2019 Community Health Needs Assessment



Report Contents

This report is the technical research document that describes the methodologies and results of Methodist Le Bonheur Healthcare's 2019 Community Health Needs Assessment (CHNA). It includes an individual report of each methodology undertaken by the Methodist Le Bonheur Healthcare (MLH) Program Evaluation Team and partners within the Shelby County Community Health Assessment Collaborative. Each report is formatted so that it can stand alone and be shared by itself with our stakeholders. The introduction and executive summary sections are also formatted to be shared individually depending on the needs of the audience. All together this report covers everything our team identified regarding the health needs of the residents of Shelby County, Tennessee and DeSoto County, Mississisppi.

As researchers, documentation of our methods is as important as the results of the research itself. All source material is cited and can be found in the references at the end of each report. It is our intent for this full technical document to be used as a resource for our grant writers, foundation staff, marketing staff, and anyone wanting to know where to start in understanding the current health needs of our community.

The following reports are included in the 2019 Community Health Needs Assessment:

- Executive Summary
- Introduction to MLH Community Needs Assessment Process
 - o Organizational Background
 - o Summary of Results
 - o Overview of Methodologies
 - o Health Priorities for 2016 and 2019
- Secondary Data Report
- Key Informant Survey Report from Regional One Health
- Community Survey Results Report
- Focus Group Report with Additional Research on Community Themes
- Congregational Health Survey Report

Introduction

A community health needs assessment is a critical tool which aids various agencies to identify the most pressing health issues of a community, while providing a contextual foundation of how an agency can raise awareness and implement an action plan to combat certain community health problems. The Internal Revenue Service (IRS) requires all non-profit hospitals to complete a CHNA every three years, and to complete minimum elements within the assessment. Though there is no standardized method in the report submission, each individual reporting agency may select the modes of collecting information for this assessment, as long as methods are thoroughly described. At the completion of each CHNA an agency must also submit an Implementation Plan which details how the agency and its staff plan to prioritize and embark upon resolving health issues identified within the assessment.

MLH views the undertaking of the CHNA as an opportunity which affords our system the opportunity to better listen and learn of the community's health needs, and to enhance a strategy that improves and protects the health and wellbeing of patients and their families. The CHNA also equips MLH with a chance to focus on the Social Determinants of Health (SDOH), those external factors (or conditions) which extend beyond the clinical environment, and affect the health outcome of patients. To fulfill its endeavors to conduct a proficient CHNA, MLH reached out to various health care agencies within Shelby County.

This is the first year that MLH, Shelby County Health Department (SCHD), Baptist Memorial Health Care, Regional One Health, and St. Jude Children's Research Hospital have come together to conduct a joint CHNA for Shelby County. While each agency's reporting deadline and service populations differed, partners came together to leverage current resources, establish organizational contributions, and to strategize a plan to identify which components of the assessment could be conducted together.

In January 2019 these five agencies convened with the purpose to conduct a joint CHNA. Subsequent meetings and conference calls led to the division of tasks among the agencies so that the required CHNA steps by the IRS could be completed. (See Table 1.) Although each agency compiles its own CHNA report, all agencies contributed expertise and tasks towards the process, and shared data and reports for deeper insight of findings within community.

From this cooperative effort the ultimate goal of the Joint Shelby County CHNA is to coordinate community—wide health improvement efforts, and to build upon the collaboration's strengths and resources to tackle community health issues together.

IRS Required Elements of CHNA and Strategies of Collaboration

- 1. Define the community population and geographic area it serves.
 - All agencies had Shelby County, Tennessee in common.
 - Every agency had additional areas they served unique to them, differing approval deadlines.
- 2. Assess the health needs of that community through a minimum of three methods; one should include soliciting input received from persons with special knowledge of or expertise in public health.
 - A. Analyze secondary data (e.g., previously collected data).
 - Agencies submitted their request for secondary data to Shelby County Health Department and received a common report on just Shelby County, TN.
 - MLH used this report and heavily supplemented information from the Tennessee and Mississippi Departments of Health, Community Commons, County Health Rankings, Kids Count, and Centers for Disease Control and Prevention.
 - B. Administer a community health survey.
 - One survey tool was developed and made available via paper or electronic in English, Spanish, and Arabic.
 - Agencies distributed the link to the survey among their company's websites, social media, and email.
 - Initial results were shared with partners to accommodate their deadlines.
 - MLH continued data collection to get a more representative sample.
 - Each agency analyzed the data independently.
 - C. Administer a key informant/stakeholder survey.
 - Utilized a survey from Regional One's CHNA contractor.
 - All agencies provided a list of key informant contact information to form a master contact list.
 - Regional One Health administered the survey, shared raw data and written summary of results.
 - D. Conduct focus groups.
 - The MLH Program Evaluation team facilitated groups within targeted underserved populations.
 - In the past, MLH did not speak to the community directly regarding needs, only providers were consulted.
 - Through these focus groups, we identified more in-depth information about barriers to health that were not fully captured via the surveys.
- 3. Document results in a written report that which is adopted for the hospital system by an authorized body.
 - Each agency wrote their own CHNA document and identified its own priorities.
 - Top health needs could be different depending on other collection methods employed.
- 4. Develop a plan to share with executive leadership to aid in the process of:
 - Identifying top health priorities to address.
 - Developing an implementation plan to address these priorities at each major system facility.
- 5. Make the agency's CHNA report widely available to the public.

MLH Mission/Vision/Values

Mission

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

Vision

Methodist Le Bonheur Healthcare will be nationally recognized for excellence in clinical quality, patient safety, and compassionate care to improve every life we touch.

Values

Service: Patients and families are at the heart of all we do.

Quality: We consistently provide the highest quality of care through safe, proven practices.

Integrity: We accept and honor the trust placed in us through our faith-based mission.

Teamwork: Together we are better.

Innovation: We are a learning organization and embrace new ways to get better results.

Service Area

This report presents information that describes the demographics and health status of residents within Shelby County, Tennessee and DeSoto County, Mississippi, Methodist Le Bonheur Healthcare's (MLH) primary service area. Shelby County has a population of 937,847 and DeSoto County has a population of 173,267. The racial split for Shelby County consists of almost 57% African American and 38% Caucasian, while DeSoto County, has a mix of 70% Caucasians and 25% African Americans. Hispanic ethnicity makes up 6% of Shelby County and 4% of DeSoto County. About a quarter of the populations of both counties are children under age 18.

About Methodist Le Bonheur Healthcare

Based in Memphis, Tennessee, Methodist Le Bonheur Healthcare has been caring for patients and families regardless of ability to pay for more than 100 years. Guided by roots in the United Methodist Church and founded in 1918 to help meet the growing need for quality healthcare in the greater Memphis area, MLH has grown from one hospital into a comprehensive healthcare system with 13,000 Associates supporting six hospitals, ambulatory surgery centers, outpatient facilities, hospice residence and physician practices serving communities across the Mid-South. From transplants and advanced heart procedures to expert neurology services and compassionate cancer care, MLH offers clinical expertise with a focus on improving every life we touch.

For nine consecutive years, Methodist Memphis Hospitals has been named a Best Regional Hospital in Memphis by U.S. News and World Report. For three consecutive years, MLH has earned a spot on the Great Place to Work® and FORTUNE magazine list of 100 Best Companies to Work For. MLH is also recognized by a Great Place to Work® and FORTUNE as a Best Workplace in Healthcare, and Biopharma and a Best Workplace for Women. MLH is also on the Forbes list of Best Employers for Diversity and is recognized by Becker's Hospital Review as one of the 150 Top Places to Work in Healthcare.

Visit us at methodisthealth.org.

Methodist University Hospital

Methodist University Hospital is the largest, most comprehensive hospital in the Methodist system. It is a 583 licensed acute bed facility in the heart of the Memphis Medical District. As an academic campus and principal teaching hospital of the University of Tennessee Health Science Center (UTHSC), we bring together research, medicine and innovation. This partnership supports multidisciplinary collaboration among doctors and clinical team members, leading to more advanced medical care for our patients. At Methodist University, a staff of more than 2,500 Methodist Associates focuses on providing patient and family-centered healthcare services. The following specialty areas provide cutting-edge technology and offer the latest and most advanced procedures in the Mid-South: The James D. Eason Transplant Institute, with a nationally ranked Liver Transplant Program; The Brain and Spine Institute; cardiology and cardiovascular services, with a Comprehensive Stroke Center; oncology; the Blood and Marrow Transplant Center and Center for Emergency Medicine. Methodist University Hospital has established areas of focus to provide comprehensive regional tertiary care for cardiac, cancer, neurologic and transplant patients.

Methodist South Hospital

Methodist South Hospital was opened in the Whitehaven community in 1973 and serves south Shelby County and the surrounding areas. Methodist South currently has 156 licensed acute beds and provides a full complement of general acute care services, including maternity services with a Level-II neonatal intensive care unit (NICU), critical care, surgery, 24-hour emergency department, cardiac, orthopedic, dialysis, and wound healing.

Methodist North Hospital

Methodist North was opened in 1978 in the Raleigh community to support the needs of north Shelby County and neighboring Tipton County. Methodist North currently has 280 licensed acute beds. Methodist North provides general acute care services including critical care, same-day surgery, 24-hour emergency care, limb preservation and wound care; cardiac services; orthopedic surgery and a Behavioral Health Center.

Methodist Le Bonheur Germantown Hospital

Methodist Le Bonheur Germantown Hospital is a 319-bed, full service hospital located in a community setting and serving east Shelby County and surrounding communities. Among the many services offered by Methodist Germantown are maternity services with a Level-III neonatal intensive care unit (NICU), comprehensive cardiology program, critical care services, orthopedic surgery program, rehabilitation services, an outpatient diagnostic imaging center and a 24-hour emergency department staffed and equipped to meet the healthcare needs of both children and adults.

Le Bonheur Children's Hospital

Located in Memphis, Tennessee, Le Bonheur Children's Hospital treats more than 250,000 children each year through community programs, regional clinics and a 255-bed state-of-the-art hospital. A medical staff of more than 240 physicians provides expert care in 45 subspecialties. Le Bonheur Children's Hospital has consistently been ranked as a "Best Children's Hospital" by U.S. News and World Report, including ranking in eight specialties with a Top 10 honor in Cardiology and Heart Surgery for 2019-20. The Mid-South's only comprehensive pediatric facility, Le Bonheur operates the only pediatric ACS Level 1 trauma center and Level IV NICU in the region. The hospital provides numerous specialty services including heart, liver and kidney transplantation, brain tumor resections, cardiothoracic surgery and invasive and non-invasive cardiac laboratories. Various outpatient centers provide urgent care, outpatient surgery and subspecialty clinics throughout the Mid-South in ambulatory settings and partners with various West Tennessee school systems to provide school-based nursing services, health screenings and health education. Le Bonheur Children's partnerships include St. Jude Children's Research Hospital, Semmes Murphey and Campbell Clinic Orthopedics.

Le Bonheur Children's is also committed to educating the next generation of pediatric providers, as the primary pediatric teaching hospital for the University of Tennessee Health Science Center. In addition, the Children's Foundation Research Institute, a partnership of the University of Tennessee Health Science Center, Le Bonheur and the Children's Foundation of Memphis, works to further the prevention, treatment and elimination of pediatric disease by supporting researchers looking for new discoveries in pediatrics. Medical scientists perform research in many areas including neuroscience and infectious and respiratory diseases.

University of Tennessee Methodist Physicians

UT Methodist Physicians (UTMP) is an academic physician practice group. As a partnership between Methodist Le Bonheur Healthcare and the University of Tennessee Health Science Center, UTMP includes UTHSC physicians who have a strong history of affiliation with Methodist.

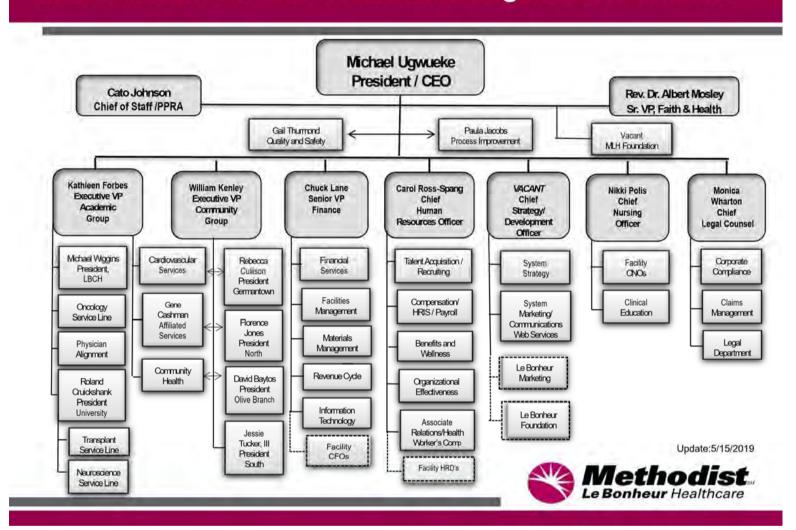
Methodist Olive Branch Hospital

Methodist Olive Branch opened in 2013 and is a five-story, 69-bed hospital designed to care for the community of north Mississippi. Methodist Olive Branch Hospital provides emergency services, obstetrics, cardiology, gastroenterology, nephrology, rehabilitation services and imaging and diagnostic services. The hospital also supports MLH's commitment to sustainability by being designed in accordance with U.S. Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) certification.

