase 2.11%, as compared to a projected decrease in the White/Caucasian population (1.79%). The Hispanic population is projected to realize the greatest increase in population growth for both the State of Tennessee and the U.S. (U.S. Census Bureau).

Figure 6: RMCM Community Demographic Breakdown for 2011 and 2016 as Compared To State of Tennessee and the U.S.

Race	Service Area-2011	Percent Service Area-2011	Service Area-2016	Percent Service Area-2016	Percent Service Area Change
White	106,373	20.38%	97,059	18.59%	-1.79%
Black	368,069	70.50%	366,132	70.12%	-0.38%
Hispanic	34,746	6.66%	45,790	8.77%	2.11%
Asian	6,051	1.16%	6,246	1.20%	0.04%
American Indian	957	0.18%	952	0.18%	-0.00%
All Others	5,860	1.12%	6,004	1.15%	0.03%
Total	522,056	100%	522,183	100%	0.00%

Race	Tennessee-2011	Percent Tennessee-2011	Tennessee-2016	Percent Tennessee-2016	Percent Service Area Change
White	4,835,652	75.59%	4,966,572	74.36%	-1.23%
Black	1,053,989	16.48%	1,088,815	16.30%	-0.18%
Hispanic	301,377	4.71%	392,636	5.88%	1.17%
Asian	93,095	1.46%	105,191	1.58%	0.12%
American Indian	16,394	0.26%	17,335	0.26%	0.00%
All Others	96,336	1.51%	108,158	1.62%	0.11%
Total	6,396,843	100%	6,678,707	100%	0.00%

Race	United States-2011	Percent United States-2011	United States-2016	Percent United States-2016	Percent Service Area Change
White	197,593,036	63.56%	198,040,786	61.54%	-2.02%
Black	37,876,030	12.18%	38,948,537	12.10%	-0.08%
Hispanic	51,596,810	16.60%	59,132,528	18.37%	1.77%
Asian	14,938,395	4.81%	16,298,261	5.06%	0.25%
American Indian	2,254,024	0.73%	2,330,605	0.72%	-0.01%
All Others	6,598,865	2.12%	7,075,193	2.20%	0.08%
Total	310,857,160	100%	321,825,910	100%	0.00%

Source: RMCM Internal Data, October 19, 2012; U.S. Census Bureau

Education

Factors such as educational attainment, income, and employment have been associated with a community's health status. Additionally, these factors can influence the health of a community (County Health Rankings). Overall, low levels of education, lack of financial resources and low levels of social support are linked to lower health status (World Health Organization). Educational attainment impacts the ability to obtain employment, therefore increasing the likelihood of obtaining access to health care.

The High School graduation rate in the City of Memphis is 70.8%, lower than Shelby County, the State of Tennessee and the United States (see Figure 7).

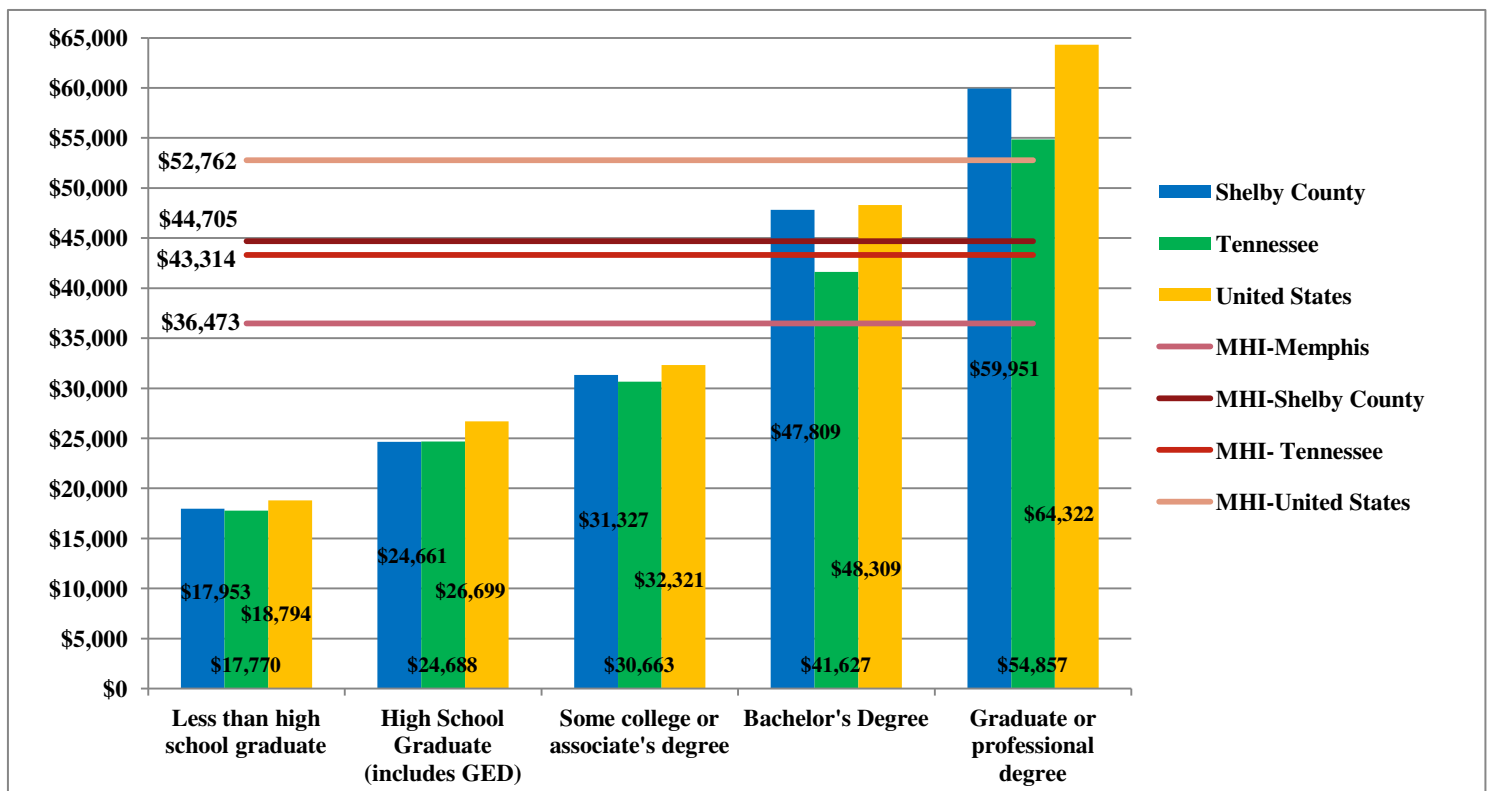
Figure 7: 2010 High School Graduation Rate Memphis, Shelby County, State of Tennessee and the U.S.

	Memphis	Shelby County	Tennessee	United States
High School Graduation Rate	70.8%	91.2%	86.1%	89.8%

Source: Tennessee Department of Education & National Center for Education Statistics

The level of education and median income level are positively correlated; as the level of education rises so does the income level for an individual (see Figure 8). The earnings potential for residents with a high school diploma or higher are greater in Shelby County than the State of Tennessee and also compares favorably to the earnings potential of the U.S. (American Community Survey).

Figure 8: Median Household Income by Education Level in Shelby County, State of Tennessee and the U.S.



Source: The Urban Child Institute, 2012 & U.S. Census Bureau, American Community Survey

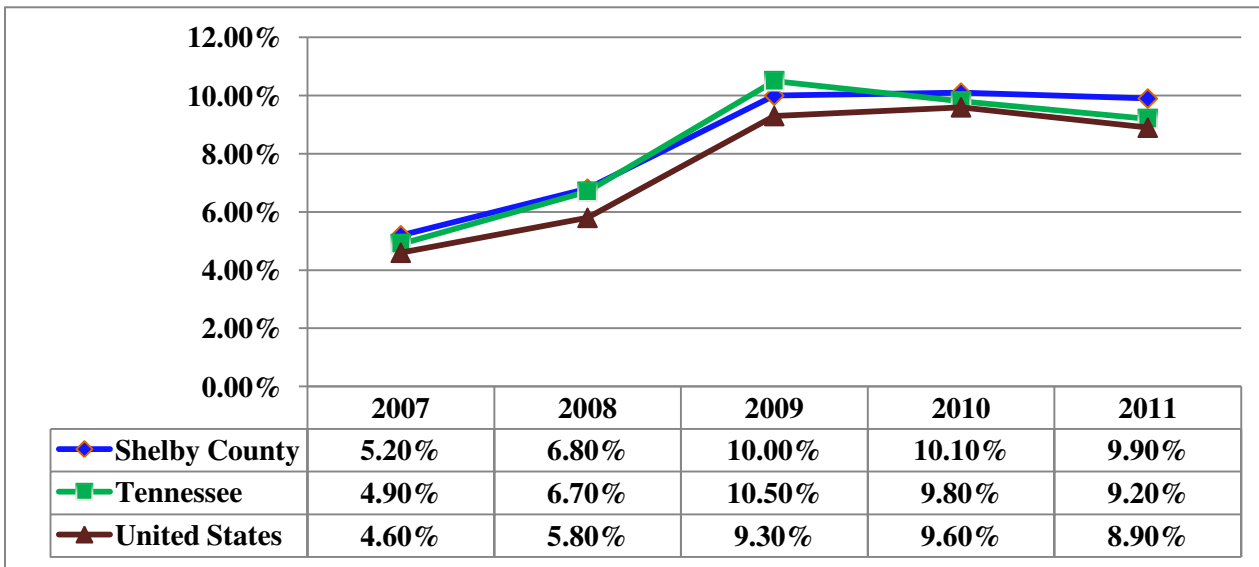
Income

The median household income for the City of Memphis is \$36,473, compared to the state median of \$43,314 (US Census Bureau, see Figure 8). In the service area, 36.8% percent of households have an income under \$25,000, as compared to 28.8% for the State of Tennessee and 23.7% for the U.S. (RMCM Internal Data, ESRI Business Solutions, see Appendix III).

Employment

Shelby County experienced a high unemployment rate of 9.9% in 2011, compared to 9.2% in the State and 8.9% in the United States (Tennessee Department of Labor and U.S. Bureau of Labor Statistics). Since 2007, Shelby County has experienced a higher unemployment rate than both the State of Tennessee and the United States except in 2009 when the state’s unemployment rate exceeded Shelby County’s unemployment rate (see Figure 9).

Figure 9: Annual Unemployment Rates, 2007-2011



Source: U.S. Bureau of Labor Statistics; Tennessee Department of Labor

Poverty

As of August 2012, Shelby County’s Labor force totals 441,950 people, of which 39,590 people were unemployed resulting in a high unemployment rate of 8.9% (Tennessee Department of Labor). Unfortunately, the high unemployment rate greatly affects finances in the community. Approximately 11.7% of people in the U.S. live below the federal poverty limit (US Census Bureau); 55.3% of families in Shelby County live below the federal poverty limit, over 5 times the State of Tennessee and national levels (see Figure 10).

Figure 10: Percentage of Families Living in Poverty:

	Shelby County	Tennessee	United States
Below Federal Poverty Level	55.3%	13.7%	11.7%

Source: The Urban Child Institute, 2012 and U.S. Census Bureau, American Community Survey, 2011

Poverty also can adversely affect a child's development; the effects of early poverty often persist into adulthood (Urban Child Institute). Nearly 30% of children in Shelby County live in poverty compared to 25.7% of children in Tennessee and 21.6% of children in the United States (U.S. Census Bureau, 2010).

The lack of financial resources weighs heavily on health status of the community; about 17% of the population is uninsured with 18% of people reporting that they are underinsured (Shelby County Health

Department) whereas in 2009 15.7% of the state of Tennessee was uninsured (Tennessee Behavioral Risk Factor Surveillance System). These factors greatly affect the population’s ability to receive healthcare and consequently negatively affect their health status.

The lack of financial resources can affect the ability to provide healthy food, good education and quality housing for individuals and their families. From 2007 to 2011, an average of 7,656 people were homeless in Shelby County (U.S. Department of Housing and Urban Development).

Figure 11: Estimated Count of Homeless in Shelby County, 2007-2011

	Persons or Families in Emergency Shelters	Persons or Families in Transitional Housing	Individuals in Emergency Shelters	Individuals in Transitional Housing	Persons or Families in Permanent Supportive Housing	Individuals in Permanent Supportive Housing	Total Reporting Across Categories
2007	906	1,011	4,213	2,456	N/A	N/A	8,586
2008	930	1,004	3,119	1,851	N/A	N/A	6,904
2009	1,161	1,212	3,395	2,223	N/A	N/A	7,991
2010	1,022	1,220	3,222	1,014	74	309	6,861
2011	862	1,356	3,734	1,348	134	508	7,942
Emergency shelters are places for people to live temporarily when they can't live in their previous residence							
Transitional housing is longer-term housing for victims and survivors of domestic violence and their children							
Permanent supportive housing is long-term, community-based housing that has supportive services for homeless persons with disabilities, mental disorders and other health issues							

Source: 2007-2011 Annual Homeless Assessment Reports to Congress, U.S. Department of Housing and Urban Development

Of the people who are homeless in Shelby County, women are more likely to be homeless with families and men are more likely to be homeless as individuals. African Americans are disproportionately affected by homelessness, accounting for nearly 81% of the homeless population. Among people in emergency or transitional shelters, about 56% are children under the age of 12 (2011 Annual Homeless Assessment Report to Congress).

Crime

The 2010 violent crime rate per 100,000 people in the City of Memphis was 1,006.5, lower than the rate for Shelby County, but higher than the violent crime rate for the State of Tennessee, and over three time the violent crime rate for the U.S. (see Figure 12).

Figure 12: Violent Crime Rate per 100,000

	Memphis	Shelby County	Tennessee	United States
Violent Crime Rate	1,006.5	1,529.3	608.2	386.3

Source: Healthy People 2020 and Federal Bureau of Investigation (FBI)

According to the Federal Bureau of Investigation, violent crime is composed of four offenses: murder and non-negligent manslaughter, forcible rape, robbery and aggravated assault.

SECTION V - DESCRIPTION OF HEALTH CARE RESOURCES IN THE COMMUNITY

The residents in RCMC's community are served by a myriad of healthcare and health services providers comprised of acute care hospitals and health systems, rehabilitation and sub-acute facilities, long-term care facilities, behavioural health facilities and various community-based social services agencies.

Hospitals and Health Systems

Shelby County is served by 13 general, acute care hospitals, of which 11 are located in the City of Memphis. In 2011, these hospitals accounted for 3,900 licensed inpatient beds and 130,212 inpatient discharges (Tennessee Department of Health). The Memphis market is highly consolidated with three (3) health systems (Baptist Memorial Health Care, Methodist Le Bonheur Healthcare and Tenet) accounting for 85% of total hospital discharges in RCMC's service area (Tennessee Hospital Association, 2011). Additionally, Regional Medical Center at Memphis, Delta Medical Center and other area hospitals account for the remaining 15% percent of inpatient discharges in 2011. A detailed listing of the hospital and health system providers is found in Figures 13-17 below.

Baptist Memorial Health Care

Baptist Memorial Health Care is the largest health system in Memphis, consisting of 14 total hospitals; of which two (2) are located in the City of Memphis. Baptist Memorial Health Care (Memphis) is licensed for 876 beds, has over 4,000 physicians on staff (300 employed) and experienced approximately 33,173 discharges in 2011. Baptist also operates the Baptist College of Health Sciences (Health Leaders Interstudy, Memphis Market Overview).

Figure 13: Baptist Memorial Health Care Hospitals - Memphis

Facility	# of Beds
Acute Care Hospitals	
Baptist Memorial Hospital- Memphis	706
Baptist Memorial Hospital for Women- Memphis	140
Total	846

Source: Tennessee Department of Health 2011 Joint Annual Reports; Health Leaders Interstudy Memphis Market Overview

Additionally, Baptist Memorial Health Care operates four (4) minor medical centers (urgent care), with one (1) located in Memphis; and eight (8) home care/hospice centers, with four (4) locations in Memphis.

Methodist Le Bonheur Health Care

Methodist Le Bonheur is the second largest health system in Memphis, consisting of six (6) total hospitals, of which four (4) are located in Memphis. Methodist Le Bonheur is licensed for 1,274 acute care beds, has over 1,914 physicians on staff (170 employed) and experienced 45,239 discharges in 2011. Methodist/Le Bonheur is also a teaching affiliate of the University of Tennessee Health Science Center and the University of Memphis (Health Leaders Interstudy, Memphis Market Overview).

Figure 14: Methodist Le Bonheur Health Care Hospitals

Facility	# of Beds
Acute Care Hospitals	
Methodist University Hospital	617
Methodist North Hospital	246
Methodist South Hospital	156
Le Bonheur Children's Medical Center	255
Sub-total	1,274

Source: Tennessee Department of Health 2011 Joint Annual Reports; Health Leaders Interstudy Memphis Market Overview

Additionally, Methodist Le Bonheur operates LeBonheur Children's Medical Center, a regional referral children's hospital that serves six (6) states. The hospital provides a Level I NICU and 45 pediatric specialties, including open heart surgery and neurosurgery. Le Bonheur is the primary pediatric teaching site for the University of Tennessee Health Science Center.

Methodist LeBonheur Healthcare operates four (4) minor medical centers; two (2) comprehensive wound healing centers; five (5) surgery centers; seven (7) diagnostic imaging centers and two (2) sleep disorder centers.

Tenet Healthcare Corporation (Saint Francis)

Tenet Healthcare operates two (2) hospitals in the Shelby County. Both facilities are named Saint Francis; one is located in Memphis and the other is located in Bartlett. The hospitals are licensed for 724 beds, have 800 physicians on staff (29 employed) and experienced 20,736 discharges in 2011. (Health Leaders Interstudy, Memphis Market Overview).

Figure 15: Tenet Healthcare Corporation Hospitals - Shelby County

Facility	# of Beds
Saint Francis Hospital- Memphis	528
Saint Francis Hospital - Bartlett	196
Total	724

Source: Tennessee Department of Health 2011 Joint Annual Reports; Health Leaders Interstudy Memphis Market Overview

Other Hospital Facilities

In addition to acute care facilities, the residents of Memphis also have access to specialty hospitals, including rehabilitation and mental health, in addition to the Veterans Affairs Hospital which provides services to veterans and their families.

Figure 16: Other Hospitals in Memphis Area

Facility Name	City	# of Beds
Acute Care Facilities		
Regional Medical Center at Memphis*	Memphis	631
Delta Medical Center	Memphis	243
St. Jude's Children's Research Hospital	Memphis	56
Veterans Affairs Medical Center- Memphis	Memphis	70
Specialty Facilities		
Baptist Memorial Restorative Health Care	Memphis	30
Community Behavioral Health	Memphis	50
Methodist Extended Care Hospital	Memphis	36
HealthSouth Rehabilitation Hospital	Memphis	80
HealthSouth Rehabilitation Hospital- Memphis North	Memphis	40
Lakeside Behavioral Health System	Memphis	290
Memphis Mental Health Institute	Memphis	111
Select Specialty Hospital- Memphis	Memphis	39

Source: Tennessee Department of Health 2011 Joint Annual Reports; Health Leaders Interstudy Memphis Market Overview *Note: Description of services provided in Chapter I.

Long Term Care Facilities

For residents of Memphis in need of skilled nursing and rehabilitation services, there are 29 facilities located in Memphis/Shelby County (Figure 17).

Figure 17: Long Term Care Facilities in Memphis/Shelby County

Facility Name
Allen Morgan Health and Rehabilitation Center
Allenbroke Nursing and Rehabilitation Center
Americare Health and Rehabilitation Center
Applingwood Health Care Center
Baptist Memorial Hospital- Memphis Skilled Nursing Facility
Bright Glad Health and Rehabilitation Center
Court Manor Nursing Center, Inc.
Dove Health and Rehab of Collierville, LLC
Grace Healthcare of Cardova
Graceland Nursing Center, LLC
Kirby Pines Manor
Memphis Jewish Home
Methodist Healthcare Skilled Nursing Facility
Midsouth Health and Rehabilitation Center
Millington Healthcare Center
Overton Park Healthcare Center
Parkway Health and Rehabilitation Center
Primacy Healthcare and Rehabilitation Center
Quality Care Center of Memphis

Quince Nursing and Rehabilitation Center
Rainbow Health and Rehabilitation
Saint Francis Nursing Home
Signature Healthcare of Memphis
Spring Gate Rehabilitation and Healthcare Center
St. Peter Villa, Inc.
The King's Daughters and Sons Home
The Village at Germantown
Wesley Highland Manor
Whitehaven Community Living Center

Source: Tennessee Department of Health 2011 Joint Annual Reports

Other Service Providers

In addition to hospital-based providers, residents of Memphis have access to health services provided via other non-for-profit providers, including Federally Qualified Health Centers ("FQHCs"), faith-based organizations and disease-specific organizations, i.e. American Cancer Society. A detailed listing of these organizations is provided in Appendix IV.

SECTION V - HEALTH STATUS INDICATORS

In order to measure and determine the overall health status of the community, an analysis of the public health needs of the community was performed. This analysis included not only examining public health indicators at the County level, but also an examination of all health and socioeconomic factors that contribute to the community's health status at the more granular zip-code level. RCMC utilized this bifurcated approach to determine the health status of its community.

Community Needs Index

Catholic Healthcare West, in partnership with Thomson Reuters, developed the country's first standardized Community Needs Index (CNI). The CNI measures the severity of health disparity for every zip code in the United States and demonstrates the link between community need, access to care, and preventable hospitalizations. The ability to pinpoint neighborhoods with significant barriers to health care access is an important advancement for health service providers and public health advocates (<http://cni.chw-interactive.org>).

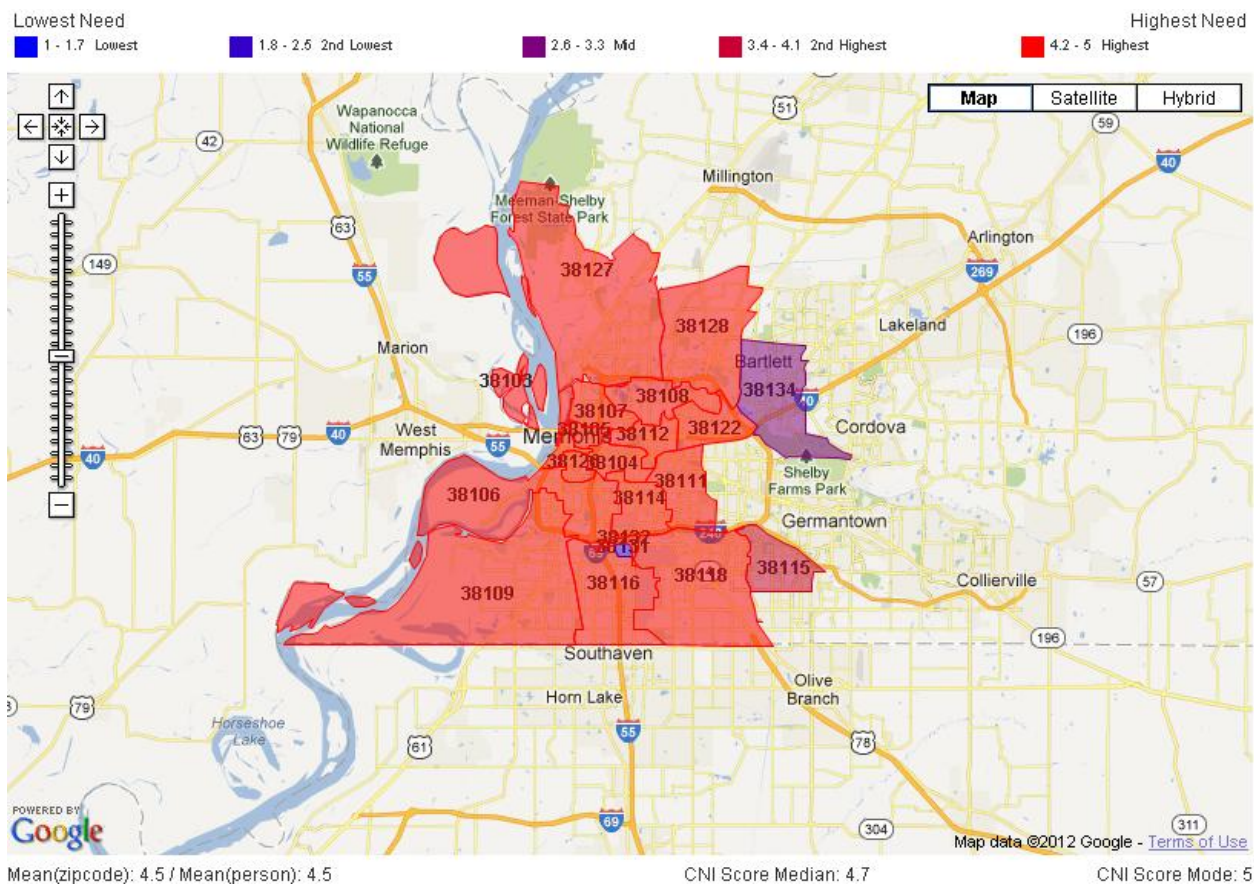
In addition to public health data, the CNI takes into account the underlying socioeconomic and structural barriers that affect overall health. Using a combination of research, literature and experiential evidence, five prominent barriers that make it possible to quantify health care access in communities across the nation were identified:

- Income barriers- Percentage of elderly, children and single parents living in poverty
- Cultural/language barriers - Percentage Caucasian/non-Caucasian and percentage of adults over the age of 25 with limited English proficiency
- Educational barriers - Percentage without high school diplomas
- Insurance barriers - Percentage uninsured and percentage unemployed
- Housing barriers - Percentage renting homes

To determine the severity of barriers to health care access, the CNI gathers data about the community's socio-economy i.e. what percentage of the population is elderly and living in poverty; what percentage of the population is uninsured, etc. Using this data, scores are assigned to each barrier condition. The scores are then aggregated and averaged for a final CNI score (each barrier receives equal weight in the average). A score of 1.0 indicates a zip code with the lowest socioeconomic barriers, versus a score of 5.0 represents a zip code with the most socioeconomic barriers.

The following map (Figure 18) illustrates the CNI scoring for the RCMC community. The CNI map is color-coded, indicating need by zip code on a scale from blue (lowest need) to red (highest need).

Figure 18: Regional Medical Center at Memphis Community Needs Index Map



Source: <http://cni.chw-interactive.org>

As noted in the map above, only two (2) out of the 21 zip codes in RCMC's service area are scored as having low health status improvement needs; the remaining 19 zip codes are all reflected as high health status improvement need areas. Areas identified as high need have CNI score of 4.2-5.

County Health Rankings

County Health Rankings is a community health assessment model developed by the University of Wisconsin Population Health Institute in conjunction with the Robert Wood Johnson Foundation, based on a conceptual model of population health that includes by Health Outcomes (length and quality of life) and Health Factors (determinants of health). The rankings are based on a summary composite score that is calculated from the following individual measures:

Overall Health Outcomes

1. Health Outcomes - Mortality (premature death)
2. Health Outcomes - Morbidity (health-related quality of life; birth outcomes)

Overall Health Factors

3. Health Factors - Health behaviors (alcohol use; diet/exercise; sexual activity; tobacco use)
4. Health Factors - Clinical care (access to care; quality of care)
5. Health Factors - Social and economic factors (education; employment; income; community safety; family and social support)
6. Health Factors - Physical environment (built environment; environmental quality)

The following table outlines Shelby County's relative rankings for the aforementioned individual measures (Figure 19):

Figure 19: County Health Rankings - Shelby County

Type of Measure	County Ranking
Overall Health Outcomes	59
Mortality	61
Morbidity	52
Overall Health Factors	66
Health Behaviors	55
Clinical Care*	12
Social and Economic Factors	85
Physical Environment	95

Source: www.CountyHealthRankings.org, 2012

*Defined as access to care (% <65 w/o insurance; population per primary care provider) and quality of care (preventable hospitalizations; diabetes and mammography screenings)

As depicted in the table above, Shelby County is ranked 59th out of the total 95 counties in the State of Tennessee for overall health outcomes, and 66th for overall health behaviors. Conversely, Shelby County is ranked 12th for clinical care, which measures both the quality and access to care.

Below is an examination of the health status of the community through the assessment of a myriad of indicators that measure health and socioeconomic factors, including but not limited to, chronic conditions, leading causes of death and obesity.

Health Indicators

In 2008, the age adjusted mortality rate in Shelby County was 921.9 per 100,000 (Healthy People 2020). This is much higher than the State and the Country and is one half times greater for Black people than White people (see Figure 20).

Figure 20: Age Adjusted Mortality Rate by Race, 2008

	Shelby County	Tennessee	United States
Total	921.9	888.8	759.0
White	786.7	871.3	751.0
Black	1108.6	1036.2	936.0

Source: Healthy People 2020 & U.S. National Center for Health Statistics

In addition, the 2006 average life expectancy in Shelby County was 74.4 years, one year less than the State and almost four years less than the United States (see Figure 21).

Figure 21: Average Life Expectancy

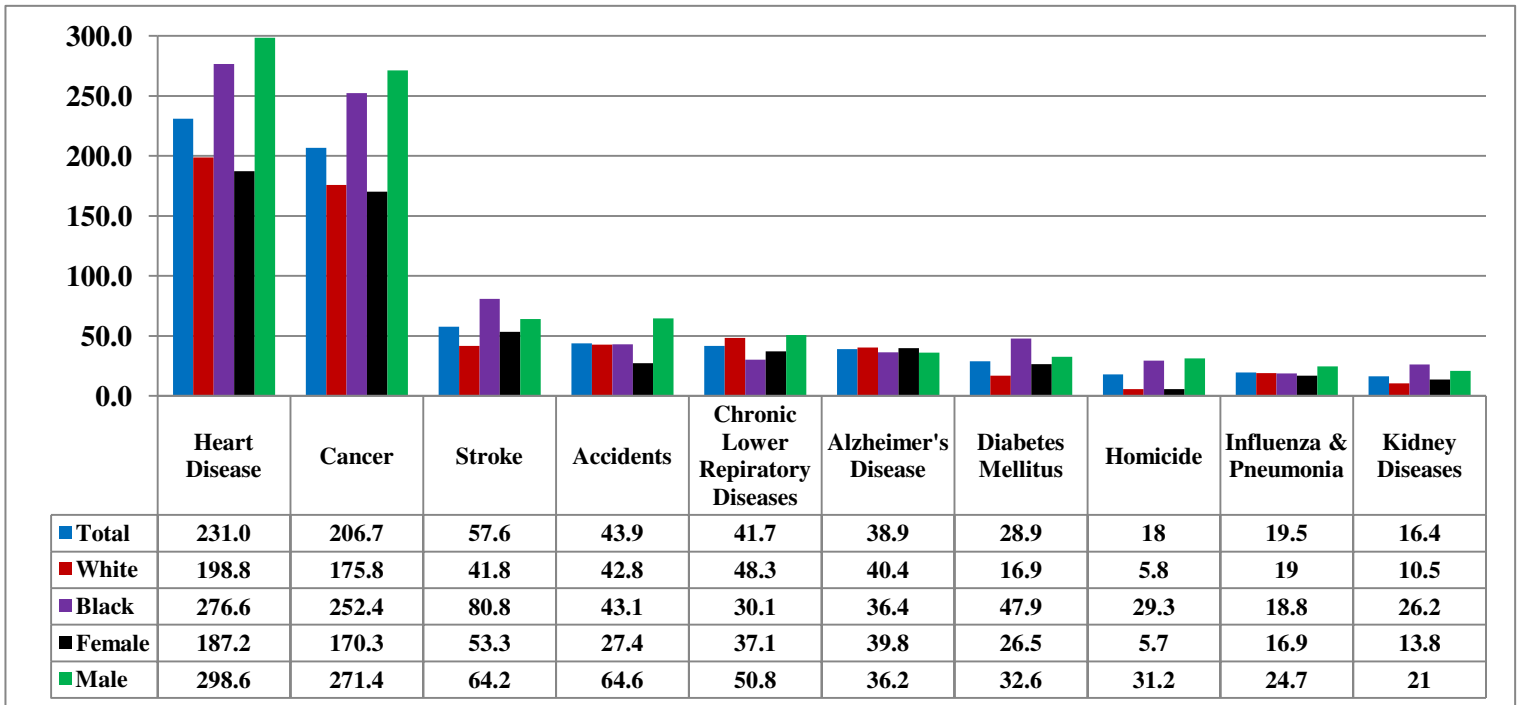
	Shelby County	Tennessee	United States
Life Expectancy in Years	74.4	75.4	78.5

Source: Tennessee Department of Health & U.S. National Center for Health Statistics

Leading Causes of Death

From 2007 to 2009, the top ten age adjusted causes of death in Shelby County were: 1) Heart Disease, 2) Cancer, 3) Stroke, 4) Accidents, 5) Chronic Lower Respiratory Diseases (CLRD), 6) Alzheimer's Disease, 7) Diabetes Mellitus, 8) Homicide, 9) Influenza and Pneumonia, and 10) Kidney Disease (Death Statistical System, Tennessee Department of Health). The death rates are greatest among African Americans and males for all causes except CLRD, influenza and pneumonia and Alzheimer's disease, which are highest among white individuals (see Figure 22).