Methodist Medical Group

Methodist Le Bonheur Healthcare (MLH) formed Primary Care Group (PCG) LLC, which is now called Methodist Medical Group (MMG), in January 2011. MMG brings together internal, family medicine and specialty physicians in a collaborative effort to provide premier comprehensive patient-center care.

Methodist Le Bonheur Healthcare Organizational Chart



Methodology Abstracts

Secondary Data

Each agency within the CHNA collaboration obtained secondary data via request to the Shelby County Health Department (SCHD). This type of data analysis helps partners to receive a comprehensive perspective of the current health status of Shelby County's residents, to tell where and which populations are primarily affected by certain health outcomes, and to learn how Shelby County's health indicators compare to other geographic areas as designated by local, state and federal health sources. While secondary data analysis supports health agencies to accomplish the IRS' task to "assess the health need of a community," it also sets the social and health context to determine how people's health is impacted by the Social Determinants of Health (SDOH). To better understand the populations which it serves, MLH conducted secondary data analyses on both Shelby County Tennessee and DeSoto County Mississisppi.

Key Informant Survey

Regional One Health spearheaded the administration of the Key Informant (KI) Survey so that KIs would only be contacted once by one organization within this portion of the CHNA process. KIs were emailed the survey during April 1 through April 15, and were asked questions focused around health issues/ barriers for people in the community, health care access, underserved populations, and how to increase the overall health of Shelby County and the surrounding area. A total of 26 key informants completed the survey, with the largest percentage of informants being affiliated with Health Care/Public Health Organizations (48%), Non-profit/social services (20%) and Education (16%). Among the informants, the majority identify themselves as primarily serving traditionally underserved populations, with 85% stating that they would not consider the communities in the area as "healthy," and 58% stating that the communities overall health status as "Poor." Nevertheless, 96% of key informants feel that their organization collaborates with other organizations/institutions on local efforts to improve health in the community.

Community Health Survey

The Community Health Survey plays a vital role within the CHNA to ensure that an agency accomplishes the task to "assess the health need of a community," as indicated by the IRS. This survey was constructed in collaboration with all partners, and the final format of the survey asked participants 48 questions about

several health topics related to community health. In addition to survey formation, each partnering agency conducted a hospital/service analysis concerning the top languages utilized within the various health systems to determine the top three languages in which the Community Health Survey would be translated. From service analyses the top three languages: English, Spanish, and Arabic, respectively. Administration of this survey methodology varied, with both passive and active approaches performed to obtain community participation. Within the distribution of the Community Health Survey, MLH took a specific role to ensure that the diverse clientele of its system participated in the needs assessment.

Focus Groups

Methodist Le Bonheur Community Outreach (MLCO) held 11 focus groups with 139 community members of varying age, race, and gender over a 3 month period. The discussion in the groups revolved around community health, including identifying and discussing the most prevalent health issues in the community and barriers to care. Across all the groups, many similar themes emerged. First was a need for improved healthcare navigation and cultural humility. Second was a need for improved mental health resources and a decrease in stigma surrounding mental health. Third was the issue of uninsured or underinsured populations being unable to find or afford health care. Fourth was the need to increase the community's knowledge of already-available resources. The final theme was the barrier of poverty and health. These themes revealed the community's concern and understanding of the impact these seemingly non-health-related factors can have on the community's health. Overall, participants felt that offering assistance with healthcare navigation and addressing these other barriers was an opportunity for healthcare organizations to improve upon and increase patient engagement, trust, and ultimately improve health outcomes.

Congregational Health Survey

The Mid-South Congregational Health Survey (MSCHS) is a church needs assessment conducted in collaboration with Methodist Le Bonheur Healthcare's Congregational Health Network (CHN) and other academic and community health institutions within Memphis, TN. The primary focus of the MSCHS is to identify congregations' health needs. During February 2019 to July 2019, 76 faith-based congregations within Shelby and DeSoto Counties provided 622 participants to complete the survey. A remarkable finding within secondary data analysis of this survey displays that participants ranked the topic of mental health among one of the most significant health need/issue, especially the topic of *Anxiety or Depression*. This assessment not only presents the opportunity of how health care organizations can partner with church leaders in order to address congregations' health needs, but also produces insight of the various Social Determinants of Health associated with particular community health needs/issues.

Health Priorities

In the 2016 MLH Community Health Needs Assessment, we identified four priority areas for our work: maternal, infant, and child health, cardiovascular disease and stroke, cancer and access to health services. Below are the initiatives, programs, and activities the hospital system undertook between 2016 and 2019 to serve the pressing needs of our community.

Maternal, Infant and Child Health

Starting within our core group of practitioners, we continued to recruit pediatricians, pediatric specialists, neonatologists and neonatal/pediatric nurse practitioners to serve our children's medical needs and grew educational conferences for Neonatal and Pediatric Practitioners. A multidisciplinary group within Le Bonheur Children's Hospital implemented a hospital-based Safe Sleep program. The community, hospital based practitioners and local stakeholders came together to launch the Family Resiliency Initiative for children at risk for adverse child experiences. We served 230 at-risk families and connected them to a variety of resources to address their needs.

During this time, we also launched and conducted a parent support warm line and a Tennessee statewide breastfeeding 24/7 hotline. We served 437 families through the parent support warm line and addressed 15,512 calls across our area regarding breastfeeding concerns. Community lactation consultants worked with local pediatricians to establish a breastfeeding clinic within the pediatric offices, serving 488 people to date.

MLH also continued to support several intensive long-term programs to support mothers and babies as well as families with children who have severe asthma. Our home visitation programs for new mothers living below the poverty line served 400 families a year. Participation in these programs can last until the child is 5 years of age. Our multi-disciplinary team who helps families manage their children's asthma served 480 children a year. Community childbirth classes held at hospitals served 239 families. Methodist Le Bonheur Community Outreach educated 10,619 Shelby County middle and high school students on teen pregnancy prevention through the "Be Proud! Be Responsible! program.

Cardiovascular Disease & Stroke

Le Bonheur Children's Hospital launched a Cardiovascular Intensive Care Unit and a catheter lab expansion and expanded the pediatric heart failure program to include transplant and device implantation. We recruited pediatric and adult heart failure subspecialists and an internationally recognized structural heart specialist for adult program expansion. System-wide clinical pathways for adult heart failure and atrial fibrillation patients were established. MLH implemented tele-stroke technology to provide support to community hospitals.

Education and support groups are important services for our community members living with or taking care of people with chronic diseases. Our Chronic Disease Self-Management Program served 198 participants and our diabetes education programs served 400 adults. We provided cardiac education to 384 community members. More than 100 people participated in our stroke education and support groups. Our fitness education groups served 440 overweight or obese adults. MLH also recruited 2 bariatric surgeons and expanded accredited program to offer both medical and surgical weight loss treatments.

Cancer

During this time, MLH also developed a formal cardio-oncology clinic to treat and study heart failure in children/young adults with cancer and recruited a cardio-oncologist to advance multidisciplinary integrative adult care model. Our facilities conducted 133,628 mammograms screenings and 89,957 diagnostic tests. Through our mobile mammography unit there were 9,183 screenings conducted in the community. MLH also conducted more than 1,800 lung cancer screenings.

Access to Health Services

Le Bonheur Children's added pediatricians to Le Bonheur Pediatrics to serve Shelby County children and expanded our regional presence by opening an outpatient clinic in Jackson, Tennessee and one in Tupelo, Mississippi, and another clinic in east Shelby County on Humphreys Boulevard. They also expanded subspecialty services in Jonesboro, Arkansas. At our Methodist Germantown Hospital, we opened pediatric Emergency Department. Our PediFlite transport services expanded to West Tennessee and East Arkansas. The system also expanded pediatric trauma education to providers in the region and added pediatric subspecialty fellowships to train next generation of specialists.

The new Shorb Tower at Methodist University Hospital opened with advanced comprehensive care for transplant, cardiology, blood and marrow transplant and oncology. We also established adult primary care clinics in South Memphis, North Mississippi and Collierville markets. Adult primary care successfully launched a new patient web portal, which has engaged 72% of patients in using the portal and led to connecting 20,000 new patients to a primary care physician.

Realizing the unmet need for behavioral health services in our community, we established an integrated behavioral health and primary care model in North Memphis market. The Living Well Network made 3,045 referrals to local mental and behavioral health providers. Our partnership with St. Jude Children's Research Hospital established The Sickle Cell Clinic, which has served 468 patients since its inception. MLH deployed educational and training to all ED clinicians/staff in order to decreased time from arrival to pain management by 60-minute average.

During this time, our system also facilitated 49 community health fairs serving more than 13,000 residents, two educational summits and seven community events including the My Sister's Keeper program, serving more than 300 individuals from Shelby and DeSoto Counties. Through our Wellness without Walls program, we screened 485 low-income residents for health concerns and provided connections to our chronic disease management programs and other resources.

Many of our programs seek to identify and connect individuals to needed health services. Our HIV identification and navigation programs provided testing services to nearly 10,000 individuals and facilitated approximately 700 referrals and connections to medical care. Transportation is an issue for many residents in our service area. More than 5,500 travel vouchers were given to residents to help access clinic and/or community-based programs and services. Overall, we made more 26,000 referrals to other community services.

2019 Health Priorities

In establishing system priorities to address the 2019 CHNA, the senior leadership of our system reviewed and discussed the report and established that, efforts to address 2016 priorities should continue. The top health concerns identified in 2016 are still relevant. Our plan is for leadership within all of our facilities to review the 2019 CHNA and develop facility-specific implementation plans to address the priority areas as well as specific needs applicable to their community. Our system will not only address specific diseases and top causes of death but will also work to address barriers and issues that have the greatest geographic/racial/gender disparities.

Health Issues by Cause of Death, Prevalence, and Disparities

| Causes of Death | Prevalence of Condition | Issues of the Community |
|------------------------------|-------------------------|----------------------------|
| Cardiovascular* | High Blood Pressure | Mental Health |
| Cancer* | Obesity | High Blood Pressure |
| Neurological | Diabetes | Diabetes |
| Diabetes | Alcohol Excess | Heart Disease |
| Lower Respiratory | Heart Disease | Obesity |
| Unintentional Injuries | Violent Crime | Drug / Alcohol / Addiction |
| Mental Health / Suicide | STIs | Cancer |
| Maternal Infant Child Death* | Cancer | Violence |
| Homicide | Teen Births | Infant Mortality |
| | Teen STIs | Access to Services* |

^{* 2016} Health Priorities; **BOLD** Racial Disparities

Barriers to Healthcare

- Lack of mental health resources
- o Ratio of mental health providers 1.5 X fewer In Shelby County and 2.6 X fewer in DeSoto than the US
- No or limited transportation
- o 10% of service area has no access to personal transportation
- Lack of financial resources to even pay basic living costs
- o 20% of the population lives in poverty
- Lack of health insurance or adequate coverage
- o Hispanic do not have health insurance at a rate 5.4 X greater than Caucasian
- o African American do not have health insurance at a rate 2.0 X greater than Caucasians
- Lack of provider cultural humility and trust
- Confusing and overwhelming health care navigation

2019 Community Health Needs Assessment Methodologies at a Glance

| Secondary Data | Focus Groups | Congregational Survey | Community Survey | Stakeholder Survey |
|---|---|--|---|---|
| Shelby Co. Health Denartment | 139 people/11 groups | 622 responses | Over 700 responses | 26 responses |
| State of Mississippi Health Department | 48% African American; 40% Hispanic | 87% African American | 39% African American; 52% Caucasian | Health care providers |
| Tennessee Department of Health | 91% between 18 and 64 | 84% older than 45 years | Even representation ages 25 to 64 | Nonprofit leaders |
| Community Commons | Housing stakeholders | 70% female | 87% female | Business leaders |
| County Health Rankings | Families living in city- provided housing | 82% have some college experience | 88% have some college experience | Educational professionals |
| Centers for Disease Control | School Employees | 71% private insurance | 79% had employer sponsored health insurance | Public health officials |
| Kids Count | Latino community members of Hispanic decent | 33% government insurance | 56% married | Social service providers |
| | Parents and caregivers of children | Highest concentration of respondents from low income zip codes | Highest concentration of respondents from higher income zip codes | Government housing and transportation officials |
| | People living with HIV/AIDS | | 79% working full time | |
| | Residents of Olive Branch MS | | 62% made 50K or more | |
| | Service providers for low income families | | | |