Figure 22: Shelby County Leading Causes of Death by Race and Sex per 100,000, 2007-2009



Source: Death Statistical System, Tennessee Department of Health

Shelby County experiences a greater death rate per 100,000 people across all ages compared to the State of Tennessee (see Figure 23).

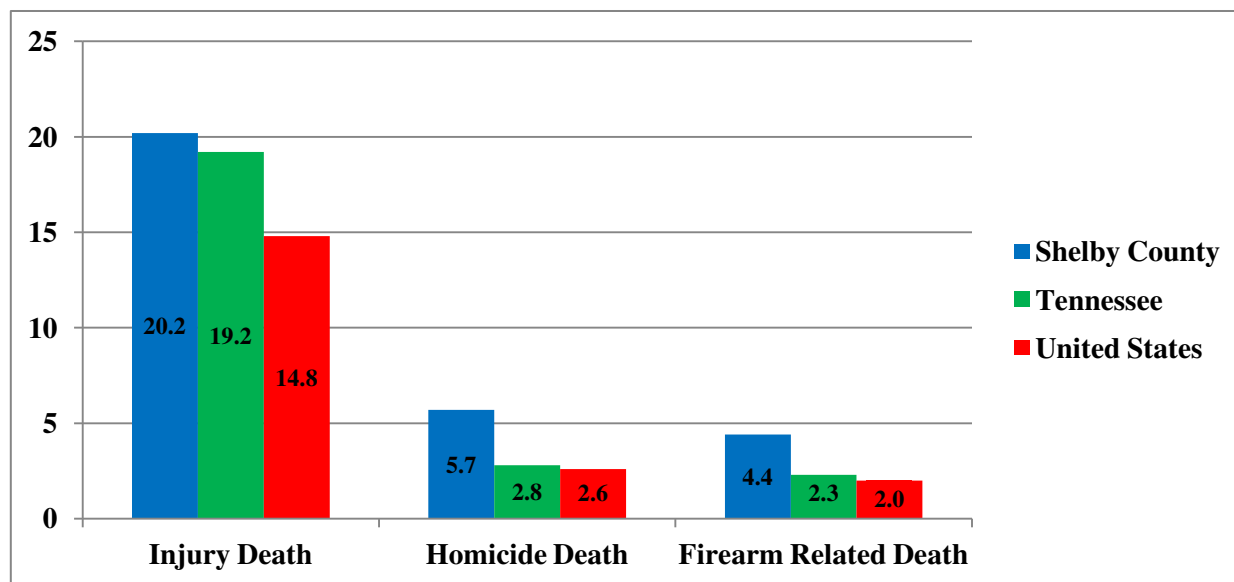
Figure 23: Deaths per 100,000 (All Causes) 2003-2009

	Shelby County	Tennessee
<18 years	106.8	76.2
18-44 years	206.5	180.1
45-64 years	815.3	801.9
65+ years	5,300.0	5,099.5

Source: Healthy People 2020

Contributing factors to the disparity in the death rate between Shelby County and Tennessee are the high injury death rate, homicide death rate, and firearm related death rate for individuals under the age of 18 years per 100,000 people (Healthy People 2020). The homicide and firearm related death rate for individuals under the age of 18 is double the State rates and double the national rates for homicide and firearm related deaths (see Figure 24).

Figure 24: Injury, Homicide & Firearm Related Deaths per 100,000 for individuals <18 years, 2003- 2009



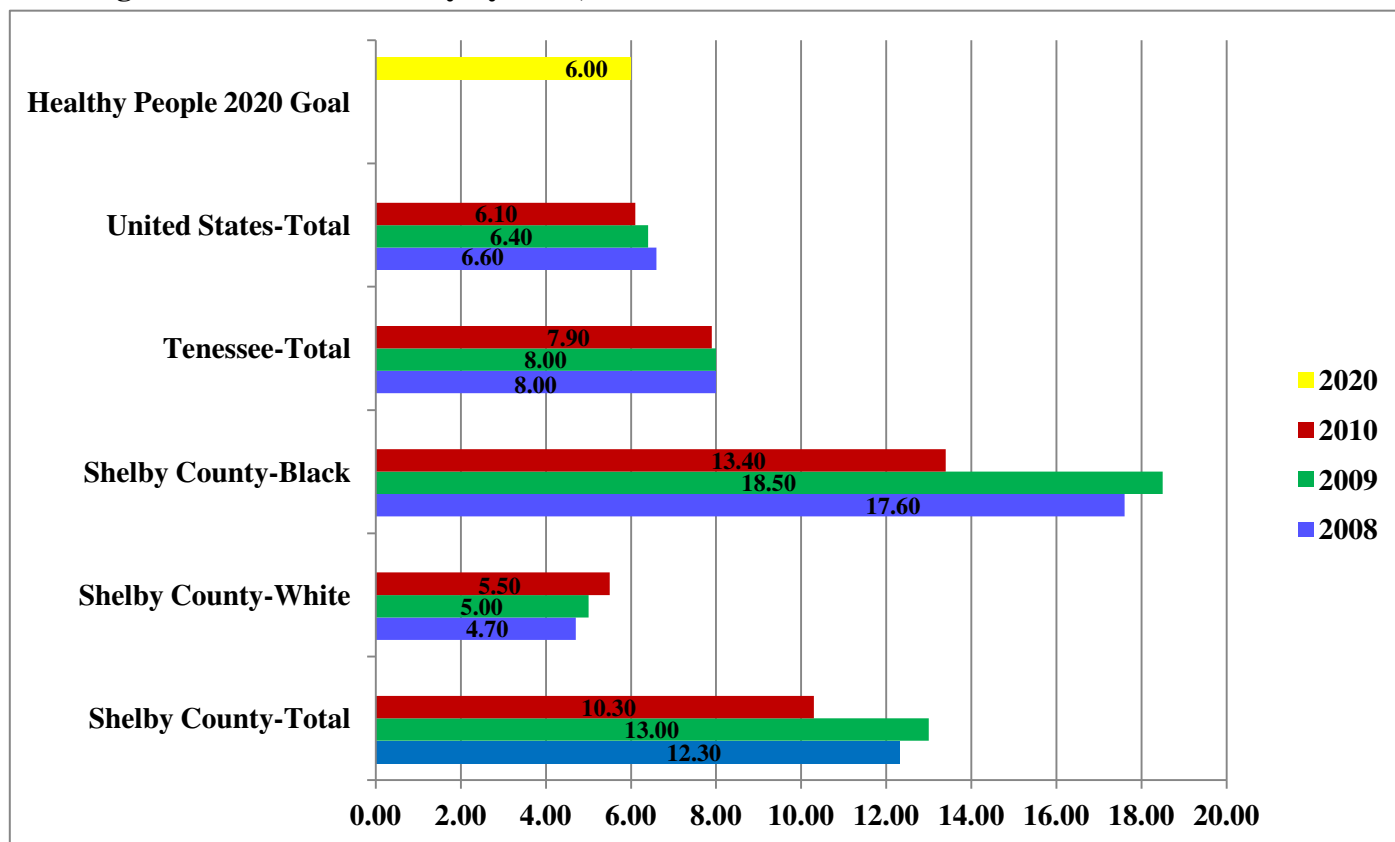
Source: Healthy People 2020

Infant Mortality

In 2010, the infant mortality rate per 1,000 live births was double the national infant mortality rate and almost triple among African Americans (see Figure 25). The Healthy People 2020 goal is for an infant mortality rate of 6.00 per 1,000 live births, 4.30 less than the 2010 infant mortality rate in Shelby County (Healthy People 2020).

In 2011, Shelby County experienced a decline in its infant mortality rate - from 10.3 to 9.6. This decrease represents the lowest infant mortality rate in the County's history (Shelby County Health Department; Commercial Appeal, 2012).

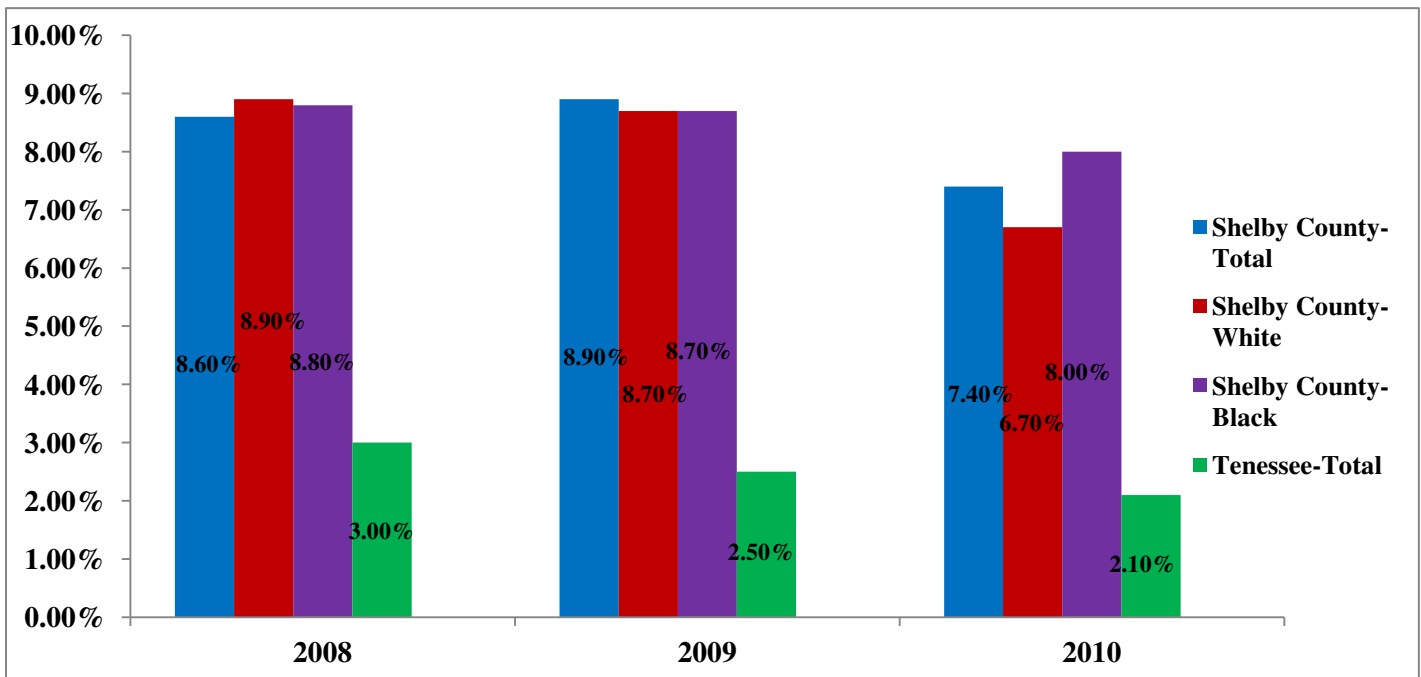
Figure 25: Infant Mortality by Race, 2008-2010



Source: The Urban Child Institute, 2012 & Healthy People 2020

Prenatal care and prenatal screening for women in pregnancy helps to prevent maternal and child death and complications during pregnancy and lower infant mortality rates (World Health Organization). In 2010, 7.4% of pregnant women in Shelby County did not receive prenatal care (The Urban Child Institute). This amount is over 3 times greater than the State percentage and is higher among African American pregnant women (see Figure 26).

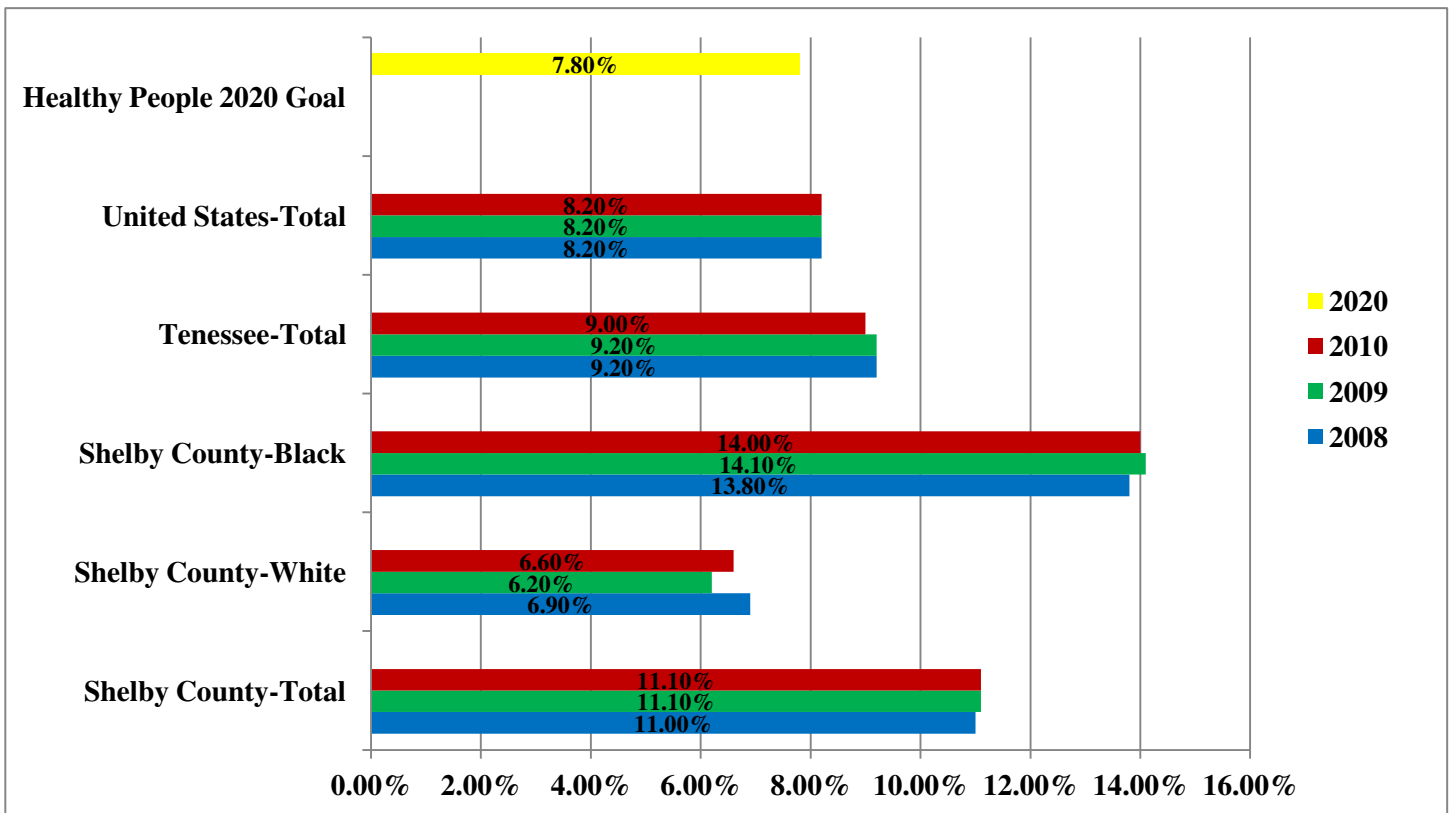
Figure 26: Prenatal Care Percentage by Race, 2010



Source: The Urban Child Institute, 2012

In Shelby County, 11% of babies are born with a low birth weight (The Urban Child Institute). The highest rate of low birth weight births is experienced by children born to African American women; this value is almost 5 percentage points higher than the national rate (see Figure 27).