Health Issues Identified through the 2019 Community Health Needs Assessment

| Causes of Death in Shelby and DeSoto | Shelby and | DeSoto | Preval | Prevalence in Shelby and DeSoto Counties | by and DeSc | to Counties | | Community Per | Community Perceived Health Issue |
|--|-------------------------|------------------|------------------------|---|-----------------------|-----------------------|---------------------|-----------------------------|----------------------------------|
| Approximate order from highest to lowest Shelby DeSo | om highest to Shelby | lowest DeSoto | ln l | In order of number of people affected Shelby | er of people . Iby | affected DeSoto | oto | In order o | In order of Importance |
| Secondary Data | Rate per 100,000 | | Secondary Data | Percentage or Rate | Number of People | Percentage or Rate | Number of People | Health Issue | Sources |
| Cardiovascular | 315 | 140.9 | High Blood Pressure | | | | | Mental Health | Congregational Survey |
| Heart Disease | 117.4 | 174.5 | All adults | 36.2% | 245,721 | 33.3% | 37,858 | Anxiety | Stakeholder Survey |
| Stroke | 51.2 | 35.8 | Medicare | %89 | 55,265 | 64% | 12,660 | Stress | Focus Groups |
| | | | | | | | | Depression | |
| Cancers | 192 | 199 | Obesity | | | | | | |
| Prostate | 30 | 20.1 | adult | 35% | 236,551 | 32% | 39,661 | Cardiovascular Disease | Community Survey |
| Lung | 49 | 52.2 | child | 39% | | 79% | | Heart Disease | Congregational Survey |
| Colon | 19 | 14.2 | | | | | | High Blood Pressure | |
| Breast | 28 | 32.2 | Diabetes | 12% | 83 505 | 11 7% | 17 761 | Stroke | |
| Neurological | 110 | 42.5 | Medicare | 28% | 24,623 | 28.0% | 24,623 | Diabetes | Community Survey |
| Dishotor | 1 77 | 0 | | 12 6% | 8 V 8 V 8 | 17 20% | 12 6/3 | | Congregational Survey |
| Diabetes | T.// | ЭТ | AICOLIOI EXCESS | 12.070 | 04,040 | 12.2070 | 13,043 | +100/+10/ | 4 |
| Lower Respiratory | 37.6 | 59.6 | Heart Disease | | | | | Overweight/Obesity | Congregational Survey |
| | (| 1 | All : | %9 | 31,293 | 6.4% | 4,841 | | Stakeholder Survey |
| Unintentional Injuries | 23.3 | 13.7 | Medicare | %/7 | 73,447 | 31.3% | 6,204 | acitolodo/lodoctiction | Comminity Survey |
| ۲ <u>۸۱۸</u> | . 1 | 7.61 | Violent Crime | 1.286.10 | 11.500 | 186.9 | 26.8 | Ul ug/ Alcollo!/ Addictioil | |
| Suicide | 28.3 | 14.5 | per 100,000 | | | | | Cancers | Congregational Survey |
| | 3.6 | J.: | STIs | | | | | Violence | Stakeholder Survev |
| Drug Overdose | 17.1 | 14.6 | Chlmydia | 835.5 | 7,838 | 491.6 | 852 | | Congregational Survey |
| | 21 | | Gonorrhea | 311.7 | 2,924 | 311.7 | 2,924 | | |
| Child Deaths | 26.3 | | HIV AIDS | 749.7 | 5,731 | 206.3 | 292 | Maternal Child Infant | Stakeholder Survey |
| | | | All Cancers | 520.5 | new cases | 503.5 | new cases | Dental Health | Community Survey |
| Homicides | 18.7 | 5.3 | Prostate | 148.6 | 642 | 121 | 86 | | Stakeholder Survey |
| | | | Lung | 64.5 | 586 | 78.1 | 126 | | |
| Infant Mortality | 12.5 | 3.3 | Colon | 43 | 399 | 43.3 | 72 | Unintentional Injuries | Stakeholder Survey |
| | | | Breast | 128.7 | 629 | 114.9 | 106 | | |
| | | | Low birth weight | 11.2% | 11,528 | 8.4% | 1,242 | | |
| | | | Teen Births | 28 | 2,065 | 39.4 | 226 | | |
| | | | per 1,000 | | | | | | |
| | | | Teen STIs per 1,000 | 39 | 1,453 | | | | |

2019 Top Health Disparities

| Health Issues | Shelby County | DeSoto County |
|-------------------------------------|--|---|
| Gonorrhea (Morbidity) | Shelby 2.0 X worse than TN and US | |
| Gonorrhea (Morbidity) | African American 11.0 X greater than Caucasian | |
| HIV New Cases (Morbidity) | Shelby 2.1 X worse than US | |
| HIV New Cases (Morbidity) | African American 5.0 X greater than Caucasian | African American 3.8 X greater than Caucasian |
| Chlamydia (Morbidity) | Shelby is 1.7 X worse than US | |
| Teen Births | African American 4.5 X greater than Caucasian | |
| Teens with STDs | Shelby 2.3 X worse than TN | |
| Violent Crime (Morbidity) | Shelby 2.7 X worse than TN | |
| Homicide | Shelby 3.4 X worse than US | African American 3.3 X greater than Caucasian |
| Homicide | African American 7.3 X greater than Caucasian | |
| Infant (Mortality) | Shelby 1.9 X worse than US | |
| Infant (Mortality) | African American 2.6 X greater than Caucasian | African American 1.8 X greater than Caucasian |
| Preterm Births | Shelby 2.2 X worse than US | |
| Preterm Births | African American 1.5 X greater than Caucasian | African American 1.3 X greater than Caucasian |
| Low Birth Weight | African American 2.1 X greater than Caucasian | African American 1.8 X greater than Caucasian |
| High Blood Pressure (Mortality) | African American 2.0 X greater than Caucasian | African American 1.5 X greater than Caucasian |
| Stroke (Mortality) | African American 1.7 X greater than Caucasian | African American 1.3 X greater than Caucasian |
| Diabetes (Mortality) | African American 1.8 X greater than Caucasian | African American 2.6 X greater than Caucasian |
| Prostate Cancer (Morbidity) | Shelby 1.5 X worse than US | |
| Prostate Cancer (Morbidity) | African American 1.4 X greater than Caucasian | African American 2.1 X greater than Caucasian |
| Prostate Cancer (Mortality) | African Americans 3.0 X greater than Caucasian | African Americans 2.3 X greater than Caucasian |
| Colon Cancer (Morbidity) | African American 1.5 X greater than Caucasian | African American 1.6 X greater than Caucasian |
| Colon Cancer (Mortality) | African American 1.6 X greater than Caucasian | |
| Breast Cancer (Mortality)* | African Americans 1.4 X greater than Caucasian | African Americans 1.6 X greater than Caucasian |
| *Breast Cancer Morbidity rate betwo | *Breast Cancer Morbidity rate between African Americans is the same as Caucasians but African Americans die at a rate 1.4 times greater than | frican Americans die at a rate 1.4 times greater than |
| Caucasians. | | |
| | | |

Racial, Gender, and Geographic Disparities 1.0 means the rates/percentages of two groups are equal. Anything above 1.0 means one group is more greatly affected.

Ex: 1.5 X = 50% more of one group is affected than the other group; 2.0 = The rate for that group is twice that of the comparison group.

About the Program Evaluation Team

Christina M. Underhill, Ph.D. is the Director of Program Evaluation at Le Bonheur Children's Hospital where she has worked since 2008. She is a Research Psychologist with 15 years of experience in Organizational Research. She leads a team of program evaluators who design and implement research and evaluation projects for health outreach programs. In her prior positions, she was a Research Psychologist for the Department of the Navy and a Training Analyst with the Department of Homeland Security.

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August Marshall received her M.A. in Applied Anthropology from the University of Memphis in 2012. During graduate school, August worked with the Center for Research on Women doing research and focus groups for a teen pregnancy prevention program. August serves as a program evaluator for the organization's maternal child division, which hosts multiple programs focused on improving the health of mothers and babies in Memphis.

Kelsie Cox received her M.Ed. in Community Development and Action from Vanderbilt University in 2015. She is also a 2013 graduate of Rhodes College with a B.A. in Political Science and a minor in Gender and Sexuality Studies. Primarily, she works with a teen pregnancy prevention program focused on increasing teens' knowledge and skills surrounding HIV/STIs, abstinence and safer sex, and healthy relationships and negotiation.

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2019 Community Health Needs Assessment Executive Summary

In January 2019, for the first time ever, Methodist Le Bonheur Healthcare (MLH) collaborated with Shelby County Health Department (SCHD), Regional One Health, Baptist Memorial Health Care, and St. Jude Children's Research Hospital to conduct a joint Community Health Needs Assessment (CHNA) for Shelby County. These five renowned healthcare agencies convened to share ideas, resources, data, and most importantly to decrease duplications of CHNA efforts even though our geographic service areas and reporting timelines differed. Regional One Health spearheaded a survey of key industry and stakeholder informants. The SCHD developed a community health needs survey that MLH translated to both Spanish and Arabic. Some of the partners promoted the surveys on social media platforms, while SCHD and Methodist went into the community to those not connected to social media.

MLH took an integrative approach to utilize various methods for this assessment for our primary geographic area including Shelby County, Tennessee and DeSoto County, Mississippi. In addition to publically available secondary data, MLH incorporated results from the Methodist Congregational Health Needs Survey, an assessment to learn health needs of faith-based communities in and around Shelby and DeSoto Counties. Program evaluation staff of Methodist Le Bonheur Community Outreach conducted 11 focus groups with 139 community members to gather more in-depth knowledge of health and barriers to health.

In summary, our CHNA reveled the following key information:

| Most Common Causes of Death | Prevalence of Condition | Issues Identified by the Community |
|---|---|---|
| Cardiovascular* Cancer* Neurological Diabetes Lower Respiratory Unintentional Injuries Mental Health / Suicide Maternal Infant Child Health* Homicide | High Blood Pressure Obesity Diabetes Alcohol Excess Heart Disease Violent Crime STIs Cancer Teen Births Teen STIs | Mental Health High Blood Pressure Diabetes Heart Disease Obesity Drug / Alcohol / Addiction Cancer Violence Infant Mortality Overall: Access to Health* |

^{*} Health Priorities Identified in the 2016 CHNA and Implementation Plan

Regardless of the health conditions, the community voiced several issues related to accessing healthcare which cut across all health conditions:

- Lack of mental health resources
- No or limited transportation
- Lack of financial resources to even pay basic living costs
- Lack of health insurance or adequate coverage
- Lack of provider cultural humility and trust
- Confusing and overwhelming health care navigation.

Although the secondary data, stakeholder and community surveys did not identify these barriers due to methodology, these issues were consistently voiced during the 11 focus groups that were held with community members as well as reflected in the congregational health surveys administered to local churches.

Issues prioritized in 2016 included: cardiovascular health, cancer and maternal child health. Efforts to address these issues have been and will continue to be deployed as these same issues continue to plague our community.

In establishing system priorities to address the 2019 CHNA, the senior leadership of our system reviewed and discussed the report and established that:

- Efforts to address 2016 priorities should continue.
- Leadership within all of our facilities should review the 2019 plan and develop their own, facility-specific implementation plan.
- Our system should not only address specific diseases and top causes of death but should also work to identify barriers and issues that have the greatest geographic, racial, or gender disparity within our service area.
 - African Americans die from heart disease, stroke, and lower respiratory diseases at a much higher rate than Caucasians. More information is provided in the Secondary Data Report.
 - While rate of infant mortality is lower than any of the other major causes of death, the racial disparity is staggering. The preterm birth rate for Shelby County is 2.2 times worse than Tennessee and the percent of mothers lacking prenatal care is 2.2 greater than the United States'. African Americans have a rate of premature births that is much higher than Caucasians and a death rate that is almost 3 times greater than Caucasians.
 - Although teen birth rates have dropped nationally and locally through pointed efforts to educate youth such as the "Be Proud Be Responsible" program, African American and Hispanic teens gave birth at rates 4 to 6 times greater than Caucasians in Shelby County. Shelby County has a teen STI rate that is 2 times greater than Tennessee. African Americans acquired new cases of HIV and Chlamydia at 5 times the rate of Caucasians and gonorrhea 11 times more often than Caucasians.