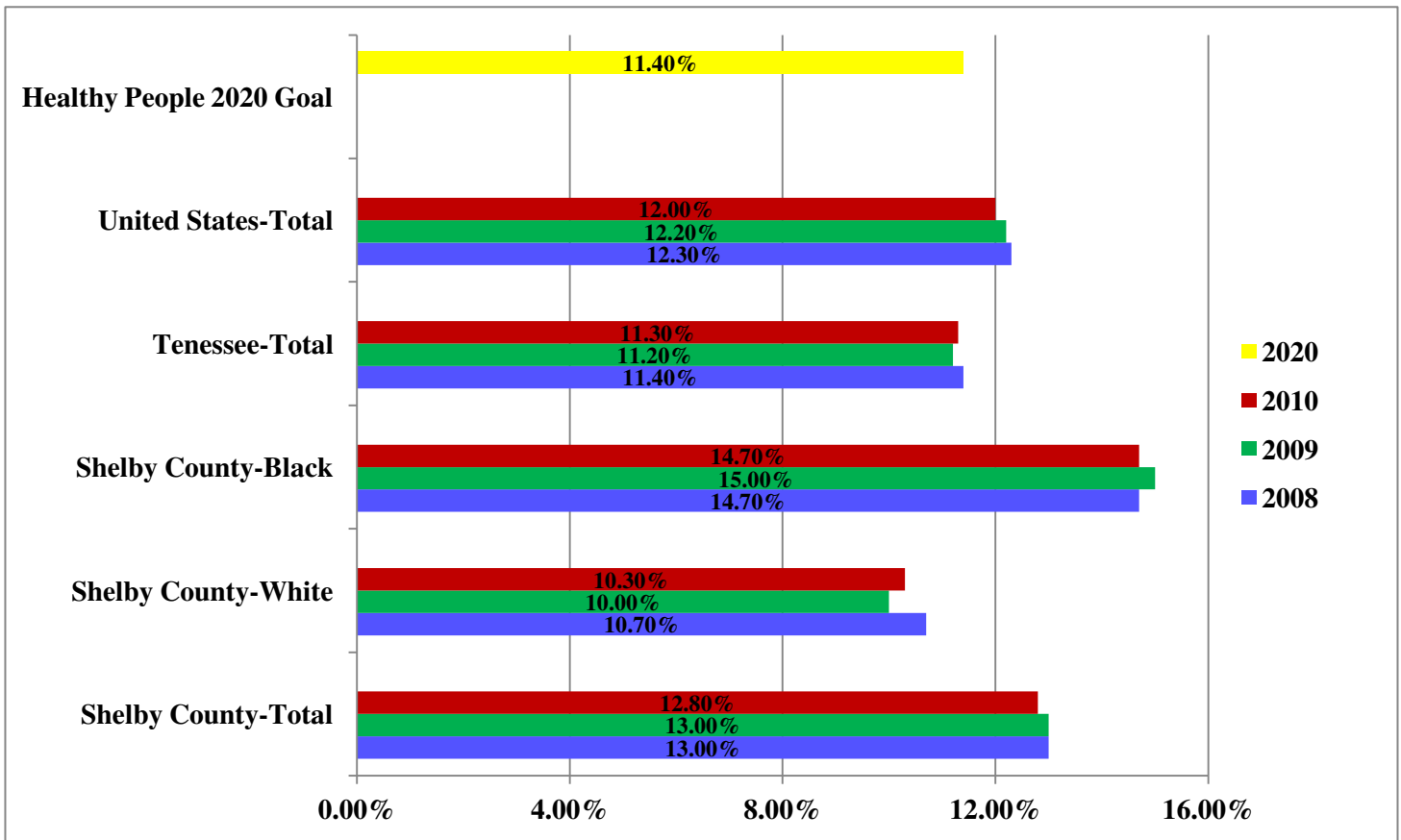
Figure 27: Percent Low Birth Weight by Race, 2008-2010



Source: The Urban Child Institute, 2012 & Healthy People 2020

A contributing factor to the high infant mortality rate is the percent of premature births in Shelby County. While the Shelby County total premature birth rate hovers right around the national and state rates, the rate is close to 4.0 percent higher for babies born to African Americans (see Figure 28).

Figure 28: Percent Premature Birth by Race, 2008-2010



Source: The Urban Child Institute, 2012 & Healthy People 2020

Smoking during pregnancy can cause many birth defects and complications. A 2008 survey found that 7.4% of women who gave birth in Shelby County smoked while pregnant (Tennessee Behavioral Risk Factor Surveillance Survey). This is much lower than the State and national percentage (see Figure 29).

Figure 29: Percentage of Women Who Smoked While Pregnant, 2008

	Shelby County	Tennessee	United States	Healthy People 2020 Goal
Women Who Smoked During Pregnancy	7.40%	19.2%	10.7%	1.40%

Source: Tennessee Department of Health & American Lung Association

Teenage pregnancy is a contributor to both medical and socioeconomic factors that affect the health status of the community. Teen mothers are more likely to have increased high school dropout rates, in addition to increased health problems and higher incarceration rates (The Urban Child Institute). The overall teenage pregnancy rate in Shelby County is 1/3 times greater than the State of Tennessee rate and approximately 2.5 times higher than the U.S. (Birth Statistical System, Tennessee Department of Health). When examining this indicator by race, the rate for Blacks teens for Shelby County is higher than the State and nearly doubles

the rate of the U.S. Conversely, the teen pregnancy rate for White teens in Shelby County is lower than the State of Tennessee (see Figure 30).

Figure 30: Teenage Pregnancy Rate per 1,000 for Shelby County, Tennessee and the U.S.

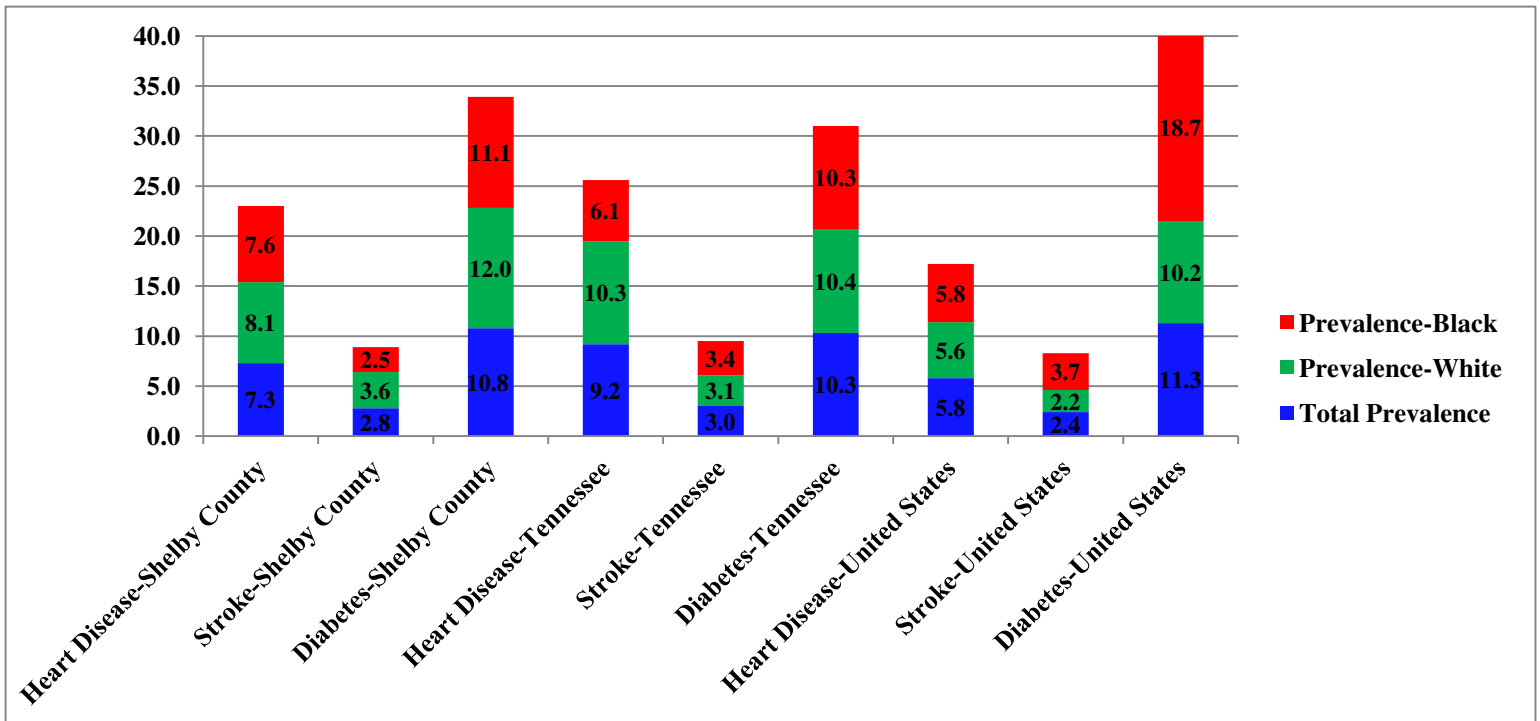
	Shelby County	Tennessee	United States
Teen Pregnancy Rate-Total	90.80	63.40	39.1
Teen Pregnancy Rate-White	43.80	52.40	35.7
Teen Pregnancy Rate-Black	118.20	103.30	59.5

Source: Tennessee Department of Health, Division of Health Statistics, Birth Statistical System, Fetal Death Statistical System, Induced Abortion Statistical System & Healthy People 2020

Chronic Conditions

Shelby County experiences a high level of chronic diseases such as heart disease and diabetes. Both of these diseases can cause strokes, a leading cause of death in Shelby County. The total prevalence for heart disease, stroke and diabetes in Shelby County is 7.3%, 2.8%, and 10.8%, respectively (Tennessee Behavioral Risk Factor Surveillance System). The prevalence rate is higher for white residents than black residents by nearly 1.0% in every category, and both heart disease and stroke prevalence in Shelby County is greater than the national prevalence for these diseases but lower than the State (see Figure 31).

Figure 31: Chronic Disease Prevalence by Race (%), 2009

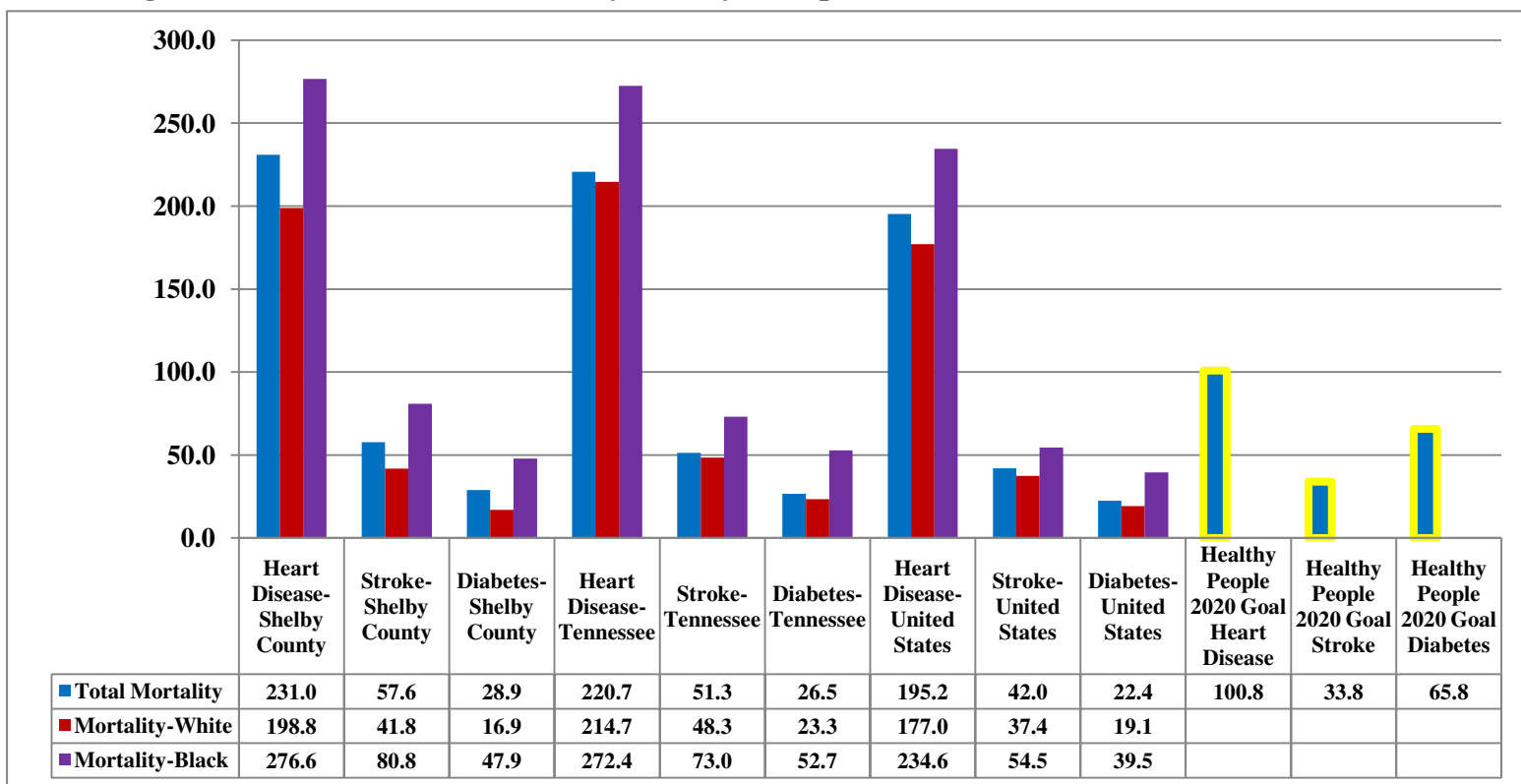


Source: Tennessee Behavioral Risk Factor Surveillance System, 2009, National Diabetes Information Clearinghouse & United States Behavioral Risk Factor Surveillance System, 2009

Although heart disease, stroke, and diabetes are more prevalent among white residents in Shelby County, the mortality rate for these diseases is much higher for Black individuals. The stroke mortality rate for African Americans is nearly double the rate for White residents, and the mortality rate from diabetes is over double

the rate for Whites (Tennessee Behavioral Risk Factor Surveillance System). Further, the mortality rates for heart disease and stroke are greater in Shelby County than the State and the United States (see Figure 32).

Figure 32: Chronic Disease Mortality Rate by Race per 100,000, 2009



Source: Tennessee Death Statistical System; National Vital Statistics Report, 2009 & Healthy People 2020

In 2010, the total number of deaths in Shelby County from heart disease and diabetes totaled 1,997 people, of which 1,762 deaths were from heart disease (Tennessee Department of Health). While the number of deaths from heart disease is higher among White people, the number of deaths from diabetes is still nearly double for Black individuals than White individuals. This trend extends to the State of Tennessee; where over five times the number of Black individuals die from diabetes than White individuals (see Figure 33).

Figure 33: Heart Disease and Diabetes Deaths for Shelby County and States of Tennessee

	Shelby County-Total	Shelby County-White	Shelby County-Black	Tennessee-Total	Tennessee-White	Tennessee-Black
Heart Disease	1,762	898	849	14,489	12,503	1,922
Diabetes	235	89	146	1,678	1,299	370
Total	1,997	987	995	16,167	13,802	2,292

Source: Tennessee Department of Health, Vital Statistics Report

In Shelby County, women experience a greater prevalence of diabetes at 12.30% compared to men at 11.30% (CDC). The prevalence of diabetes for men in Shelby County is lower than the national prevalence, but the prevalence for women is higher in Shelby County than the U.S. (see Figure 34). Tennessee data could not be found.

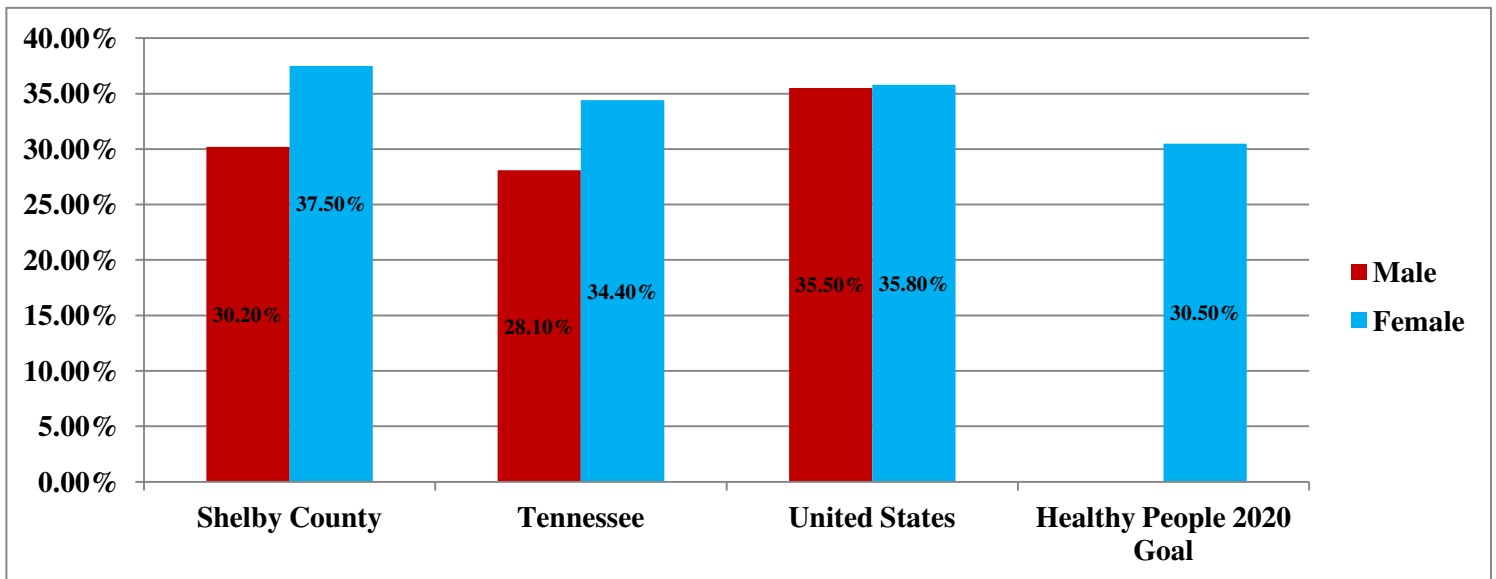
Figure 34: Diabetes Prevalence by Sex for 2009, Shelby County and 2010, United States

	Shelby County-Male	Shelby County-Female	U.S.- Male	U.S.-Female
Diabetes Prevalence	11.30%	12.30%	11.80%	10.80%

Source: CDC, National Diabetes Education Program (<http://ndep.nih.gov/diabetes-facts/index.aspx#gender>),

The prevalence of obesity is higher for males in Shelby County when compared to the State of Tennessee but lower when compared to the prevalence for males in the United States. However, the obesity prevalence for women in Shelby County is worse for women when compared to both the State of Tennessee and the Country (see Figure 35). Further, women in Shelby County experience a higher rate of physical inactivity compared to that of men, 24.9% vs. 31.6% (Centers of Disease Control).

Figure 35: 2009 Obesity Prevalence by Sex for Shelby County, State of Tennessee and United States



Source: CDC, National Center for Health Statistics & National Health and Nutrition Survey, & Healthy People 2020

The City of Memphis experienced a high youth obesity rate of 18.40% (Memphis Youth Behavioral Risk Survey). A total of 35.50% of youths in Memphis are overweight or obese, greater than both the State and the U.S. and 5 times greater than the Health People 2020 goal of 7.90% (see Figure 36).

Figure 36: 2011 Youth Overweight and Obesity Prevalence for Shelby County, State of Tennessee and United States

	Overweight	Obese	Total
City of Memphis	16.80%	18.40%	35.30%
Tennessee	28.30%	15.20%	32.50%
United States	15.2%	13.00%	28.20%
Healthy People 2020 Goal	7.90%		

Source: Memphis Youth Behavioral Risk Survey, Tennessee Youth Behavioral Risk Survey, U.S. Youth Behavioral Risk Survey & Healthy People 2020

High Blood Pressure

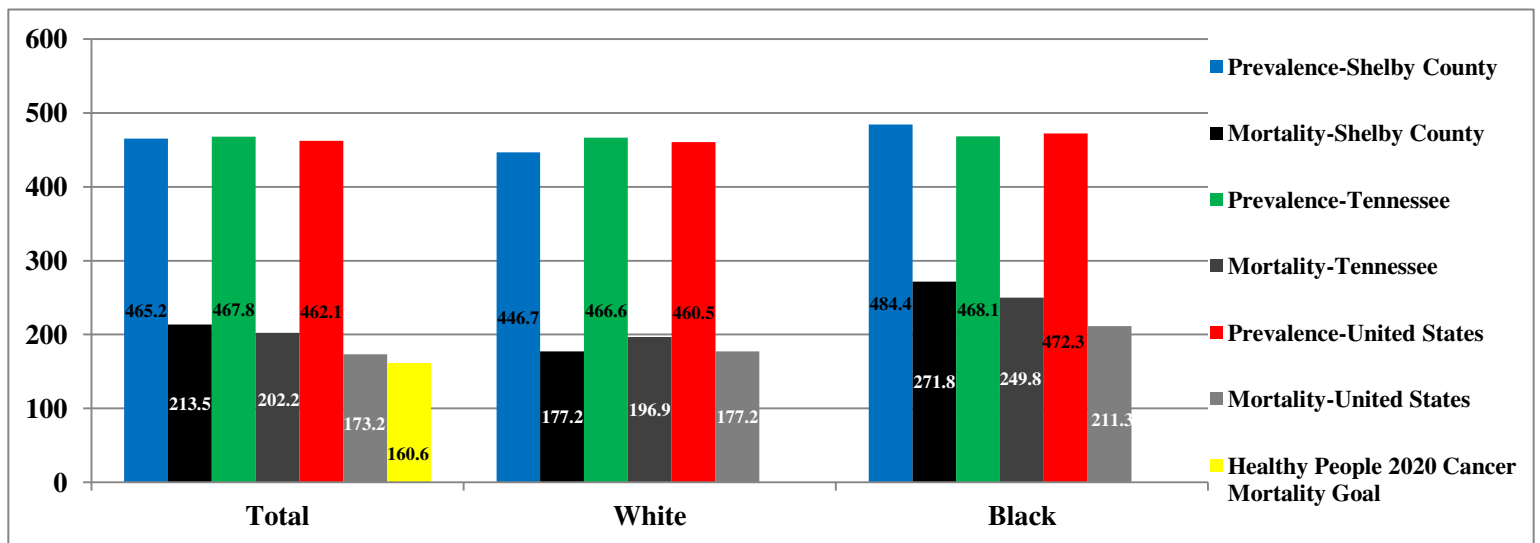
Another health outcome that is prevalent in Shelby County is high blood pressure. Between 2005 and 2009 36.0% of Shelby County residents were diagnosed with high blood pressure compared to 32.2% for the State of Tennessee (Healthy People 2020).

About 9.52% of people in Shelby County have Asthma compared to 9.07% in the State (Tennessee Behavioral Risk Factor Surveillance Survey). This is higher than the national prevalence for asthma.

Cancer Prevalence

Cancer is the second leading cause of death in Shelby County and has a prevalence of 465.7 per 100,000 people (Tennessee Department of Health, Cancer Registry). While the prevalence rates of cancer among White and Black individuals in Shelby County are similar at 446.7 and 484.4 respectively, Black individuals' mortality rates is greater than that of Whites (Tennessee Behavioral Risk Factor Surveillance System). While cancer prevalence rates are similar between Shelby County, the State, and the U.S., cancer mortality rates are much higher in Shelby County than the State and the U.S. (see Figure 37).

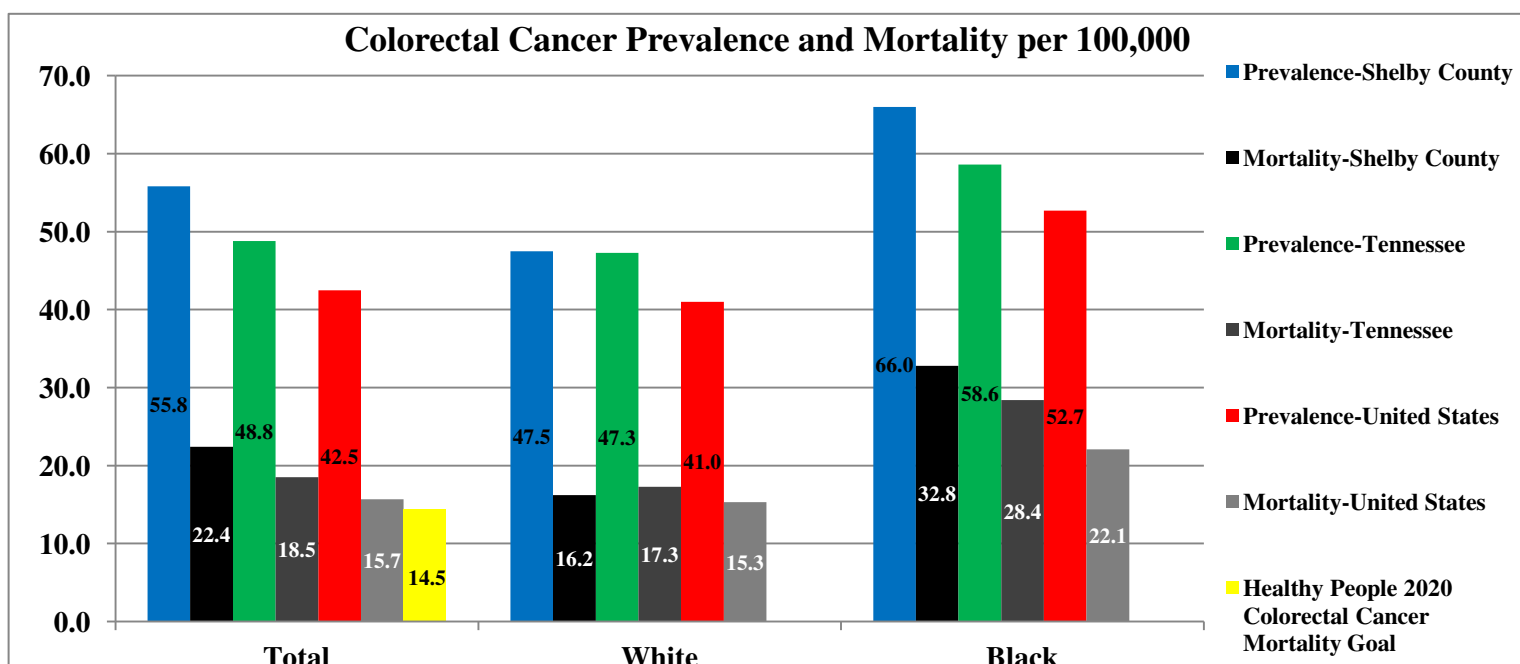
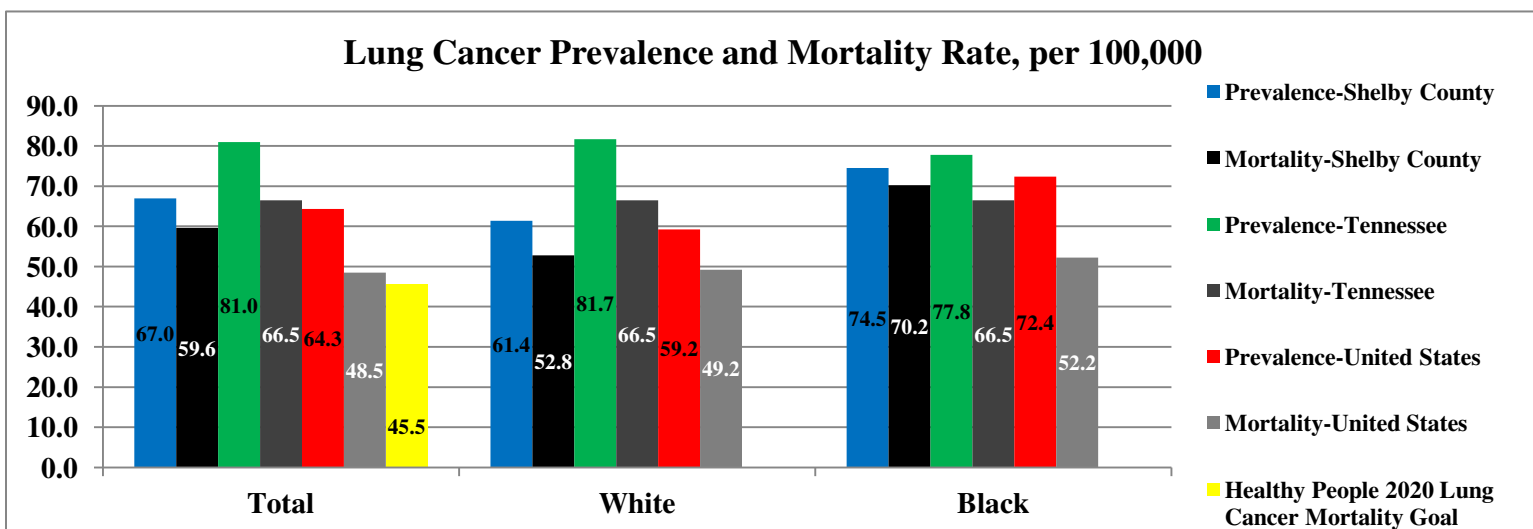
Figure 37: Cancer Prevalence and Mortality rate by Race per 100,000, 2009



Source: Tennessee Department of Health, Office of Cancer Surveillance, Cancer Registry, Kaiser Family Foundation & Healthy People 2020

In Shelby County, lung cancer and colorectal cancer have a prevalence rate of 67.0 and 55.8 with a mortality rate of 59.6 and 22.4 per 100,000 people respectively (Tennessee Department of Health). The prevalence and mortality rates for both of these cancers are higher among Black individuals than White people and in the case of colorectal cancer, the mortality rate among Black individuals is more than double the rate among White individuals (Tennessee Department of Health). Both lung cancer and colorectal cancer prevalence and mortality rates are higher in Shelby County than compared to the total rates of the United States but lower for lung cancer compared to Tennessee (see Figure 38).

Figure 38: Lung Cancer and Colorectal Cancer Prevalence and Mortality Rate per 100,000, 2009



Source: Tennessee Department of Health, National Cancer Institute, CDC, National Center for Health Statistics & Healthy People 2020

Sex-specific cancers such as breast cancer and prostate cancer also have high prevalence rates in Shelby County. If detected early, these cancers can have a high survival rate. In 2010, approximately 17.49% of women 40 years or older in Shelby County had not had a mammogram in two years compared to 22.51% in the State (Tennessee Behavioral Risk Surveillance Survey). Both of these values are better than the national percentage of women over 40 who had not had a mammogram in the last two years (see Figure 39).

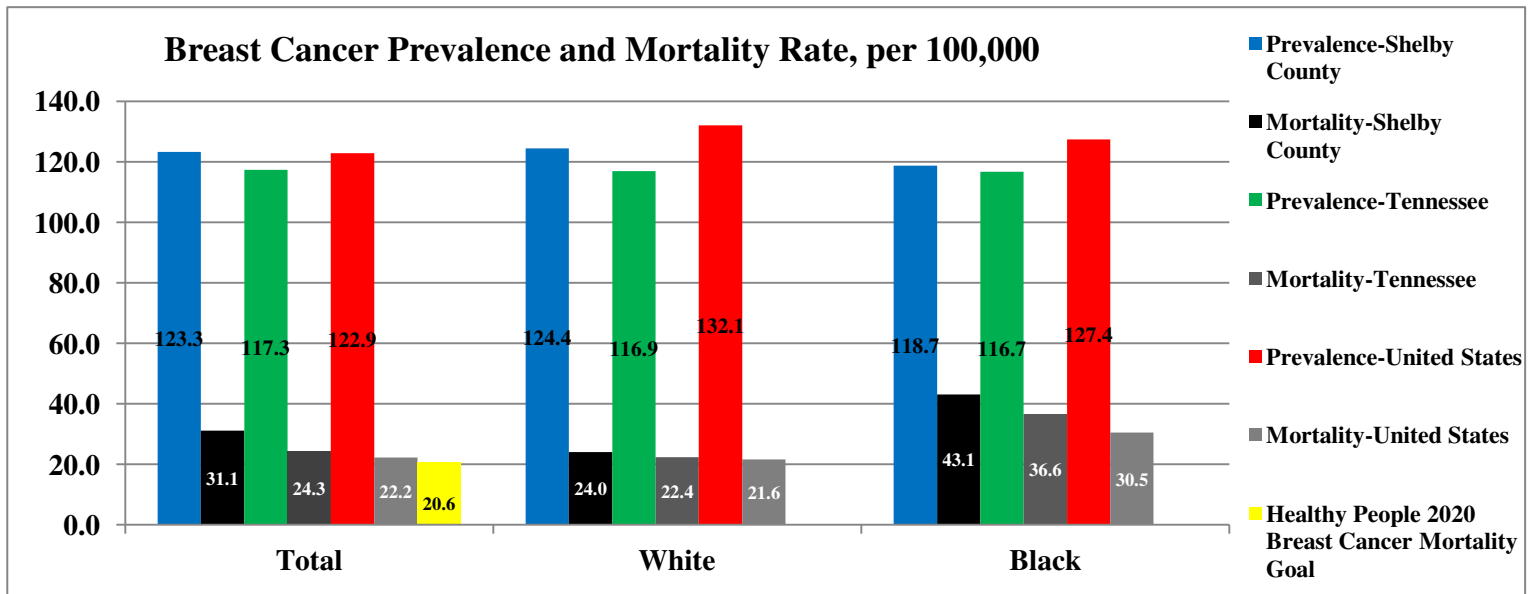
Figure 39: Percent of Women who have not had a Mammogram in 2 Years, 2010

	Shelby County	Tennessee	United States
No Mammogram in the Past Two (2) Years	17.49%	22.51%	24.80%

Source: Tennessee Behavioral Risk Factor Surveillance Survey & U.S. Behavioral Risk Factor Surveillance Survey

Breast cancer has a prevalence of 123.3 per 100,000 and is more prevalent among white women, however, almost double the number of black women die from breast cancer than white women (Tennessee Department of Health). The prevalence of breast cancer in Shelby County is roughly the same as in the State and the United States, but the mortality rates are much higher in Shelby County compared to these areas (see Figure 40).