We increasingly understand that many health conditions are negatively affected by Social Determinants of Health, which are most prevalent among impoverished populations. The poverty rate for our areas is 20%, which is higher than state and national averages. A third of all children live in poverty. A third of the populations of both counties have limited access to healthy foods while over 10% have no access to personal transportation. All these affect a person's ability to pay for their healthcare. Over 10% don't complete a high school education, which limits employment opportunities and drastically affects earning potential. While changing the educational, economic climate of our service area is out of our scope, as a system we have a direct impact and control over where and how care is provided, type of care, physician and provider cultural sensitivity, and providing assistance to our community to navigate a complex health system of care.



2019 COMMUNITY HEALTH NEEDS ASSESSMENT SECONDARY DATA

Methodist Le Bonheur Healthcare

Prepared by:

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Abstract

This report presents a presentation of secondary public data that describes the demographics and health status of residents within Shelby County, Tennessee and DeSoto County, Mississippi (Methodist Le Bonheur Healthcare's (MLH) primary service area). Given that disparities exist among residents within this service area, and these disparities impact health outcomes disproportionately, gender and racial data are identified, where possible. Information on the health issues of the MLH service area include examining population impact and disparities of specific health issues, and Social Determinants of Health such as education, economic stability, social context, transportation and housing, food security and physical activity. In addition to data tables, a comparison of certain health outcomes of Shelby and DeSoto Counties to their state and national rates were represented visually via dashboards.

Report Organization

This report presents an analysis of secondary public data that describes the demographics and health status of residents within Shelby County, Tennessee, and DeSoto County, Mississippi, Methodist Le Bonheur Healthcare's primary service area. Where possible gender and racial data are provided to understand the disparities among residents within this service area.

The report is organized into overarching categories beginning with population statistics and overall health of the primary service areas. Following is detailed information on specific health issues and behaviors presented in order of their impact on our communities. The remaining categories are devoted to additional Social Determinants of Health such as education, economic stability, social context, transportation and housing, food security and physical activity, all of which impact the health of both counties.

How to Read the Dashboards

The dashboards in this report serve as visual representation to demonstrate where certain health outcomes of Shelby and DeSoto Counties compared to their state and national rates.

To differentiate against the various health ratings among the national, state and local data:

- National health rates are displayed within the inner, blue arc of the dashboard.
- State health rates (either Tennessee or Mississippi) are displayed within the outer, yellow arc of the dashboard.
- The speedometer gauge stick displays the county health rates, demonstrating where the county health rate compares to the national and state rates. If a county's health measurement is equal to or less than its state rate, the speedometer gauge stick will appear green. (See below, Shelby County.) However, if the county's rate is greater than that of its state rate, the speedometer gauge stick will appear red. (See below, DeSoto County.)

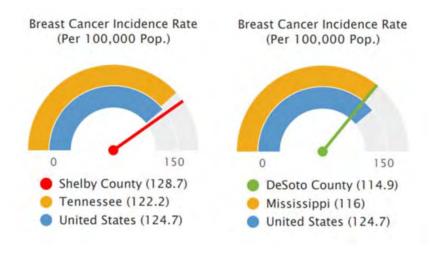


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Demographics of Service Area

Shelby County, Tennessee has a racial split that consists of almost 57% African American and 38% Caucasian. In DeSoto County, there are more Caucasians (70%) than African Americans (25%). Hispanic ethnicity makes up 6% of Shelby County and 4% of DeSoto County. About a quarter of the populations of both counties are children under age 18.

TABLE 1. RACIAL COMPOSITION OF SHELBY COUNTY, TENNESSEE, 2013-2017

| Race | Caucasi | an | African American | | Asian | | Other | | Multiple Races | |
|-----------|-----------|------|---------------------|------|---------|-----|--------|----|-------------------|-----|
| | # | % | # | % | # | % | # | % | # | % |
| Shelby Co | 341,880 | 38.2 | 498,510 | 56.6 | 23,452 | 2.7 | 2,857 | .3 | 13,950 | 1.6 |
| Tennessee | 4,898,888 | 78.3 | 1,099,118 | 17.6 | 109,828 | 1.8 | 26,623 | .4 | 122,861 | 2.0 |

Note: Data are from source ¹.

TABLE 2. RACIAL COMPOSITION OF DESOTO COUNTY, MISSISSIPPI, 2013-2017

| Race | Caucasi | an | African Am | erican | Asiar | 1 | Othe | r | Multip Race | |
|-------------|-----------|------|------------|--------|--------|-----|--------|-----|----------------|-----|
| | # | % | # | % | # | % | # | % | # | % |
| DeSoto Co | 120,513 | 69.6 | 43,980 | 25.4 | 2,100 | 1.2 | 3,040 | 1.8 | 3,634 | 2.1 |
| Mississippi | 1,755,471 | 58.8 | 1,122,576 | 37.6 | 28,859 | 1.0 | 41,385 | 1.4 | 37,929 | 1.3 |

Note: Data are from source ¹.

TABLE 3. PERCENT AND TOTAL OF ETHNICITY IN SHELBY AND DESOTO COUNTIES, 2013-2017

| Ethnicity | Shelby Cou | unty, TN | DeSoto Coι | unty, MS |
|--------------|------------|----------|------------|----------|
| | # | % | # | % |
| Hispanic | 57,198 | 6.1 | 8,253 | 4.8 |
| Non-Hispanic | 880,649 | 93.9 | 165,014 | 95.2 |

Note: Data are from source ¹.

TABLE 4. POPULATION BY AGE GROUPS WITHIN SHELBY COUNTY, 2013-2017

| | Total Population | Under 18 | | 18 to 6 | 4 | 65 and older | | |
|-----------|------------------|-----------|------|-----------|------|--------------|------|--|
| | # | # | % | # | % | # | % | |
| Shelby Co | 937,847 | 237,605 | 25.3 | 585,825 | 62.5 | 114,417 | 12.2 | |
| Tennessee | 6,597,381 | 1,497,647 | 22.7 | 4,086,378 | 61.9 | 1,013,356 | 14.9 | |

Note: Data are from source ¹.

TABLE 5. POPULATION BY AGE GROUPS WITHIN DESOTO COUNTY, 2013-2017

| | Total Population | Unde | Under 18 | | 18 to 64 | | 65 and older | |
|-------------|---------------------|---------|----------|-----------|----------|---------|--------------|--|
| | # | # | % | # | % | # | % | |
| DeSoto Co | 173,267 | 45,784 | 26.4 | 106,511 | 61.5 | 20,972 | 12.1 | |
| Mississippi | 2,986,220 | 726,301 | 24.3 | 1,822,892 | 61 | 437,027 | 14.6 | |

Note: Data are from source ¹.

TABLE 6. CHILDREN UNDER 18 BY RACE AND ETHNICITY IN SHELBY AND DESOTO COUNTIES, 2013-2017

| | Caucas | ian | African Am | erican | Hispan | nic |
|-----------|--------|------|------------|--------|--------|------|
| | # | % | # | % | # | % |
| Shelby Co | 74,387 | 20.1 | 138,310 | 27.6 | 23,953 | 10.1 |
| DeSoto Co | 29,047 | 24.1 | 13,157 | 29.9 | 3,127 | 6.8 |

Note: Data are from source ¹.

Overall Health and Premature Deaths

Adults with Poor Health

In both Shelby and DeSoto Counties over 15% of the adult population report "poor" to "fair" to describe their overall health status. In Shelby County, this is about 110,642 people and 17,735 people in DeSoto County. In Shelby County, adults report an average of 4.4 days of poor physical health each month, while in DeSoto County, an average of 3.4 days of poor physical health are reported each month. ^{2,3}

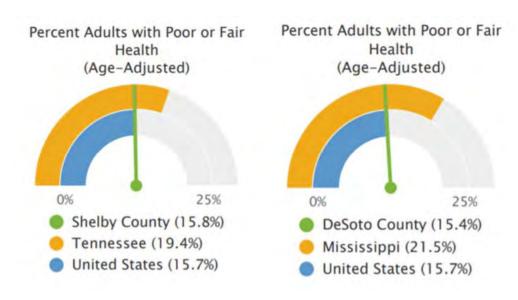


FIGURE 1. ADULTS WITH POOR OR FAIR HEALTH WITHIN SHELBY AND DESOTO COUNTIES, 2006-2012.1

Disabilities

The percentage of adults in both Shelby and DeSoto Counties with a disability is lower than the percentage within their respective states. In Shelby County, 12.6% (116,589 people) have a disability, where 11.7% (20,092 people) in DeSoto County have a disability.

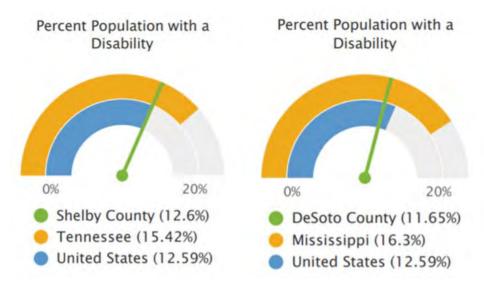


FIGURE 2. POPULATION WITH A DISABILITY WITHIN SHELBY AND DESOTO COUNTIES, 2013-2017.1

Life Expectancy

Life expectancy is the average number of years a person can expect to live. Life expectancy for Shelby County is 75.8 years, which is slightly lower than that of the 76.1 years for Tennessee. In DeSoto County, the life expectancy is 76.9 years compared to 74.8 years for Mississippi. Hispanics have a higher life expectancy than both Caucasians and African Americans in both Shelby and DeSoto Counties.^{2,3}

TABLE 7. LIFE EXPECTANCY IN YEARS BY RACE AND LOCATION, 2018

| Shelby County | DeSoto County |
|---------------|------------------|
| 75.8 | 76.9 |
| 78 | 76 |
| 73 | 79 |
| 92 | 102 |
| | 75.8 78 73 |

Note: Data are from sources ^{2,3}.

Years of Potential Life Lost

There are multiple ways to measure premature deaths. For years of potential life lost, if the average life expectancy is 75 and someone dies before they reach 75 then the difference between their age and 75 is calculated. This difference is summed for the entirety of people who die before 75 during the period being measured and rates are calculated per 100,000 people. The rate of potential years lost for DeSoto County (8,000) is better than the rate for Mississippi (10,400), while Shelby County (9,900) is slightly worse than the rate for Tennessee (9,100).

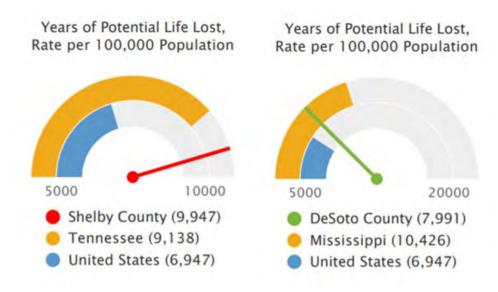


FIGURE 3. YEARS OF POTENTIAL LIFE LOST WITHIN SHELBY AND DESOTO COUNTIES, 2015-2017.¹

In Shelby County, African Americans have a rate of years of life lost 1.59 timesworse than Caucasians. African Americans in DeSoto County have a rate 1.6 times worse than Caucasians and 2.41 times worse than Hispanics.^{2,3}

TABLE 8. YEARS OF POTENTIAL LIFE LOST BY RACE AND LOCATION, 2018

| Race/Ethnicity | Shelby County | DeSoto County |
|------------------|---------------|---------------|
| All | 9,900 | 8,000 |
| Caucasian | 7,700 | 8,900 |
| African American | 12,300 | 6,800 |
| Hispanic | 5,100 | 4,800 |

Note: Data are from sources ^{2,3}. Rates are per 100,000 people.

Premature Deaths

Premature mortality refers to the number of deaths that occurred for people who were younger than 75 years of age, per 100,000 adults. In Shelby and DeSoto Counties, the premature mortality rate is 470 and 400, respectively. Shelby County's rate is slightly higher than Tennessee's rate at 450, while DeSoto County is much less than Mississippi's premature mortality rate of 500.^{2,3}

Racial disparities exist in both Shelby and DeSoto Counties. In Shelby County, Caucasians have a premature death rate 1.68 times worse than Hispanics. African Americans have premature death rate 1.54 times the rate of than Caucasians and 2.59 times that of Hispanics. In DeSoto County, Caucasians have a premature death rate 2.38 times that of Hispanics. African Americans have a premature death rate 1.9 times the rate of Hispanics.^{2,3}

Table 9. Premature Mortality Rate by Race and Location, 2018

| Race/Ethnicity | Shelby County | DeSoto County |
|------------------|---------------|---------------|
| All | 470 | 400 |
| Caucasian | 370 | 430 |
| African American | 570 | 350 |
| Hispanic | 220 | 180 |

Note: Data are from sources ^{2,3}. Rates are per 100,000 people.