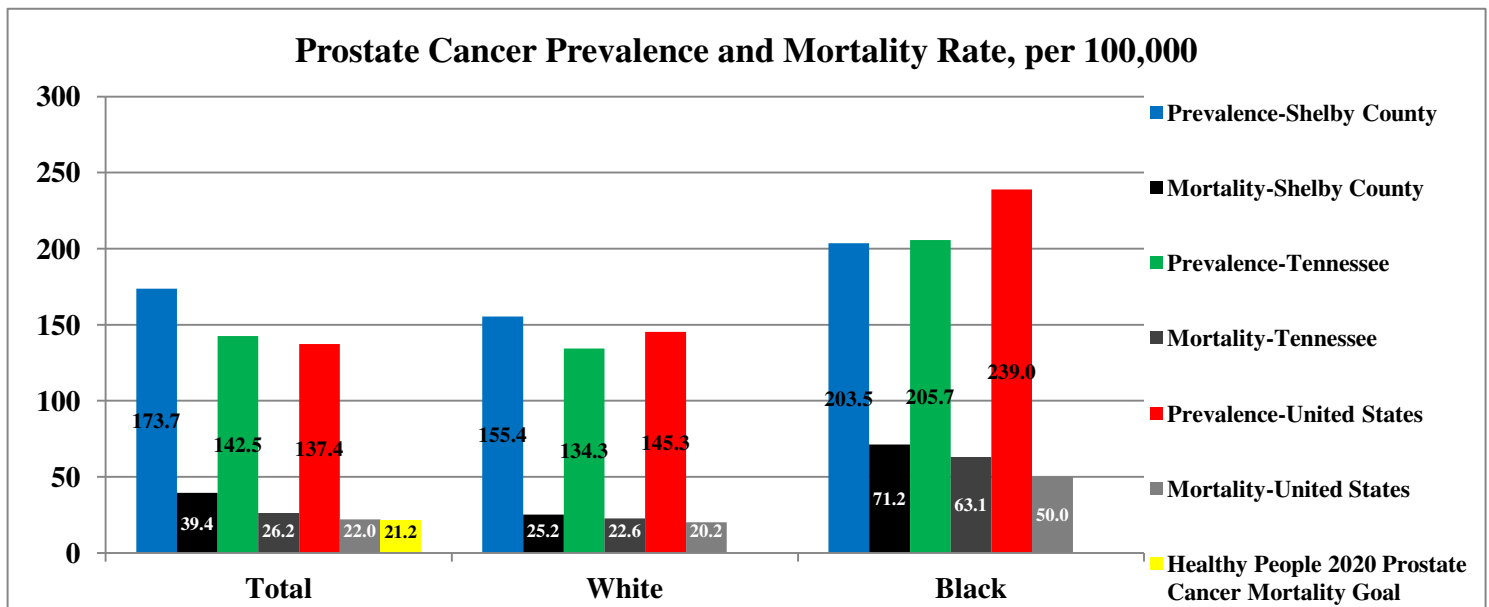
Figure 40: Breast Cancer Prevalence and Mortality Rate per 100,000, 2009



Source: Tennessee Department of Health, Cancer Registry, National Cancer Institute & Healthy People 2020

The prevalence of prostate cancer is 173.7 per 100,000 people, higher than lung cancer, colorectal cancer, and breast cancer (Tennessee Department of Health). The prevalence rate for prostate cancer is highest among black men and the mortality rate of prostate cancer for black men is three times greater than the rate for white men (Tennessee Department of Health). The prevalence rate and mortality rate of prostate cancer is higher in Shelby County than the State and the United States (see Figure 41).

Figure 41: Prostate Cancer Prevalence and Mortality Rate per 100,000, 2009

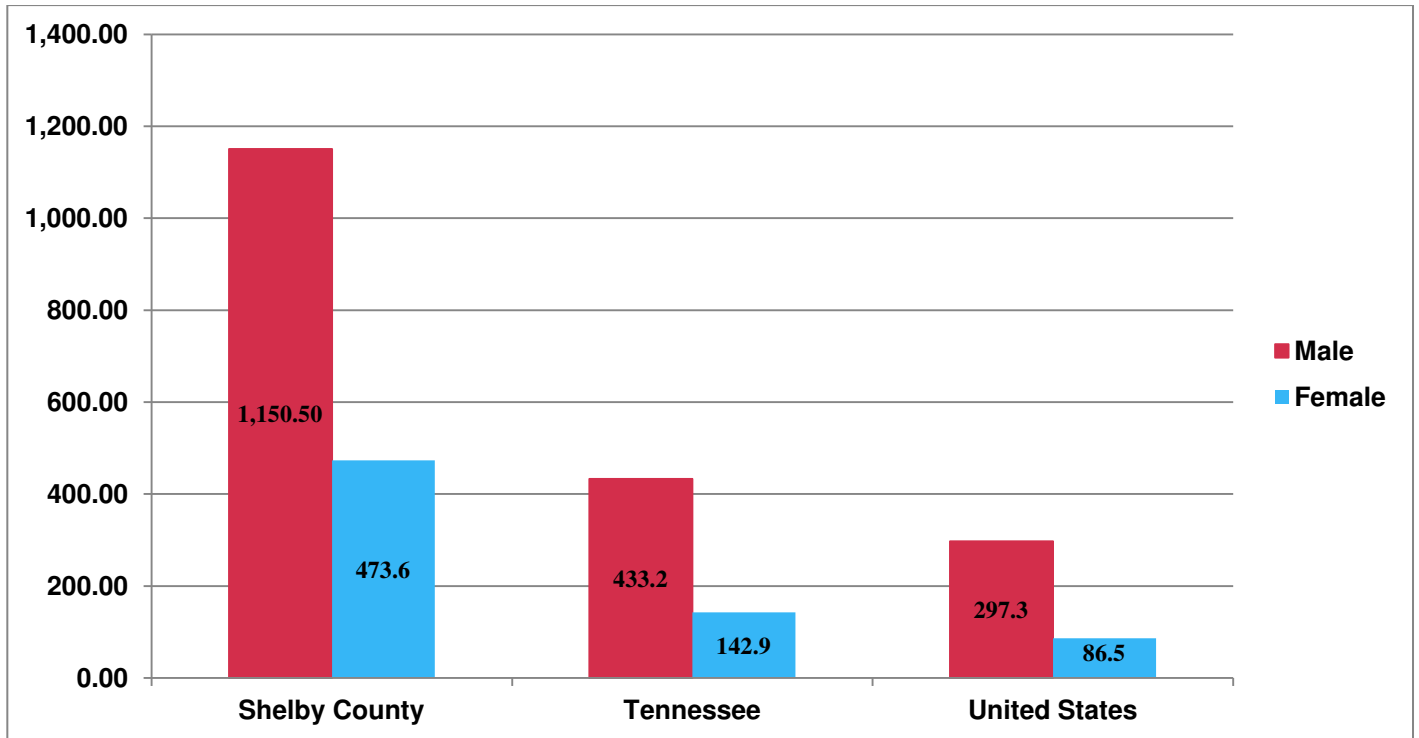


Source: Tennessee Department of Health, Cancer Registry, National Cancer Institute & Healthy People 2020

Infectious Disease

The 2008 HIV prevalence in Shelby County per 100,000 people was 791.8 compared to the state HIV prevalence of 283.0 (Healthy People 2020). This rate is highest among African Americans and males (see Figure 42).

Figure 42: HIV Prevalence per 100,000, 2008



Source: Healthy People 2020; Centers for Disease Control and Prevention

Between 2005 and 2009, the age adjusted HIV death rate in Shelby County was 13.6, over three times the rate of the State which was 4.4 deaths and almost four times the national rate of 3.9 deaths (Healthy People 2020).

In 2009, Hepatitis B and Syphilis were reported in Shelby County at higher than expected cases (CDC, National Notifiable Diseases Surveillance System). See Figure 43

Figure 43: Reported Cases of Hepatitis B, Pertussis and Syphilis, 2009

	Shelby County Expected Cases	Shelby County Reported Cases	Tennessee Reported Cases	United States Reported Cases
Hepatitis B	54	93	136	3,405
Pertussis	163	99	197	16,858
Syphilis	54	130	1,317	44,828

Source: CDC, National Notifiable Diseases Surveillance System

General Health Status Indicators

In a 2009 survey, 16.5% of adults 18 years and older reported that they had fair or poor health and an average of 9 days a month of poor physical health (Tennessee Behavioral Risk Factor Surveillance System). This was better than the State but worse than the United States (see Figure 44). In 2009, 4,046 people in Shelby County died prior to the age of 75, the highest number in the state of Tennessee (Tennessee Department of Health).

Figure 44: Fair or Poor Health and Average days of Poor Physical Health

	Shelby County	Tennessee	United States
% Fair or Poor Health	16.5%	21.3%	9.5%
# Days with Poor Physical Health	9	12.4	3.6

Source: Tennessee Behavioral Risk Factor Surveillance System, 2009 & Healthy People 2020

Risk Behavior Factors

Nutrition and Exercise

Access and consumption of adequate amounts of fruits and vegetables correlates directly with income and education; persons with higher incomes and educational attainment generally maintain healthier eating habits. Similarly, persons with higher incomes engage more often in regular physical activity, as they are more likely to afford health club memberships or the purchasing of home exercise equipment. In 2009, 77.1% of Shelby County residents reported that they consume less than the daily recommended allowance of five (5) servings of fruits and vegetables a day (Figure 45). This percentage is greater than the State of Tennessee and approximately three (3) times greater than the U.S. (Tennessee Behavioral Risk Factor Surveillance System).

Figure 45: Nutrition and Physical Activity

	Shelby County	Tennessee	United States
% Less than 5 servings of Fruits and Vegetables a Day	77.1%	76.7%	23.4%
% Did Not Reach Daily Physical Activity Recommendations	61.4%	64.1%	51.0%

Source: Tennessee Behavioral Risk Factor Surveillance System, 2009, & U.S. Behavioral Risk Factor Surveillance System, 2009

Smoking and Alcohol Consumption

Tobacco use is another health behavior that affects health status. Cigarette use can contribute to health outcomes such as lung cancer, heart disease, and throat cancer. As of 2009 in Shelby County, 14.8% of the population indicated that they were current smokers compared to 22.1% in the State of Tennessee and 19.3% in the United States (Tennessee Behavioral Risk Factor Surveillance System and CDC). The same survey reported that of adults 18 years and older, 2.3% reported heavy drinking and 7.9% reported binge drinking which is higher than the State prevalence of 1.9% and 6.8%, respectively but lower than the United State's prevalence of 4.7% and 15.6%, respectively (Tennessee Behavioral Risk Factor Surveillance System and United States Behavioral Risk Factor Surveillance).

Binge drinking can lead to long term alcoholism, and heavy drinking can cause kidney disease and liver cancer (World Health Organization). A higher prevalence of heavy drinking and binge drinking exists among males while women experience higher prevalence of smoking in Shelby County (see Figure 46). United States data by sex was not readily available.

Figure 46: Shelby County and State of Tennessee Cigarette and Alcohol Prevalence-2009

	Shelby County Total	Shelby County Male	Shelby County Female	Tennessee Total	Tennessee Male	Tennessee Female	United States Total	Healthy People 2020 Goal
Heaving Drinking Prevalence (%)	2.3	3.1	1.6	1.9	2.0	1.9	4.7	N/A
Binge Drinking Prevalence (%)	7.9	9.4	6.5	6.8	9.0	4.6	15.6	N/A
Current Smoker Prevalence (%)	14.8	13.1	16.3	22.1	24.7	19.7	19.3	12.0

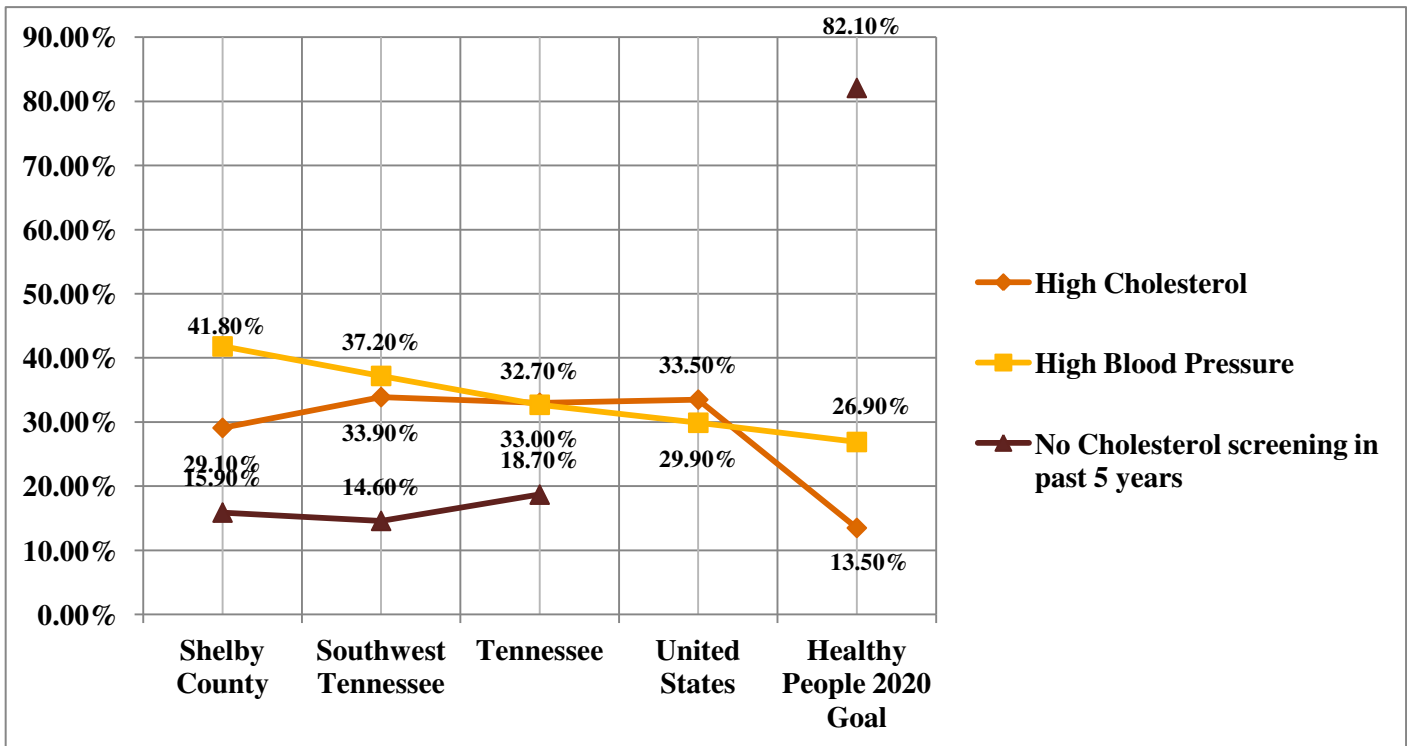
Source: Tennessee Behavioral Risk Factor Surveillance System, 2009, CDC, United States Behavioral Risk Factor Surveillance System, and Healthy People 2020

Health Behaviors

Health behaviors have a strong influence on health outcomes. The more positive a health behavior is, like eating well and exercising regularly, the more positive the health outcomes tend to be. Similarly, the more negative a health behavior is i.e., regular drug use, the more negative the health outcome will be.

Early detection of health issues through regular health screenings can also influence health status. One of these screenings is for high cholesterol and high blood pressure which can cause heart attacks and strokes (World Health Organization). In Shelby County, 29.1% of adults 18 years and older have been told that they have high cholesterol while nearly 15.9% of adults have not received a cholesterol screening in the past five years (Tennessee Behavioral Risk Factor Surveillance System). Both of these values are better than the State percentage and similar to the regional values, however, almost 42% of adults in Shelby County have been told they have high blood pressure, which is higher than both the regional and state values. (Tennessee Behavioral Risk Factor Surveillance System). This value is nearly one and a half times greater than the national value of adults with high blood pressure and all values are higher than the Healthy People 2020 Goals (see Figure 47).

Figure 47: High Cholesterol, High Blood Pressure Prevalence, & Screening Rate-2009



Source: Tennessee Behavioral Risk Factor Surveillance System, 2009, CDC, Division of Heart Disease and Stroke Prevention & Healthy People 2020

Access to Health Care

Access to health care, including non-hospital-based providers, is a critical factor in determining the health status of a community. Additional factors that contribute to access to health care are income, employment, insurance, and availability of primary care providers. In 2009, Shelby County had a primary care physician ratio of 719 residents to 1 provider (County Health Rankings). This is better than the State of Tennessee, but lower than the national benchmark (see Figure 48).

Figure 48: Primary Care Provider Ratio, 2009

Shelby County	719:1
Tennessee	837:1
National Benchmark	631:1

Source: County Health Rankings

Overall, most residents of Shelby County consider one person as their personal health care provider. In a 2010 survey, 91.47% of Shelby County residents responded yes to the question "Do you have one person you think of as your personal doctor or health care provider?" (Tennessee Behavioral Risk Factor Surveillance Survey). This amount is higher than the State percentage and exceeds the Healthy People 2020 goal of 83.9% (see Figure 49).

Figure 49: Percentage of People with Personal Doctor or Health Care Provider in Shelby County and the State of Tennessee

	Shelby County (%)	Tennessee (%)	Health People 2020 Goal
Do you have one person you think of as your personal doctor or health care provider?	91.47%	89.44%	83.90%

Source: Tennessee Behavioral Risk Factor Surveillance Survey, 2010 & Healthy People 2020

Despite Shelby County residents reporting they consider one person as their health care provider, in a more recent 2011 survey, 11.27% of Shelby County residents did not see a doctor when they needed to due to costs (Tennessee Behavioral Risk Factor Surveillance Survey). This value is lower than the State and the United States (see Figure 50).

Figure 50: Percentage of People Reporting Lack of Access to Doctor Due to Costs in Shelby County, State of Tennessee and the U.S.

	Shelby County	Tennessee	United States
Was there a time in the past 12 months when you needed to see a doctor but could not because of cost?	11.27%	15.21%	14.60%

Source: Tennessee Behavioral Risk Factor Surveillance Survey, 2011 & Kaiser Family Foundation

A contributing factor to determining if there is adequate access to care is the availability of health insurance. In 2011, approximately 16.8% of people were uninsured in Shelby County, compared to 14.6% in the State of Tennessee and 15.1% in the U.S. (American Community Survey). The highest rate of uninsured

individuals in Shelby County occurs among adults 18 to 64 years of age while the lowest is among adults 65 years and older (see Figure 51).

Figure 51: Percentage of Population Uninsured in Shelby County, State of Tennessee and the U.S.

	Shelby County	Tennessee	United States
Under 18 Years	6.30%	5.70%	7.50%
Adults 18-64 Years	23.80%	21.00%	21.00%
Over 65 years	0.80%	0.50%	1.00%
Total	16.80%	14.60%	15.10%

Source: American Community Survey, 2011

As a possible consequence of the high rate of uninsured residents, Shelby County leads the State in most inpatient admissions and outpatient discharges with emergency room services, accounting for 18.5% of inpatient admissions and 13.1% of outpatient discharges; over 5.0 percentage points higher than the second ranked county, Davidson (see Figure 52).

Figure 52: Inpatient Admissions and Outpatient Discharges w/Emergency Room Services, 2010

Inpatient Admissions with Emergency Services		
Rank	County	Number
1	Shelby	80,086 (18.60%)
2	Davidson	58,846 (13.70%)
3	Knox	44,191 (10.30%)
4	Hamilton	32,077 (7.40%)
Tennessee Total		430,793

Outpatient Discharges with Emergency Services		
Rank	County	Number
1	Shelby	373,608 (13.10%)
2	Davidson	314,284 (11.00%)
3	Knox	265,939 (9.30%)
4	Hamilton	198,455 (7.00%)
Tennessee Total		2,851,771

Source: Tennessee Department of Health, Office of Health Statistics, Hospital Discharge Data System, 2010

In summary, the overall health status of the community and Shelby County has many opportunities for improvement. Shelby County experiences high rates of infant mortality, chronic disease prevalence and mortality; and health behavior risk factors such as obesity and high cholesterol. The cumulative effect of these factors negatively impacts the future health and well being of the residents of Shelby County; proactive and sustainable strategies are needed to reverse these trends and ensure a healthier community going forward. Shelby County is making progress, and will continue to improve its efforts towards achieving the Healthy People 2020 goals.

Figure 53: Healthy People 2020 Health Indicators Summary

Healthy People 2020 Health Indicators Summary Chart		
Health Indicators	Shelby County Value	Healthy People 2020 Goal
Crime and Death Indicators		
Violent Crime Rate (per 100,000)	1,529.36	399.60
Injury Deaths (per 100,000)	71.8	36.0
Homicide Deaths (per 100,000)	17.3	5.5
Firearm Related Deaths (per 100,000)	20.3	9.2
Pregnancy and Infant Health Indicators		
Infant Mortality	10.30%	6.00%
Low Birth Weight	11.10%	7.80%
Premature Births	11.30%	11.40%
Women Who Smoked During Pregnancy	7.40%	1.40%
Teenage Pregnancy Rate (per 1,000)	90.80	32.6
Chronic Disease Indicators		
Heart Disease Mortality (per 100,000)	231.00	100.80
Stroke Mortality (per 100,000)	57.60	33.80
Diabetes Mortality (per 100,000)	28.90	65.80
Adult Obesity Prevalence	33.60%	30.50%
Youth Obesity Prevalence	18.40%	7.90%
High Cholesterol Prevalence	29.10%	13.50%
High Blood Pressure Prevalence	41.80%	26.90%
No Cholesterol Screen in Past 5 Years	15.90%	17.90%
Infectious Disease Indicators		
HIV Death Rate (per 100,000)	13.80	3.3
Cancer Indicators		
Overall Cancer Mortality (per 100,000)	213.50	160.60
Lung Cancer Mortality	59.60	45.50
Colorectal Mortality	22.40	14.50
Breast Cancer Mortality	31.30	20.60
Prostate Cancer Mortality	39.40	21.20
Healthcare Access Indicators		
One person as Health Care Provider	91.47%	83.90%
Uninsured Population	16.80%	0.00%
Primary Care Provider Ratio	719:1	631:1

Source: Healthy People 2020

SECTION VI - COMMUNITY SURVEYS

In an effort to gather information from the people who live within the community, a telephone survey was conducted. The survey aimed to gain insight on the community’s socioeconomic factors of health, access to healthcare, and their perception of overall health status. The survey also gathered basic demographic information from participants. Overall, 122 surveys were conducted. Participants in the survey were able to discontinue participating at any point and could also choose to not answer questions if they did not feel comfortable doing so.

Sixty percent of respondents were female, with 53% over the age of 65. A majority of participants (69%) were black compared to 24% who were white. A full breakdown of the demographic information collected can be seen in Figure 54 below:

Figure 54: Demographic Breakdown

Gender	
Male	40%
Female	60%
Age	
18-24	3%
25-34	1%
35-44	7%
45-54	16%
55-64	20%
65-74	28%
75-84	19%
85+	6%
Race	
White	24%
Black	69%
Hispanic	3%
Other	3%
Marital Status	
Single	31%
Married	28%
Separated	3%
Divorced	16%
Widowed	22%

Source: Community Surveys

Health Insurance Coverage

Eighty-four percent of participants indicated they have health insurance coverage. Of those covered, 38% have commercial insurance and 50% have either TennCare/Medicaid or Medicare. For those participants who indicated that they do not have health insurance, the most noted reasons were unemployment or inability to pay for coverage.

Prescription Drugs

Ninety-two percent of participants indicated no difficulties in receiving needed prescriptions in the past 12 months. For those participants who indicated they were unable to receive needed prescriptions, the most noted reasons were lack of acceptance of their prescription drug insurance or inability to afford co-pay (see Figure 55).

Figure 55: Health Insurance Breakdown

Health Insurance	
Yes	84%
No	16%
Type of Insurance	
Commercial (BCBS, Aetna, Cigna, etc.)	38%
TennCare/Medicaid	37%
Medicare	10%
Other (Includes VA Insurance)	10%
Reason for Lack of Insurance	
Unemployment	42%
Inability to pay	42%
No longer qualify for TennCare/Medicaid	8%
Other (No Explanation)	8%
Difficulty Getting Prescriptions in Past 12 Months	
Yes	8%
No	92%
Reason for Difficulty Getting Prescriptions	
Lack of Prescription Drug Coverage	20%
Pharmacy doesn't accept type of insurance	40%
Inability to Afford Co-Pay	40%
Problems Receiving Health Services Needed	
Yes	7%
No	78%
N/A	14%

Source: Community Surveys

Health Status/Access

Seventy-one percent of participants noted that their overall health either very good or fair. Regarding access to services, 82% of participants indicated they have received a general health exam in the past 12 months, with 86% receiving an exam in the past five (5) years. For those participants who noted they did not receive a general exam in the past 12 months, the most common reasons were either lack of transportation or lack of need for an exam due to good health status.

Physical Activity/BMI

Eighty-one percent of respondents have a body mass index (BMI) range of 25.0-30.0, which classifies them as either overweight or obese. A healthy BMI range ranges from 21.4 to 24.9 (Centers for Disease Control and Prevention).

Figure 56: General Health Status

Overall Health	
Excellent	11 %
Very Good	35 %
Fair	36 %
Poor	12 %
Very Poor	6 %
General Health Exam in Past 12 Months	
Yes	82 %
No	18 %
General Health Exam in Past 5 Years	
Yes	86 %
No	14 %
Days a week of Physical Activity	
0 Days	34 %
1-2 Days	23 %
3-4 Days	20 %
5+ Days	23 %
BMI Range	
Underweight (<18.5 BMI)	1.45 %
Normal (15.8-24.9 BMI)	17.39 %
Overweight (25.0-29.9 BMI)	34.78 %
Obese (>30.0 BMI)	46.38 %

Source: Community Surveys

Neighborhood Safety

Ninety-one percent of participants noted they own their home or rent, with 1% having received housing assistance in the past 12 months. Approximately 20% of survey participants indicated they did not feel safe where they lived, primarily because of high crime rates and drug activity. The most common issues noted regarding neighborhoods were the lack of sidewalks or sidewalks were not clean enough to use for physical activity.

Social Services/Assistance

Twelve percent of respondents indicated having received help with rent, food or utilities in the past 12 months after a personal emergency, and 8% have received help with transportation, child care, or after school care in the past 12 months.

Twenty-one percent of survey participants indicated they are the primary caregiver for another individual. Twelve percent of caregivers noted not having adequate financial resources to cope with their caregiver responsibilities. Additionally, 12% of caregivers noted not having adequate family support to cope with their caregiver responsibilities. Eighteen percent of caregivers indicated not having adequate respite care services available.

SECTION VI - KEY STAKEHOLDER INTERVIEWS

Key stakeholder interviews were conducted as part of the CHNA as a primary gathering tool. Per the IRS Notice, RMCM took into account input from various individuals with special knowledge and/or expertise in public health; persons representing agencies with data relevant to the healthcare needs of the community, including an assessment of the overall health status in the community, access to healthcare services, health disparities and the healthcare needs of vulnerable and medically underserved populations, including specifically the aged, those with chronic diseases such as diabetes, and faith-based organizations representing the poor and other demographic groups.

RMCM officials identified 22 external stakeholders (of which 18 were interviewed) as a part of this process. Interview participants were asked to share their perspectives and professional opinions on the following topics:

- Description of the overall health status of the community
- Contributing factors to the community's health status
- Gaps or unmet needs in health services available to the community
- Barriers to accessing health services in the community
- Obstacles that exist to overcoming the identified barriers to access
- RMCM's role, programs or services provided to improve the community's health status
- Strength of services provided by RMCM
- Collaborative opportunities for improving the community's health status
- New or expanded programs and services aimed at improving overall health status

Health needs identified as priorities by the community input included the following, based on the incidence of the diseases or health outcomes, their severity, and their overall impact on the community's health.

KEY STAKEHOLDER EXTERNAL INTERVIEW FINDINGS

Description of Community Health Status and Contributing Factors

The majority of key stakeholder interview participants described the health status of the community as poor. There were several reasons or factors given as contributors to this view; both poverty and low economic status were identified as the greatest contributors. Additionally, other factors noted that contributed to the health status being deemed "poor" were the high prevalence of chronic diseases - specifically, diabetes, hypertension, cardiovascular diseases and HIV/AIDS. Participants strongly noted that the aforementioned chronic diseases' prevalence was a direct result of the high rates of obesity in the community.

Gaps and/or Unmet Needs

The most frequently mentioned health services gap or unmet need in the community is primary care providers for the uninsured and underinsured. This gap is perceived to lead to a high and inappropriate use of the area's emergency rooms. Also, the lack of transportation for the uninsured; mental health services and chronic disease management for the uninsured were noted as great unmet health services needs.

Barriers to Accessing Health Care Services

The most frequently mentioned barrier for access to health care services was the lack of health insurance coverage and/or funding for purchasing health services. This noted barrier was also mentioned as a contributing factor to the community's health status description as "poor". An insufficient number of health services providers who accept TennCare/Medicaid and the lack of transportation were also noted as major barriers to accessing health services.

Opportunities for RCMC to Improve the Community's Health Status

An increased primary care presence at the neighborhood level was the most frequently mentioned opportunity for RCMC. Participants acknowledged RCMC's current Health Loop Clinics, and felt that these clinics needed to be expanded, both programmatically and in number of locations. Additionally, other opportunities mentioned included an expanded community outreach presence, with a specific focus on health education on chronic disease management.

Opportunities for Overall Improvement of the Community's Health Status

Overwhelmingly, the most frequently noted overall opportunity to improve the community's health status is an increased collaboration between stakeholders - specifically health care providers, academia, businesses and the faith community. Participants all noted that the responsibility of improving the community's health status is not just that of hospitals; everyone has a stake in ensuring that the community is healthy, thriving and growing.

Details regarding the findings of the key stakeholder interviews are located in Appendix V.

APPENDICES

APPENDIX I -KEY STAKEHOLDER INTERVIEW PARTICIPANTS

Name	Organization	Title	Expertise
Internal (RMC) Interview Participants			
Teresa Bancroft	Regional Medical Center at Memphis	Manager, Decision Support	Healthcare Finance
Marye Bernard	Regional Medical Center at Memphis	Director, Adult Special Care	HIV/AIDS
Judy Briggs	Regional Medical Center at Memphis	Coordinator, Charity Care	Healthcare Reimbursement
Susan Cooper	Regional Medical Center at Memphis	Population Health Consultant/Former Health Commissioner	Population Health Management
Linda Dabaer	Regional Medical Center at Memphis	Coordinator, NICU Social Services	Women's/Children's Services
Patricia Adams-Graves, M.D.	Regional Medical Center at Memphis	Director, Sickle Cell Services	Sickle Cell
Bettye Givens	Regional Medical Center at Memphis	Coordinator, NICU Community Outreach	Women's/Children's Services
Denise Headin	Regional Medical Center at Memphis	Coordinator, Trauma Outreach and Injury Prevention	Trauma and Burn
Patrick Malone, M.D.	Regional Medical Center at Memphis	Chief Health Officer, Health Loop Clinics	Internal Medicine/ Health Administration
Keith Morrow	Regional Medical Center at Memphis	Director, Outpatient Center Operations	Ambulatory Care Administration
Bret Perisho	Regional Medical Center at Memphis	Vice President, Business Development	Healthcare Finance
Johnnie Shipp	Regional Medical Center at Memphis	Director, Case Management	Nursing/Case Management
Kelly Smith	Regional Medical Center at Memphis	Manager, NICU	Women's/Children's Services
Robert Sumter, Ph.D.	Regional Medical Center at Memphis	Chief Operating Officer/Chief Information Officer	Health Information Technology/Administration
Susan Towler	Regional Medical Center at Memphis	Manager, Social Services	Medical Social Services
Tish Towns	Regional Medical Center at Memphis	Senior Vice President, External Affairs	Healthcare Administration

NAME	ORGANIZATION	TITLE	EXPERTISE
External Interview Participants			
Michael Allen	Catholic Health Charities of West Tennessee	President	Faith-based Health Initiatives
David Archer	Saint Francis Health Care	President and Chief Executive Officer	Healthcare Administration
John Carroll	American Diabetes Association	Director	Healthcare/Non Profit Administration
Clarence Davis, M.D.	Blue Cross/Blue Shield	Vice President, Government Business	Healthcare Reimbursement
Renee Frazier	Healthy Memphis Common Table	Chief Executive Officer	Population Health Management/Administration
Micah Greenstein	Temple Israel	Senior Rabbi	Faith-based Initiatives
Peg Thorman-Hartig, M.D.	University of Tennessee Health Science Center	Chair, Department of Primary Care	Primary Care
Willeen Hastings	Memphis Health Center	Chief Executive Officer	Healthcare Administration/FQHCs
Dora Ivey	Aging Commission of the Mid South	Director	Geriatrics/Non Profit Administration
Satish Kedia, M.D.	University of Memphis School of Public Health	Director	Public Health
Melanie Keller	Meritan, Inc.	Executive Director	Non Profit Administration
Lisa Klesges, M.D.	University of Memphis School of Public Health	Dean	Public Health
Keith McGhee	Saint Mark's Missionary Baptist Church	Pastor	Faith-based Initiatives
Steve Reynolds	Baptist Memorial Health Care	President and Chief Executive Officer	Healthcare Administration
Kenneth Robinson, M.D.	Shelby County Office of Health	Advisor to Mayor	Healthcare Administration/Internal Medicine
Craig Strickland	Hope Presbyterian Church	Senior Pastor	Faith-based Initiatives
Eric Winston	Mt. Zion Church	Pastor	Faith-based Initiatives
Jan Young	Assisi Foundation	Executive Director	Healthcare Administration/Non Profit