Cardiovascular Disease

The number one leading cause of death in the United States is cardiovascular disease, which encompasses high blood pressure/hypertension, heart disease, and stroke.⁴ In 2017, there were 28.2 million adults or 11.5% of the adult population diagnosed with heart disease. There were 647,457 deaths due to cardiovascular disease, a rate of death 198.8 per 100,000 persons.⁵ Cardiovascular disease accounted for 6.7% of physician office visits and 5.9% of all emergency department visits in this same year. Concerning the racial breakdown among the prevalence of coronary heart disease for the populations: 6.5% of Caucasians, 6.3% of Hispanics, and 3.7% of African Americans have heart disease.⁶

Heart Disease

Heart disease is the number one cause of death in Shelby County and the second leading cause of death in DeSoto County. In 2017, heart disease accounted for 22.3% (1,842 people) of all deaths in Shelby County and 22% (313 people) of all deaths in DeSoto County.^{7,8}

Six percent (31,293 people) of all adults in Shelby County have heart disease, and of the county's Medicare population, 26.5% (23,442 adults) have been diagnosed with this condition. While the mortality rate for Shelby County is less than the rate for Tennessee, it is slightly higher than the rate for the United States.¹

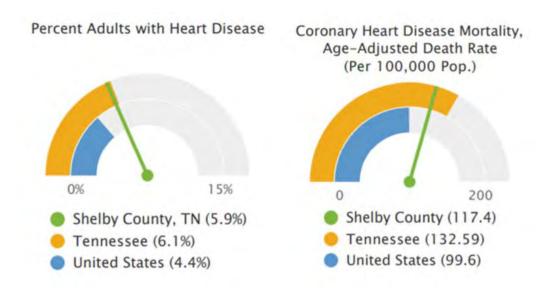


FIGURE 4. ADULTS WITH HEART DISEASE WITHIN SHELBY COUNTY, 2012-2016.1

Six percent (4,841 people) of DeSoto County adults have heart disease, and of the county's Medicare population, 31% (6,204 adults) have been diagnosed with this condition. DeSoto

County's heart disease mortality rate is 1.45 times worse than the U.S. and 1.3 times worse than Mississippi. DeSoto County has an average of 1,273 people die each year from coronary heart disease.¹

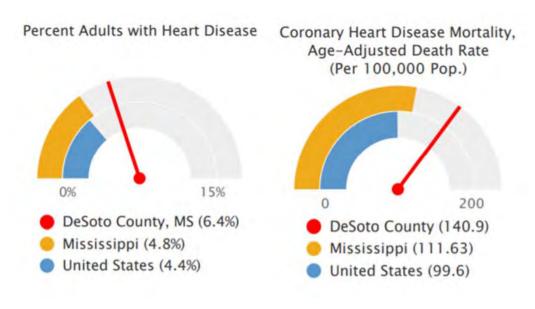


FIGURE 5. ADULTS WITH HEART DISEASE WITHIN DESOTO COUNTY, 2012-2016.1

Current data from 2017 indicates that Caucasians in DeSoto County die at a rate 1.96 times greater than African Americans. This disparity is greater than across Mississippi where Caucasians die from heart disease at a rate 1.38 times greater than African Americans.^{8, 9}

TABLE 10. HEART DISEASE MORTALITY RATES BY RACE AND LOCATION, 2012-2016

| Race/Ethnicity | Shelby County | Tennessee | DeSoto County ⁸ | Mississippi ⁹ |
|------------------|---------------|-----------|----------------------------|--------------------------|
| All Races | 117.4 | 132.5 | 174.5 | 265.9 |
| Caucasian | 112.9 | 134.3 | 209 | 305.3 |
| African American | 124.6 | 136.0 | 106.5 | 220.6 |
| Hispanic | 38.5 | 42.1 | - | - |

Note: Data are from sources ¹. Rates are per 100,000 people.

Within both Shelby and DeSoto Counties, heart disease mortality rates are also different for males and females. In Shelby County, males die 1.9 times greater than that of females, while in DeSoto County males die of coronary heart disease at a rate 1.54 times higher than females.¹

Across the United States, the disparity rate between genders is slightly different with accounting for race. Caucasian males die of heart disease 1.8 times greater than Caucasian females and African American males die 1.44 times greater than that of African American females.⁵

TABLE 11. HEART DISEASE MORTALITY RATES BY GENDER AND LOCATION, 2012-2016

| Gender | Shelby County | Tennessee | DeSoto County | Mississippi |
|--------|---------------|-----------|---------------|-------------|
| Male | 163.2 | 175.9 | 175.3 | 153.4 |
| Female | 85.8 | 98.6 | 113.2 | 79.2 |

Note: Data from sources ¹. Rates are per 100,000 people.

High Blood Pressure/Hypertension

Hypertension is the 13th leading cause of death across the nation contributing to 35,316 deaths in 2017.⁵ The mortality rate was 10.8 per 100,000 people. Almost a third of adults over 20 years of age, 33.2%, are on medications for hypertension, and this condition accounts for 32.8 million office visits and 1.0 million emergency department visits each year.¹⁰

In Shelby County, 36% (245,721) of the adult population has high blood pressure, and of the county's Medicare population, 63% (55,265) has high blood pressure. In DeSoto County, 33% (37,858) of the adult population has high blood pressure, and of its Medicare population, 31% (6,204) has high blood pressure.¹

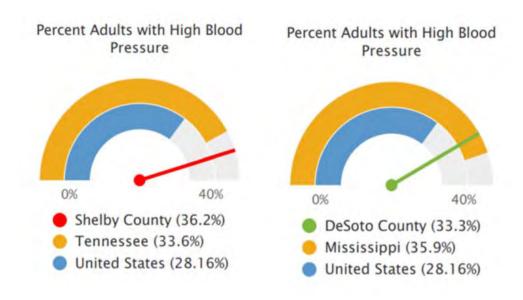


FIGURE 6. ADULTS WITH HIGH BLOOD PRESSURE WITHIN SHELBY AND DESOTO COUNTIES, 2006-2012.¹

Death rates attributed to high blood pressure for all races across Tennessee is 264.6 and nationally, 221.7.¹¹ Shelby County's rate of death due to hypertension is greater than both the state and national rates. Hypertension is the eighth leading cause of death in DeSoto County accounting for 2.6% of all deaths in 2017.

Nationally African Americans have high blood pressure at a rate 1.36 times greater than Caucasians. Specifically African American females have high blood pressure 1.56 times greater than Caucasian females. The racial disparity further increases when it comes to those that die from hypertension. In Shelby County, African Americans die at twice the rate of Caucasians from hypertension. In DeSoto County in 2017, Caucasians died of hypertension at 1.7 the rate of African Americans. This trend of Caucasians dying at a higher rate than African Americans in DeSoto County is not consistent with the state rates where African Americans die at a slightly higher rate than Caucasians from hypertension.

TABLE 12. HYPERTENSION MORTALITY RATES BY RACE WITHIN SHELBY COUNTY, 2014-2016, AND DESOTO COUNTY, 2017

| Race/Ethnicity | Shelby County | Tennessee | DeSoto County | Mississippi |
|------------------|---------------|-----------|---------------|-------------|
| All | 299.5 | 264.6 | 20.7 | 18.4 |
| Caucasian | 209.1 | - | 24.1 | 17 |
| African American | 422.8 | - | 14.1 | 21.9 |

Note: Data are from sources ^{8,11}. Rates are per 100,000 people.

Stroke/Cerebrovascular Disease

Stroke is the fifth leading cause of death in the United States and accounted for 146,383 deaths in 2017. The stroke mortality death rate is 44.9 per 100,000 people. As of 2017, 7.8 million adults have had a stroke. Stroke symptoms accounted for 2.2 million visits to a primary care office, and produced 590,000 emergency department visits.¹²

In Shelby County in 2017, cerebrovascular disease or stroke contributed to 6.3% of all deaths (517 people) for the third top cause of death.⁷ In DeSoto County for this same year, cerebrovascular disease was the sixth leading cause of death, where 70 people died, accounting for 4.9% of all deaths.⁸ The mortality rate for stroke is higher in Shelby County (51.2) than in DeSoto County (35.8).

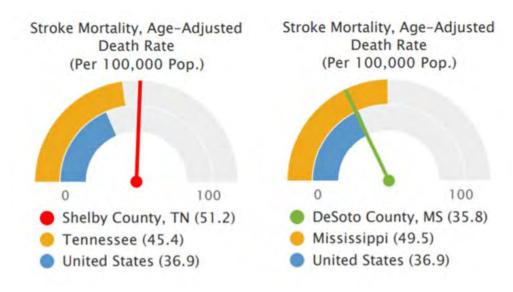


FIGURE 7. STROKE MORTALITY RATE WITHIN SHELBY AND DESOTO COUNTIES, 2012-2016.

Nationally, African Americans have strokes 1.59 times greater than Caucasians. Between both counties, 505 people die from stroke every year. African Americans die from stroke at a rate 1.7 times higher than that of Caucasians in Shelby County, and in DeSoto County they die at a rate 1.3 times greater than Caucasians.¹

TABLE 13. STROKE MORTALITY RATES BY RACE AND LOCATION, 2012-2016

| Race/Ethnicity | Shelby County | Tennessee | DeSoto County | Mississippi |
|------------------|---------------|-----------|---------------|-------------|
| All | 51.2 | 45.4 | 35.8 | 49.5 |
| Caucasian | 38.7 | 43.1 | 34.4 | 44.8 |
| African American | 67.0 | 63.1 | 45.6 | 60.9 |

Note: Data are from sources ¹. Rates are per 100,000 people.

When adding in gender, the rates for stroke are higher but also differ among genders. African American males die 1.46 greater than Caucasian males while African American females dies 1.65 times greater than Caucasian females.⁶

TABLE 14. STROKE MORTALITY RATES BY GENDER AND LOCATION, 2012-2016

| Gender | Shelby County | Tennessee | DeSoto County | Mississippi |
|--------|---------------|-----------|---------------|-------------|
| Male | 55.8 | 46.2 | 32.4 | 51.6 |
| Female | 47.2 | 43.9 | 36.9 | 46.9 |

Note: Data are from sources ¹. Rates are per 100,000 people.

Cancer (all types)

Cancer, (of all types), is the second leading cause of death within the United States, with 23.2 million people or 9.4% of the population being diagnosed with cancer. The rate of cancer deaths is 183.9 per 100,000 people,⁵ resulting in approximately 600,000 people dying from cancer each year. Cancer accounts for 24.7 million physician office visits annually.^{7,13}

Cancer is the second leading cause of death in Shelby County and primary cause of death in DeSoto County.¹ In 2017, cancer contributed to 23% of all deaths (326 people) in DeSoto County and 20.2% of all deaths (1,665 people) in Shelby County.^{7,8}

In Shelby County, the cancer incidence rate per 100,000 people is 520.5 and the mortality rate for all cancers is 192.2 per 100,000 people.¹

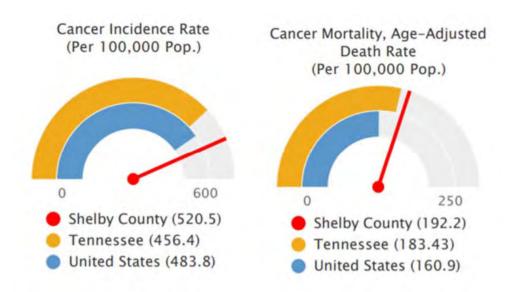


FIGURE 8. CANCER INCIDENCE AND MORTALITY RATES WITHIN SHELBY COUNTY, 2011 – 2015.¹

In DeSoto County, the cancer incidence rate per 100,000 people is 503.5 and the mortality rate is $199.5 \text{ per } 100,000 \text{ people.}^1$

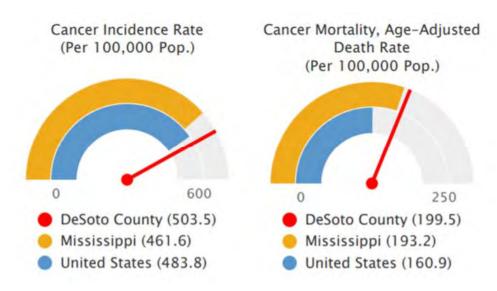


FIGURE 9. CANCER INCIDENCE AND MORTALITY RATE WITHIN DESOTO COUNTY, 2011 – 2015.1

While the prevalence (morbidity) rates for all cancers among African Americans and Caucasians are comparable in both counties, there is a smaller difference among cancer mortality rates. In Shelby County, African Americans die from cancer at a rate 1.35 times greater than Caucasians, while in DeSoto County Caucasians die at a rate 1.07 times greater than African Americans.

TABLE 15. ALL CANCER MORBIDITY AND MORTALITY RATES BY RACE AND LOCATION, 2011-2015

| Race/Ethnicity | Shelby County – Morbidity | Shelby County – Mortality | DeSoto County – Morbidity | DeSoto County – Mortality |
|------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| All | 520.5 | 192.2 | 503.5 | 199.5 |
| Caucasian | 436.3 | 168.3 | 452.5 | 205.2 |
| African American | 465.2 | 226.9 | 413.2 | 191.1 |
| Hispanic | 289.2 | 91.1 | 302.4 | - |

Note: Data are from sources ¹. Rates are per 100,000 people.

There is a slight difference of cancer mortality rates between the genders, with males dying from cancer at a rate 1.5 times greater than that of females in both Shelby and DeSoto Counties.¹

TABLE 16. ALL CANCER MORTALITY RATES BY GENDER AND LOCATION, 2011-2015

| Gender | Shelby County | Tennessee | DeSoto County | Mississippi |
|--------|---------------|-----------|---------------|-------------|
| Male | 237.22 | 226.88 | 245.89 | 245.02 |
| Female | 162.48 | 151.6 | 166.86 | 156.27 |

Note: Data are from sources ¹. Rates are per 100,000 people.

Breast Cancer

Between 2012 and 2016, in Shelby County there were 3,432 new cases of breast cancer with a prevalence rate of 129 for every 100,000 women. Over those years, 770 people died of breast cancer for a death rate of 28 per 100,000 people.¹⁶

Between 2012 and 2016 in DeSoto County, there were 532 new cases of breast cancer. ¹⁶ The incidence rate for breast cancer in DeSoto County is 114.9, per 100,000 persons. ¹ In DeSoto County 22 out of every 100,000 women die from breast cancer. ¹⁶

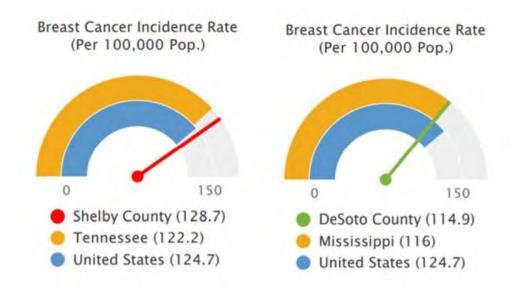


FIGURE 10. Breast Cancer within Shelby and DeSoto Counties, 2011 - 2015.

The incidence rate of breast cancer is similar across races in Shelby County. Caucasians have a rate of 128.7 and African Americans have a rate of 128.5 per 100,000 women. The rates for Shelby County are similar to the national rates overall and by race where African Americans had breast cancer at a rate of 124 and Caucasians had a rate of 126.1. In DeSoto County, there is little difference between African Americans and Caucasian concerning the rate of new breast cancer incidences. ¹⁶

While the incidence rates between African American and Caucasian women show little disparity, there is a very noticeable disparity when it comes to rate of death due to breast cancer. In Shelby County, African American women die at a rate 1.4 times greater than Caucasian women do, and in DeSoto County, they die at a rate 1.55 times greater than Caucasian women do. This difference is similar to the racial difference nationally between African Americans and Caucasians. ¹⁶

TABLE 17. Breast Cancer Incidence and Death Rates by Race and Location, 2012-2016

| | Shelby Co | ounty | DeSoto Co | ounty | United S | States |
|------------------|-----------|-------|-----------|-------|-----------|--------|
| Race/Ethnicity | Incidence | Death | Incidence | Death | Incidence | Death |
| | Rate | Rate | Rate | Rate | Rate | Rate |
| All | 129 | 28 | 112 | 22 | 125.2 | 20.6 |
| Caucasian | 128.7 | 23.6 | 113.4 | 21.1 | 126.1 | 20.1 |
| African American | 128.5 | 33.2 | 99.1 | 32.7 | 124 | 28.1 |
| Hispanic | 101.1 | - | - | - | 93.9 | 14.2 |

Note: Data are from source ¹⁶. Rates are per 100,000 people.

Breast Cancer Screening

Mammography screening is a vital tool in order to detect breast cancer at an early stage. In 2015 across the nation, 65.3% of women aged 40 and above received a mammogram in the last two years. These visits accounted for 17.3 million physician office visits.¹⁴

In Shelby County, 31% of all women receive a mammography screening, an amount less than the 40% of women across Tennessee who got a screening. In DeSoto County, 33% of women received a screening, which is slightly lower than 38% of all women across Mississippi. In both counties, Caucasian and African American women were more likely get a mammography screening than Hispanic women were.^{2,3} Concerning Medicaid recipients, there is a higher percentage rate of mammography screening among women with Medicaid than those who do not have Medicaid. Fifty-seven percent of Medicare recipients in Shelby County and 59% of those in DeSoto County received a mammogram every two years.¹

TABLE 18. Breast Cancer Screening Percentages by Race and Location, 2015

| Race/Ethnicity | Shelby County | Tennessee | DeSoto County | Mississippi |
|------------------|---------------|-----------|---------------|-------------|
| All | 31% | 40% | 33% | 38% |
| Caucasian | 31% | - | 32% | - |
| African American | 30% | - | 38% | - |
| Hispanic | 25% | - | 31% | - |

Note: Data are from sources ^{2,3}. Rates are per 100,000 people.

Colon and Rectal Cancer

The incidence rate of colon and rectal cancer in both Shelby and DeSoto County is 43, but Shelby County's rate is higher than both the state and national rates. The rate of death from colon and rectal cancer is 19 per 100,000 people in Shelby County and 14 per 100,000 in DeSoto County.

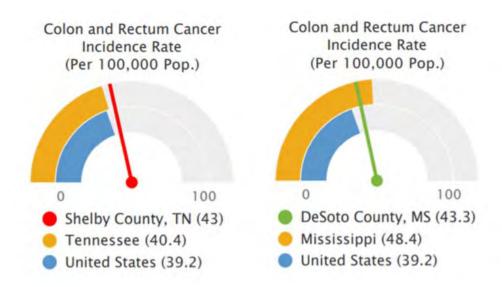


Figure 11. Colon and Rectum Cancer within Shelby and DeSoto Counties, 2012-2015.¹

In Shelby County, African Americans get colorectal cancer at a rate slightly higher than Caucasians, and males regardless of race get this type of cancer more often than females. Specifically, African American males get colorectal cancer 1.52 times more frequently than Caucasian males.

TABLE 19. RATE OF NEW COLORECTAL CANCERS BY GENDER AND RACE IN SHELBY COUNTY, 2012-2016

| Shelby County | Shelby County | Shelby County |
|---------------|---------------------------|---|
| All | Male | Female |
| 43 | 50.5 | 37.7 |
| 37.1 | 41.6 | 32.9 |
| 50.1 | 63.2 | 42.1 |
| 28 | - | |
| | All 43 37.1 50.1 | All Male 43 50.5 37.1 41.6 50.1 63.2 28 - |

Note: Data are from source ¹⁶. Rates are per 100,000 people.

In DeSoto County, African Americans get colorectal cancer at a rate 1.56 times greater than Caucasians, and males regardless of race get this type of cancer more often than females at a

rate 1.38 higher. Specifically, African American males get colorectal cancer 1.64 times more frequently than Caucasian males, and African American females get colorectal cancer at a rate 1.45 times greater than Caucasian females.¹⁶

TABLE 20. RATE OF NEW COLORECTAL CANCERS BY RACE AND GENDER IN DESOTO COUNTY, 2012-2016

| Race/Ethnicity | DeSoto County | DeSoto County | DeSoto County |
|------------------|---------------|---------------|---------------|
| | All | Male | Female |
| All | 40 | 47.2 | 34 |
| Caucasian | 37.2 | 43.3 | 31.7 |
| African American | 58.1 | 71.3 | 45.9 |
| Hispanic | - | - | - |

Note: Data are from source 16. Rates are per 100,000 people.

The racial disparity is even greater when examinging rates of death in Shelby County due to colorectal cancer. African Americans die at a rate 1.64 greater than Caucasians. Males die at a rate of 1.64 times greater than females. African American males die 2.1 times more often from colorectal cancer than Caucasian males. ¹⁶ The racial and gender disparity of colorectal cancer death rates in DeSoto County is not as significant as it is in Shelby County.

TABLE 21. RATE OF COLORECTAL CANCER DEATHS BY RACE AND GENDER IN SHELBY COUNTY, 2012-2016

| Race/Ethnicity | Shelby County All | Shelby County Male | Shelby County Female |
|------------------|----------------------|-----------------------|-------------------------|
| All | 19 | 24.7 | 15 |
| Caucasian | 14.9 | 17.3 | 12.7 |
| African American | 24.5 | 36.5 | 17.5 |
| Hispanic | - | - | - |

Note: Data are from source ¹⁶. Rates are per 100,000 people.

TABLE 22. RATE OF COLORECTAL CANCER DEATHS BY RACE AND GENDER IN DESOTO COUNTY, 2012-2016

| Race/Ethnicity | DeSoto County All | DeSoto County Male | DeSoto County Female |
|------------------|----------------------|-----------------------|-------------------------|
| All | 17 | 19.7 | 15.3 |
| Caucasian | 16.4 | 18.5 | 14.5 |
| African American | 21.6 | - | - |

Note: Data are from source ¹⁶. Rates are per 100,000 people.

Lung Cancer

Annually, there are 586 new cases of lung cancer in Shelby County and 126 new cases in DeSoto County. The lung cancer incidence rates are 65 and 78 per 100,000 persons for Shelby County and DeSoto County, respectively. For every 100,000 people, 49 in Shelby and 63 in DeSoto County die of lung cancer each year. 1,16

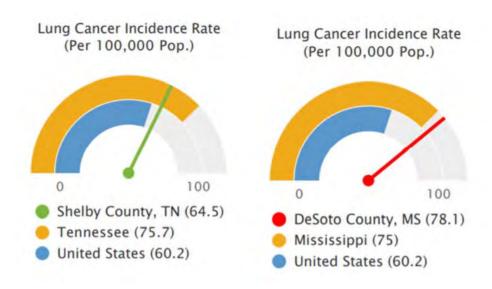


FIGURE 12. LUNG CANCER INCIDENCE RATES WITHIN SHELBY AND DESOTO COUNTIES, 2011-2015.¹

In Shelby County, African Americans have lung cancer at a rate slightly greater than Caucasians and rate of death 1.32 times greater than Caucasians. Males in Shelby County die from lung cancer at a rate 1.71 times greater than females, which is an even higher disparity between genders than nationally.¹⁶

TABLE 23. RATE OF NEW LUNG CANCERS BY RACE AND GENDER IN SHELBY COUNTY, 2012-2016

| Race/Ethnicity | Shelby County All | Shelby County Male | Shelby County Female | U.S. Male | U.S. Female |
|----------------|-------------------------|-----------------------|-------------------------|--------------|----------------|
| All | 63 | 79.1 | 51.7 | 69.1 | 51.7 |
| Caucasian | 59 | 67.3 | 53.5 | 68.9 | 53.4 |
| African | 66.2 | 93.7 | 48.7 | 80.4 | 47.7 |
| American | | | | | |
| Hispanic | 33.3 | - | - | 37.8 | 24.7 |

Note: Data are from sources ¹⁶. Rates are per 100,000 people.

Unlike Shelby County, Caucasians in DeSoto County have a lung cancer incidence and death rate greater than African Americans in DeSoto County. Caucasian have lung cancer at a rate 1.62 times higher than African Americans and their rate of death is 1.32 times greater than Caucasians. Males in DeSoto County die from lung cancer at a rate 1.93 times greater than females regardless of race. ¹⁶

TABLE 24. RATE OF NEW LUNG CANCERS BY RACE AND GENDER IN DESOTO COUNTY, 2012-2016

| Race/Ethnicity | DeSoto County | DeSoto County | DeSoto County | U.S. | U.S. |
|------------------|---------------|---------------|---------------|------|--------|
| | All | Male | Female | Male | Female |
| All | 78 | 95.8 | 63.7 | 69.1 | 51.7 |
| Caucasian | 83.7 | 102.6 | 69.2 | 68.9 | 53.4 |
| African American | 51.5 | 66.1 | 40.1 | 80.4 | 47.7 |
| Hispanic | - | - | - | 37.8 | 24.7 |

Note: Data are from sources ¹⁶. Rates are per 100,000 people.