APPENDIX II - SECONDARY QUANTITATIVE DATA SOURCES

DATA TYPE	SOURCE	DATA YEAR(s)
Population Estimates	RMCM Internal Data (ERSI Business Information Solutions)	2012
Educational Attainment	U.S. Census Bureau, American Community Survey	2009-2011
Household Income	RMCM Internal Data (ERSI Business Information Solutions)	2012
Median Household Income Change	Thompson Reuters	2012
Shelby County Uninsured Population	Shelby County Health Department	2011
Annual Unemployment Rates	U.S. Bureau of Labor Statistics	2007-2012
Shelby County Total Labor Force	Tennessee Department of Labor	2012
Families Living in Poverty	U.S. Bureau of Census; The Urban Child Institute	2010; 2012
Percentage of Children Living in Poverty	The Urban Child Institute; U.S. Census Bureau	2012; 2010
Percentage of Residents Underinsured	Shelby County Health Department; Tennessee Behavioral Risk Factor Surveillance System	2009
Estimated Count of Homeless in Shelby County	Department of Housing and Urban Development	2008
Violent Crime Rate per 100,000	Federal Bureau of Investigation; Healthy People 2020	2011; 2010
Ranking in Health Factors, Health Behaviors and Health Outcomes	County Health Rankings	2011
Emergency Room Inpatient and Outpatient Admissions/Discharges	Tennessee Department of Health, Office of Health Statistics, Hospital Discharge Data System	2010
Percent Less than 5 Servings of Fruits and Vegetables a Day	Tennessee Behavioral Risk Factor Surveillance System	2009
Percentage of Residents Reporting Fair or Poor Health	Tennessee Behavioral Risk Factor Surveillance System	2009
Number of Days with Poor Physical Health	Tennessee Behavioral Risk Factor Surveillance System	2009
Age-adjusted Adult Obesity Rates	Healthy People 2020	2010
Obesity and Overweight Prevalence in Shelby County, Southwest Tennessee and State of Tennessee	Tennessee Behavioral Risk Factor Surveillance System; Centers for Disease Control National Health and Nutrition Survey	2009; 2009-2010
Percentage of Adults 18+ Who Have Been Told They Have High Cholesterol	Tennessee Behavioral Risk Factor Surveillance System	2009
Percentage of Adults 18+ Without Cholesterol Screening in Past 5 Years	Tennessee Behavioral Risk Factor Surveillance System	2009
Percentage of Adults 18+ Who Have Been Told They Have High Blood Pressure	Tennessee Behavioral Risk Factor Surveillance System; Healthy People 2020	2009; 2010
Percentage of Current Smokers in Shelby County	Tennessee Behavioral Risk Factor Surveillance System	2009
Percentage of Adults 18+ Who Are Heavy Drinkers	Tennessee Behavioral Risk Factor Surveillance System	2009
Percentage of Adults 18+ Who Are	Tennessee Behavioral Risk Factor Surveillance	2009

Binge Drinkers	System	
Top 10 Age-Adjusted Leading Causes of Death in Shelby County	Tennessee Department of Health, Death Statistical System	2007-2009
Prevalence of Heart Disease	Tennessee Department of Health, Death Statistical System	2009
Prevalence of Stroke	Tennessee Department of Health, Death Statistical System	2009
Prevalence of Diabetes	Tennessee Department of Health, Death Statistical System	2009
Percentage of Adults 18+ With Diabetes	Healthy People 2020	2010
Chronic Disease Mortality Rates by Race	Tennessee Department of Health, Death Statistical System	2009
Heart Disease Deaths by Race	Tennessee Department of Health, Vital Statistics	2010
Diabetes Deaths by Race	Tennessee Department of Health, Vital Statistics	2010
Cancer Prevalence and Mortality by Race	Tennessee Department of Health, Cancer Registry; Kaiser Family Foundation	2009
Lung Cancer Prevalence and Mortality Rate	Tennessee Department of Health, Cancer Registry;	2009
Colorectal Cancer Prevalence and Mortality Rate	Tennessee Department of Health, Cancer Registry;	2009
Breast Cancer Prevalence and Mortality Rate	Tennessee Department of Health, Cancer Registry;	2009
Prostate Cancer Prevalence and Mortality Rate	Tennessee Department of Health, Cancer Registry;	2009
Deaths Per 100,000 (All Causes)	Healthy People 2020	2010
Injury, Homicide and Firearm Related Deaths per 100,000 for Persons <18	Healthy People 2020	2010
Infant Mortality by Race	The Urban Child Institute	2012
Prenatal Coverage Percentage by Race	The Urban Child Institute	2012
Percent Low Birth Rate by Race	The Urban Child Institute	2012
Percent Premature Birth Rate by Race	The Urban Child Institute	2012
Teenage Pregnancy Rate by Race	Tennessee Department of Health, Birth Statistical System; Healthy People 2020	2009; 2010
HIV Prevalence per 100,000	Healthy People 2020	2010
Age-adjusted HIV Death Rate, Shelby County	Healthy People 2020	2010

APPENDIX III - SERVICE AREA HOUSEHOLD INCOME

Household Income	Service Area Number of Households-2011	Service Area Percent of Total Households-2011	Service Area Number of Households-2016	Service Areas Percent of Total Households 2016	Percent Change
\$ 0 - \$ 14,999	43,992	22.03%	42,258	21.41%	-3.94%
\$ 15,000 - \$ 24,999	29,466	14.75%	22,798	11.55%	-22.63%
\$ 25,000 - \$ 34,999	26,830	13.43%	22,572	11.44%	-15.87%
\$ 35,000 - \$ 49,999	31,816	15.93%	29,922	15.16%	-5.95%
\$ 50,000 - \$ 74,999	32,433	16.24%	40,967	20.75%	26.31%
\$ 75,000 - \$ 99,999	16,568	8.30%	20,842	10.56%	25.80%
\$100,000 - \$149,999	10,824	5.42%	12,099	6.13%	11.78%
\$150,000 - \$199,999	5,059	2.53%	3,027	1.53%	-40.17%
\$200,000 +	2,718	1.36%	2,908	1.47%	6.99%
Total	199,706	100%	197,393	100%	-1.16%

Source: RCMC Internal Data, ESRI Business Solutions, October 19, 2012

Household Income	Tennessee Number of Households-2011	Tennessee Percent of Total Households-2011	Tennessee Number of Households-2016	Tennessee Percent of Total Households 2016	Percent Change
\$ 0 - \$ 14,999	405,463	15.98%	395,474	15.10%	-2.46%
\$ 15,000 - \$ 24,999	324,944	12.81%	262,845	10.03%	-19.11%
\$ 25,000 - \$ 34,999	304,644	12.01%	266,717	10.18%	-12.45%
\$ 35,000 - \$ 49,999	396,420	15.62%	384,191	14.67%	-3.08%
\$ 50,000 - \$ 74,999	470,939	18.56%	598,790	22.86%	27.15%
\$ 75,000 - \$ 99,999	270,754	10.67%	325,163	12.41%	20.10%
\$100,000 - \$149,999	200,348	7.90%	235,643	9.00%	17.62%
\$150,000 - \$199,999	100,001	3.94%	78,995	3.02%	-21.01%
\$200,000 +	64,101	2.53%	71,505	2.73%	11.55%

Total	2,537,614	100%	2,619,323	100%	3.22%
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Source: RCMC Internal Data, ESRI Business Solutions, October 19, 2012

Household Income	U.S. Number of Households-2011	U.S. Percent of Total Households-2011	U.S. Number of Households-2016	U.S. Percent of Total Households 2016	Percent Change
\$ 0 - \$ 14,999	15,030,658	12.68%	14,593,581	12.03%	-2.91%
\$ 15,000 - \$ 24,999	13,016,406	10.98%	10,338,313	8.52%	-20.57%
\$ 25,000 - \$ 34,999	12,477,834	10.53%	10,148,856	8.37%	-18.66%
\$ 35,000 - \$ 49,999	17,014,425	14.36%	15,214,531	12.54%	-10.58%
\$ 50,000 - \$ 74,999	21,877,939	18.46%	24,945,487	20.56%	14.02%
\$ 75,000 - \$ 99,999	14,298,288	12.06%	18,030,358	14.86%	26.10%
\$100,000 - \$149,999	13,354,776	11.27%	16,051,881	13.23%	20.20%
\$150,000 - \$199,999	6,523,650	5.50%	6,209,848	5.12%	-4.81%
\$200,000 +	4,917,827	4.15%	5,778,053	4.76%	17.49%
Total	118,511,803	100%	121,310,908	100%	2.36%

Source: RCMC Internal Data, ESRI Business Solutions, October 19, 2012

APPENDIX IV – COMMUNITY HEALTH ORGANIZATIONS IN MEMPHIS

Healthy Memphis Common Table	Help to improve the quality of health care, Fight obesity, empower patients and caregivers, reduce chronic diseases, and reduce food deserts in low income areas	Memphis Area	Memphis	6027 Walnut Grove Plaza 2, Suite 215, Memphis TN 38120
Memphis Health Center	Primary/preventative care medically and orally, On, prenatal, immunizations, pharmacy etc (20+ services)	Shelby County and Fayette County, TN	Citizens of Shelby and Fayette County	360 East E H Crump Boulevard Memphis, TN 38126
Catholic Health Charities of West Tennessee	immigration services, emergency services, mobile food/clothes pantry services, homeless services	West Tennessee	West Tennessee	1325 Jefferson Avenue Memphis, TN 38104
United Way of the Mid-South		Mid-South	Underserved, uninsured, underinsured individuals in need	6775 Lenox Center Court Suite 200 Memphis, TN 38115
Aging Commission of the Mid-South	Adult day care, adult sitter, caregiver information, food supplements, home delivered meals, home maker services, legal assistance (15+ services)	Mid-South	Elderly and aging (those over 60 years of age)	2670 Union Avenue Extended Memphis, TN 38112
Goodwill Homes Community Service	Nutrition services, transportation services, housing services, educational services such as head start, foster care program (15+ services)	Memphis Area	All residents in Memphis	4590 Goodwill Road Memphis, TN 38109
Porter-Leath	Residential services, foster and adoptive care, early childhood and parent education, senior services (10+ services)	Memphis Area	Widows and orphans in the Memphis area	868 N. Manassas St. Memphis, TN 38107
Assisi Foundation of Memphis	Health and human services, education and lifelong learning, social justice and ethics, cultural enrichment and the arts	Memphis and the Mid-South	N/A	515 Erin Drive Memphis, TN 38117
American Diabetes Association	Advocacy, lobbying, education, outreach, funding	Global	Global	5587 Murray Rd Suite 105 Memphis, TN 38119

Memphis Area Ryan White Planning Council	Financial support for individuals living with HIV/AIDS for treatment and care	Memphis Area	Individuals with HIV/AIDS	1075 Mullins Station Road Room W-269 Memphis, TN 38134
Memphis Center for Health Equity, Research and Promotion	Education and outreach	Memphis Area	Minorities in Memphis	101 Wilder Tower Memphis, TN 38152
Urban Child Institute	Education, outreach and research	Memphis	Mothers and children between the ages of 0-3	600 Jefferson Avenue #200 Memphis, TN 38105
Homeless Coalition	Housing, financial support	Tennessee	Homeless individuals	2670 Union Ave. Extended, Ste 818 Memphis, TN 38112
Meritan, Inc	Specialized foster care, home health, activity counseling, employment programs	Memphis	Aging population, children facing placement issues	4700 Poplar Avenue, Suite 400 Memphis, TN 38117
Educational Organizations				
University of Memphis School of Public Health	Educational	N/A	N/A	University of Memphis 1010 Wilder Tower Memphis, TN 38152
University of Tennessee Health Science Center-Primary Care Department	Educational	State of Tennessee	Residents of Tennessee	920 Madison Avenue Memphis, TN 38103
University of Memphis School of Public Health-Center for Health Equity and Research	Educational	Mid-South	Mid-south	University of Memphis 1010 Wilder Tower Memphis, TN 38152
LeMoyné-Owen College	Educational	Tennessee	N/A	807 Walker Ave Memphis TN 38126

APPENDIX V - KEY STAKEHOLDER INTERVIEWS SUMMARY AND THEMES

Key stakeholder interviews were conducted as part of the CHNA as a primary gathering tool. Per the IRS Notice, RCMC took into account input from various individuals with special knowledge and/or expertise in public health; persons representing agencies with data relevant to the healthcare needs of the community, including assessment of the overall health status in the community, access to healthcare services, health disparities and the healthcare needs of vulnerable and medically underserved populations, including specifically the aged, those with chronic diseases such as diabetes, and faith-based organizations representing the poor and other demographic groups.

RCMC officials identified 22 external stakeholders (of which 18 were interviewed) as a part of this process. Interview participants were asked to share their perspectives and professional opinions on the following topics:

- Description of the overall health status of the community
- Contributing factors to the community's health status
- Gaps or unmet needs in health services available to the community
- Barriers to accessing health services in the community
- Obstacles that exist to overcoming the identified barriers to access
- RCMC's role, programs or services provided to improve the community's health status
- Strength of services provided by RCMC
- Collaborative opportunities for improving the community's health status
- New or expanded programs and services aimed at improving overall health status

Sixteen internal stakeholder interviews were conducted to validate the resources and current initiatives at RCMC. The interviews conducted with internal stakeholders focused on the role, programs and services provided by RCMC.

Below is the summary of external key stakeholder interview responses to the topics outlined above:

KEY STAKEHOLDER EXTERNAL INTERVIEW FINDINGS

Description of Community Health Status and Contributing Factors

The overwhelming majority of key stakeholder interview participants described the health status of the RCMC community as **poor**. There were several reasons or factors given as contributors to this description, with **poverty and low economic status** being the greatest contributors. Other contributing factors included:

- High prevalence of chronic diseases (diabetes, hypertension, cardiovascular disease and HIV/AIDS)
- High rates of obesity that contributes to the prevalence of chronic diseases
- High rates of infant mortality due to late and/or lack of prenatal care; high teen pregnancy rate
- Low educational attainment which contributes to high unemployment and underemployment
- Lack of health insurance and funding to purchase health care services
- Low literacy and health literacy impacting reading and comprehending discharge instructions
- Lack of access to preventative care services

Other factors noted as contributing to poor community health status included:

- Community/cultural behavior (going to physician not a priority)
- Lack of access to nutritional foods and/or grocery stores - "food deserts"

- Heavy provider focus on acute care, not primary care
- High rate of violence in the community due to lack of mental health services and increased youth violence
- Increased number of undocumented residents without funding for care

Gaps and/or Unmet Needs

The most frequently mentioned gap or unmet need in health services is primary care providers for the uninsured and underinsured, which leads to high and inappropriate use of the emergency room. Other commonly mentioned gaps and/or unmet needs noted included:

1. Transportation to health services providers for the uninsured
2. Mental health services, both hospital and community-based
3. Chronic disease management programs
4. Community-based wellness and preventative medicine programs
5. Nutritional/dietary education outreach programs targeted towards school-aged children

Additional gaps and/or unmet needs mentioned included:

6. Increased geriatric care services (only one geriatrician in the community)
8. Long term care facilities, specifically for ventilator patients
9. Dialysis providers that treat ventilator patients
10. Drug abuse rehabilitation providers who serve indigent patients
11. Dental providers for the uninsured

Barriers to Access Health Care Services

The most frequent barrier to accessing and/or obtaining health services noted by interview participants is the lack of insurance and/or funding for purchasing health care services. Participants also described the following barriers:

1. Lack of transportation, especially for the uninsured
2. Lack of a sufficient number of health services providers who will accept Medicaid (TennCare) patients
3. Cultural constraints- generational attitudes regarding seeking physician access
4. Lack of coordination between providers to transition patients from one clinical setting to another
5. Lack of knowledge/understanding of how to navigate the health care delivery system

Opportunities for RMCM to Improve the Community's Health Status

The opportunity noted the most regarding opportunities for RMCM to improve the community's health status is for increased primary care presence at the neighborhood level. Interviewees also mentioned the following opportunities:

1. Expand outreach and education services
2. Enhance marketing regarding breadth and depth of services other than trauma, high risk OB and burn
3. Consider providing mental health services
4. Lead initiatives/programs to improve health status at the neighborhood level

Other opportunities noted are:

5. Increased community collaboration with faith-based organizations
6. Extend hours at Health Loop clinics (after 5p.m. and weekends) to increase access for those with non-traditional work hours

Opportunities for Overall Improvement of Community's Health Status

The most frequently mentioned opportunity to improve the community's health status is *increased collaboration between health care providers, academia, businesses and the faith community.* Other opportunities noted include:

1. Increased communication between providers for continuity of patient care
2. Increased outreach and education regarding health maintenance (diet/exercise/wellness)
3. Develop strategies to increase access to healthier food choices in economically challenged neighborhoods