TABLE 25. RATE OF LUNG CANCERS DEATHS BY RACE AND GENDER IN SHELBY COUNTY, 2012-2016

| Race/Ethnicity | Shelby County All | Shelby County Male | Shelby County Female |
|------------------|----------------------|-----------------------|-------------------------|
| All | 49 | 65.3 | 38.2 |
| Caucasian | 43.2 | 53.3 | 35.8 |
| African American | 57.9 | 83.2 | 41.5 |
| Hispanic | - | - | - |

Note: Data are from sources ¹⁶. Rates are per 100,000 people.

TABLE 26. RATE OF LUNG CANCERS DEATHS BY RACE AND GENDER IN DESOTO COUNTY, 2012-2016

| Race/Ethnicity | DeSoto County All | DeSoto County Male | DeSoto County Female |
|------------------|----------------------|-----------------------|-------------------------|
| All | 63 | 87.4 | 45.1 |
| Caucasian | 65.8 | 89.5 | 48.4 |
| African American | 49.7 | 81.8 | 27.8 |
| Hispanic | - | - | - |

Note: Data are from sources ¹⁶. Rates are per 100,000 people.

Prostate Cancer

Annually, there are 642 new cases of prostate cancer in Shelby County and 98 new cases in DeSoto County. The rate of prostate cancer (per 100,000) for Shelby County is 148 and 121 for DeSoto County. In Shelby County, the prevalence rate is 1.5 higher than the national rate. For every 100,000 men, 30 die of prostate cancer.^{1,13}

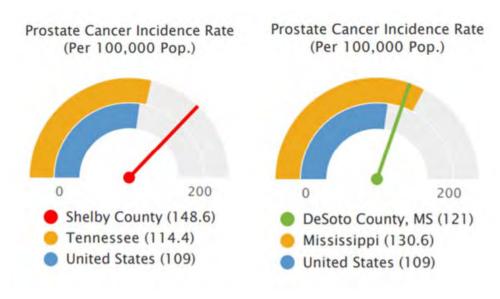


FIGURE 13. PROSTATE CANCER WITHIN SHELBY AND DESOTO COUNTIES, 2011-2015.1

Like many other cancers, there is a racial disparity in the incidence rate for prostate cancer. In Shelby County, the prostate cancer incidence rate for African Americans is 1.4 times higher than for Caucasians, and in DeSoto County, this rate is 2.1 times greater than Caucasians. ¹⁶ In Shelby County, African Americans die from prostate cancer at a rate almost 3 times greater than Caucasians. Nationally African Americans die 2.1 times more often than Caucasians from prostate cancer. ¹⁶

TABLE 27. PROSTATE CANCER INCIDENCE AND DEATH RATES BY RACE AND LOCATION, 2012-2016

| | Shelby County | | DeSoto Co | DeSoto County | | United States | |
|------------------|-------------------|---------------|-------------------|---------------|-------------------|---------------|--|
| Race/Ethnicity | Incidence Rate | Death Rate | Incidence Rate | Death Rate | Incidence Rate | Death Rate | |
| All | 142.1 | 30.4 | 120.4 | 18.5 | 104.1 | 19.2 | |
| Caucasian | 122.3 | 18.1 | 104.3 | 15.4 | 95.3 | 18 | |
| African American | 172.2 | 53 | 221.6 | - | 168.8 | 38.9 | |
| Hispanic | 82.5 | - | - | - | 86.8 | 15.8 | |

Note: Data are from sources ¹⁶. Rates are per 100,000 people.

Neurological Disease

With the increase in the aging population, 98.2 million is the projected population of people age 65 and older in 2060. With the exponential growth within this population there occurs an increase of health conditions that more commonly plague this group of individuals, including neurological diseases (i.e. Alzheimer Disease, Dementia, Parkinsons).¹⁸

In 2017, Alzheimer Disease was the sixth leading cause of deaths nationally. There were 121,404 people who died from the disease with a disease rate of 37.3 per 100,000. People with Alzheimer's make up 47.8% of all nursing home residents, 44.5% of all hospice patients, 32.3% of home health patients, and 41.9% of residential care community residents.¹⁹

Alzheimer's is the fifth leading cause of death in DeSoto and Shelby Counties.^{7,8} In Shelby County in 2017, 2.3% (437 deaths) of all deaths were due to Alzheimer's. ⁵ In DeSoto County, Alzheimer Disease contributed to 5% (76 deaths) of all deaths.⁹

There is a significant racial disparity between Caucasians and African Americans who have Alzheimer's in Desoto County. Caucasians (58.5) die from Alzheimer's at a rate 7.3 times greater than African Americans (8).8

Diabetes

In 2017, 83,564 people in the United States died from diabetes. Diabetes is the seventh leading cause of death across the country with a death rate of 25.7 per 100,000 people. Diabetes accounted for 11.5% of all physician office visits and 11.4% emergency room visits across the country in 2017.20

In Shelby County and DeSoto County diabetes is the seventh leading cause of death. In 2017, diabetes contributed to 3.4% of deaths in Shelby County and 4% of deaths (65 deaths) in DeSoto County.^{7,8} DeSoto County has a diabetes death rate of 36.4 per 100,000.⁸

Close to 98,000 people in Shelby and DeSoto Counties combined live with diabetes. Twelve percent (12%) of the population in Shelby County and 11% of DeSoto County live with diabetes. Shelby County's percentage of people living with diabetes is slightly greater than Tennessee (11.6%) and 1.28 times greater than the national percentage (9.3%). DeSoto County (11.2%) has a rate higher than the national percentage.¹

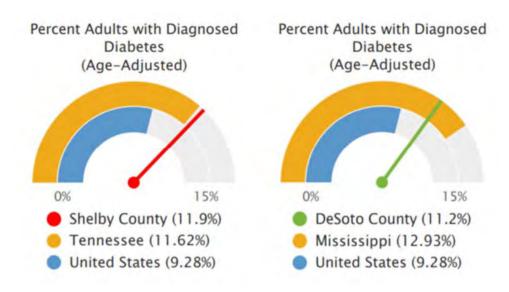


FIGURE 14. ADULTS WITH DIABETES WITHIN SHELBY AND DESOTO COUNTIES, 2015.¹

Of the Medicare populations, 27.9% in Shelby County and 28.6% in DeSoto County have diabetes. These percentages are similar to the national percentage of Medicare recipients who have diabetes 27.2%.¹

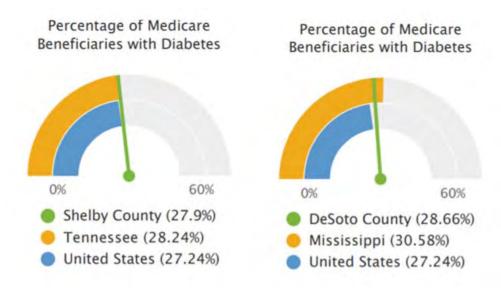


FIGURE 15. MEDICARE BENEFICIARIES WITH DIABETES WITHIN SHELBY AND DESOTO COUNTIES, 2017.1

Of the Medicare population with diabetes in both counties, 85% or more get their A1C checked annually. Recipients in DeSoto County are much better at getting an annual diabetic exam than those across Mississippi and the United States. Shelby County on the other hand, has a slightly smaller percentage of recipients who get an annual exam than those across Tennessee and the United States.¹

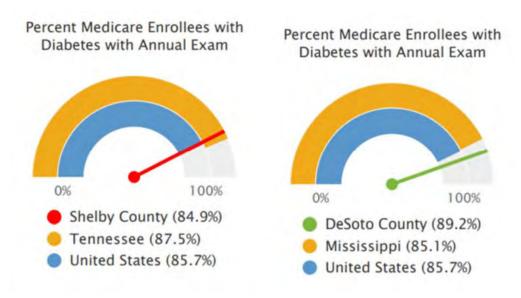


FIGURE 16. MEDICARE ENROLLEES WITH AN ANNUAL DIABETIC EXAM WITHIN SHELBY AND DESOTO COUNTIES, 2015.¹

While there is limited access to the racial data of residents in both Shelby and DeSoto Counties who have diabetes, national data indicates a racial and gender disparity across the country. Hispanics are 1.59 times more likely than Caucasians to have diabetes, and African American females are 1.98 times more likely than Caucasian females to have diabetes.⁶

Unintentional Injuries

Unintentional injuries are the fourth leading cause of death for Shelby County, DeSoto County and the United States in 2017. In Shelby County, 499 people died of unintentional injuries, contributing to 6% of all county deaths. In DeSoto County, 85 people died from unintentional injuries (6% of all deaths.)^{7,8} The death rate for unintentional injuries across the United States is 52.2 per 100,000 persons. Unintentional injuries account for 39.5 million visits to a primary care office and 29.2 million visits to an emergency department.^{4,21}

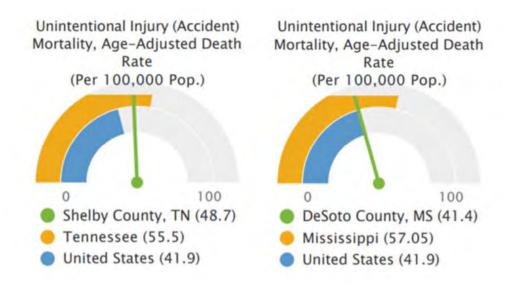


FIGURE 17. UNINTENTIONAL INJURY MORTALITY WITHIN SHELBY AND DESOTO COUNTIES, 2012-2016.1

The rate of deaths from unintentional injuries for males is twice the rate of females for Shelby and DeSoto Counties.

TABLE 28. UNINTENTIONAL INJURIES DEATHS BY GENDER AND LOCATION, 2012-2016

| Gender | Shelby County | Tennessee | DeSoto County | Mississippi | United States |
|---------|---------------|-----------|---------------|-------------|---------------|
| Males | 68.86 | 73.24 | 58.62 | 78.34 | 56.87 |
| Females | 31.99 | 39.42 | 26.73 | 38.01 | 27.98 |

Note: Data are from sources ¹. Rates are per 100,000 people.

Alcohol Related Deaths

The percentage of deaths associated with alcohol in Shelby County (15%) are lower than both Tennessee (22%) and the country (26%). In DeSoto County, 9% of all deaths are alcohol related compared to Mississippi (14%).^{2,3}

Pedestrian Motor Vehicle Accidents

The rate of accidents involving pedestrians and motor vehicles in Shelby County is 1.32 times greater than the United States and 1.64 times greater than Tennessee.¹

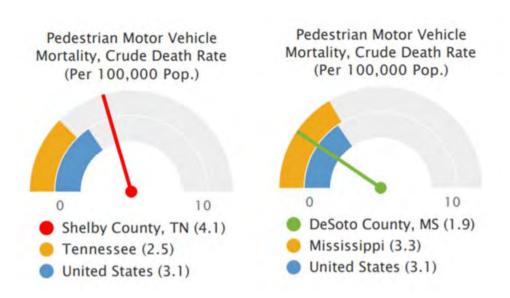


FIGURE 18. PEDESTRIAN MOTOR VEHICLE MORTALITY WITHIN SHELBY AND DESOTO COUNTIES, 2011-2015.¹

Motor Vehicle

Across the United States, the rate for motor vehicle deaths is 12.4 per 100,000 people. The death rate in both Shelby and DeSoto Counties from motor vehicle deaths is 13 per 100,000. In Shelby County, males (20.39 per 100,000) die from motor vehicle accidents at a rate 2.87 times greater than females (7.08 per 100,000).¹

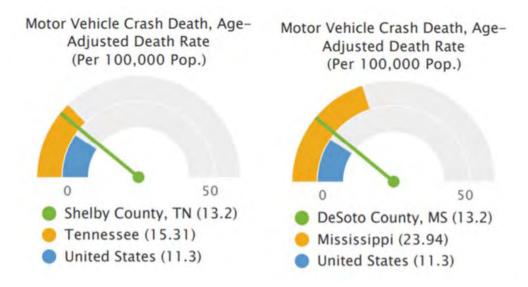


FIGURE 19. MOTOR VEHICLE CRASH DEATH RATE WITHIN SHELBY AND DESOTO COUNTIES, 2012-2016.1

Mental Health

There is great importance in assessing the mental health status of a community. Mental health plays a vital role affecting the overall health outcome of individuals and the community. Negative indicators of mental health are seen among high rates of suicide, depression, alcohol and substance abuse, where positive indicators of mental health are displayed with high rates of access to mental health providers, more utilization of mental health services, and an overall good perception of mental well-being.

Suicide

Across the United States in 2017, suicide was the 10th leading cause of death and accounted for 273,000 emergency department visits for suicide attempts. In 2017, 47,173 people died from suicide for a rate of 14.5 per 100,000 people nationally.²²

The rate of suicide mortality in Shelby County is 9.2 deaths per 100,000 people and 13.2 deaths per 100,000 people in DeSoto County. Shelby County's suicide rate is less than the rate for Tennessee (15.3) and the rate of the United States (13). The suicide rate for DeSoto County is on par with that for Mississippi (13.2) and for the United States (13). In 2017, suicide was the eleventh leading cause of death in DeSoto County where Caucasians died of suicide at a rate 3.11 times greater than African Americans. The suicide rate per 100,000 was 18.7 for Caucasians and 6.0 for African Americans.⁸

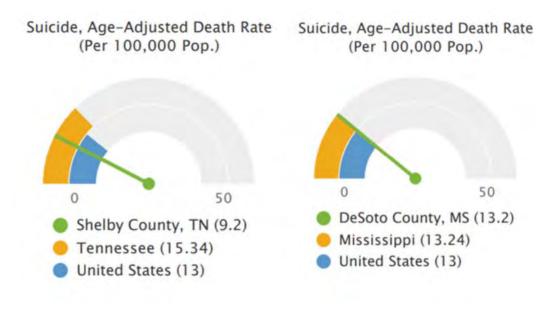


FIGURE 20. SUICIDE DEATH RATES WITHIN SHELBY AND DESOTO COUNTIES, 2012-2016. 1

There is a significant difference between suicide rates between genders. Across the nation, males have a suicide rate 3.6 times greater than that of females. For Tennessee, the rate of suicide for males is 4.0 times greater than that of females. The suicide mortality rate in Shelby County for males is 4.5 times higher than that of females.² In DeSoto County, males commit suicide at a rate 3.4 times greater than females, compared to Mississippi where males have a rate 4.07 times greater than females.¹

TABLE 29. SUICIDE RATES BY GENDER AND LOCATION, 2012-2016

| Gender | Shelby County | Tennessee | DeSoto County | Mississippi | U.S. |
|---------|------------------|-----------|------------------|-------------|------|
| All | 9.2 | 15.3 | 13.2 | 13.2 | 13 |
| Males | 15.8 | 25.3 | 20.8 | 22 | 20.7 |
| Females | 3.5 | 6.2 | 6.1 | 5.4 | 5.7 |

Note: Data are from sources ¹. Rates are per 100,000 people.

Poor Mental Health

Across the United States 3.9% of adults (aged 18 years and older) reported serious psychological distress in the past 30 days. Mental, behavioral and neurodevelopmental disorders accounted for 56.8 million visits to a physician office and 5.5 million visits to an emergency department in 2017.²³

In 2016, 14% of adults in Shelby County and 11% of adults in DeSoto County reported 14 or more days of poor mental health a month. Both counties are similar to their respective state's percentage of 14% for both Tennessee and Mississippi. ^{2,3} On average adults reported 3.8 mentally unhealthy days each month in DeSoto County and 4.5 days in Shelby County. ¹

Depression

Across the United States, individuals over the age of 12 years, 7.6% reported depression in any 2-week period. Depression accounted for 9.3% of physician office visits and 10.1% of visits to the emergency room.²⁴ Among the Medicare populations, 14.2% of Shelby County and 18% of DeSoto County enrollees reported being depressed. DeSoto is on par with the 17.7% of Mississippi enrollees who report being depression, while Shelby County's percentage is less than the 19.4% of Tennessee Medicare enrollees that reported being depressed.¹

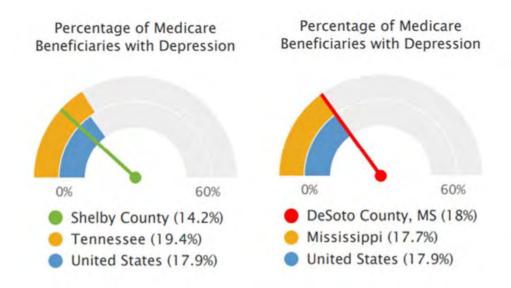


FIGURE 21. MEDICARE BENEFICIARIES WITH DEPRESSION WITHIN SHELBY AND DESOTO COUNTIES, 2017.¹

Mental Health Providers

There is a lack of mental health providers across the country and within the service areas of both Shelby and DeSoto Counties. The ratio of providers to residents is 740:1 in Shelby County and 1290:1 in DeSoto County. In Tennessee and Mississippi, the ratio is 700:1.^{2,3} Shelby County's rate of mental health providers is 1.49 times lower than the United States. DeSoto County's rate of mental health providers is 2.6 times less than the rate for the United States and 1.8 times lower than the rate for Mississippi.

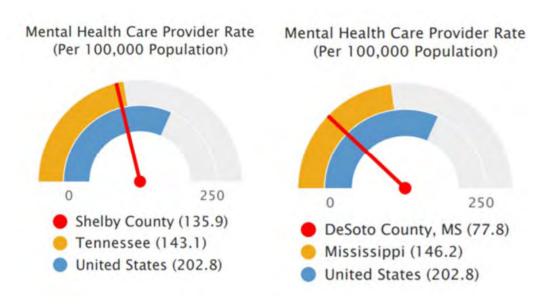


FIGURE 22. MENTAL HEALTH CARE PROVIDERS WITHIN SHELBY AND DESOTO COUNTIES, 2017.1

Drug and Alcohol Deaths

In Shelby County, the drug overdose rate is 21 deaths per 100,000 people, and the state of Tennessee has a rate of 24 per 100,000 people. In DeSoto County, there are 20 deaths for every 100,000 people, which is higher than the rate for Mississippi.¹

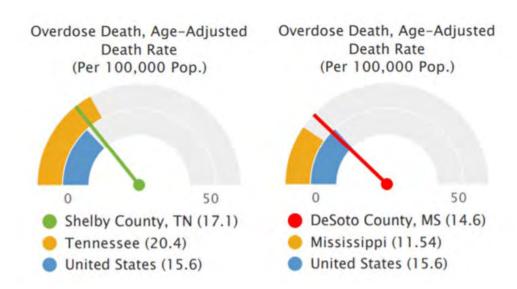


FIGURE 23. OVERDOSE DEATHS WITHIN SHELBY AND DESOTO COUNTIES, 2012-2016.1

Excessive alcohol use is also related to depression and suicide. Information from 2016 indicates that 13% of Shelby County and 16% of DeSoto County adults reported excessive drinking. In both states, the percentage is 14%.

The mortality rate for mental health and substance abuse disorders has increased steadily since 1980s. ¹⁷ In Shelby County the rate of deaths per 100,000 due to mental health and substance abuse is 15.8 compared to 17.5 across Tennessee. Both Shelby County and Tennessee have rates higher than the national rate of 13.4. In DeSoto County, the rate is 10.6, which is lower than both the state of Mississippi (12.4) and the national rate. ¹⁷

Violent Crime

Manifestations and prevalence of violent crimes indicate how threatening the social environment is on a person's well-being, and the incidence of violent crimes has a negative effect on health outcomes. Violent crime includes homicide, rape, assault, aggravated assault, and robbery. In 2017, within the United States there were 1.6 million emergency department visits due to assaults.²⁵

In Shelby County, the violent crime rate is 1,286.1 per 100,000 people. In DeSoto County, this rate is 186.9. The rate for Shelby County is 2.7 times higher than Tennessee's rate. Data from 2017 shows the violent crime rate increased to 1,518.2 in Shelby County.⁷ DeSoto County's rate is much lower than the rate for Mississippi and lower than the United States.¹

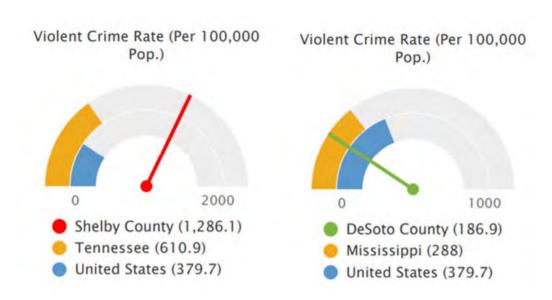


FIGURE 24. VIOLENT CRIME RATE WITHIN SHELBY AND DESOTO COUNTIES, 2012-2014.1

Homicides

Homicide is the 8th leading cause of death (195 deaths) in Shelby County, and the 14th cause of death (14 deaths) in DeSoto County.^{7,8} The rate of homicides for Shelby County is 2.57 times greater than Tennessee and 3.4 times greater than the U.S.¹

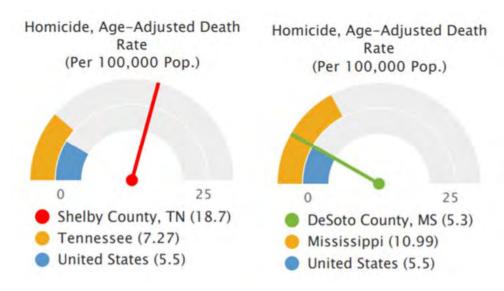


FIGURE 25. HOMICIDE RATE WITHIN SHELBY AND DESOTO COUNTIES, 2012-2016.¹

There is a stark racial disparity between homicide crime victims in both counties. In Shelby County, African Americans are 7.26 times more likely than Caucasians and 2.37 times more likely than Hispanics to die from homicide. In DeSoto County, African Americans die from homicide 3.3 times greater than Caucasians. There is also a gender disparity in crime victims in Shelby and DeSoto County. Males in Shelby County are 6 times more likely to die from homicide than females. 1

TABLE 30. HOMICIDE RATES BY RACE WITHIN SHELBY COUNTY, 2012-2016, AND DESOTO COUNTY, 2018

| Race/Ethnicity | Shelby County | DeSoto County |
|------------------|---------------|---------------|
| All | 18.7 | 5.3 |
| Caucasian | 4 | 5 |
| African American | 29.05 | 16.8 |
| Hispanic | 12.25 | |

Note: Data are from sources ^{1,8}. Rates are per 100,000 people.

TABLE 31. HOMICIDE RATES BY GENDER AND LOCATION, 2012-2016

| Gender | Shelby County | Tennessee | DeSoto County | Mississippi |
|---------|---------------|-----------|---------------|-------------|
| Males | 32.87 | 11.47 | 8.7 | 18.12 |
| Females | 5.44 | 3.1 | - | 4.09 |
| | | | | |

Note: Data are from sources ¹. Rates are per 100,000 people.

Firearm Fatalities

Across the United States, the firearm homicide rate is 4.5 deaths per 100,000 persons.²⁵ Shelby County has a rate of firearm fatalities (24 deaths per 100,000) that is 1.4 greater than Tennessee (17 deaths per 100,000). DeSoto County's firearm fatality rate (15 deaths per 100,000) is less than Mississippi's (19 deaths per 100,000).^{2,3}

Maternal, Infant, and Child Health

Adequate Prenatal Care

Access and utilization of adequate prenatal care helps to reduce the risk of complications before, during and after pregnancy. The lack of prenatal care contributes to maternal complications, which is the 3rd leading cause of infant deaths in the U.S.⁴ Over one third (39%) of all pregnant women in Shelby County do not receive adequate prenatal care. This is 2.2 times worse than the United States.¹

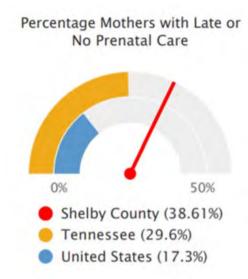


FIGURE 26. MOTHERS WITH LATE OR NO PRENATAL CARE WITHIN SHELBY COUNTY, 2007-2010.1

In Shelby County in 2017, 64% of Caucasian women received adequate prenatal care compared to only 48% of African Americans. In DeSoto County in 2017, 73% of Caucasian received prenatal care compared to 68% of non-Caucasians. ^{26,27}

Premature Births

In Shelby County, 13% of all live births are born preterm. The premature birth rate for Shelby County is 2.2 times worse than the United States and 1.3 times worse than the rate for Tennessee. Also, within Shelby County the percentage of preterm births for African Americans is 1.5 times that of Caucasians.^{2,3} The percentage of premature births in 2017 for DeSoto County was 10.5%, and African Americans had premature births 1.3 times higher than that of Caucasians.^{26,27}

TABLE 32. PERCENT OF PREMATURE BIRTHS BY RACE AND LOCATION, 2017

| Race/Ethnicity | Shelby County | DeSoto County |
|------------------|---------------|---------------|
| All | 13 | 10.5 |
| Caucasian | 10 | 9.6 |
| African American | 15 | 12.9 |

Note: Data are from sources ^{26,27}.

Low Birthweight Babies

Low birth weight is the second leading cause of infant deaths across the US.⁴ Shelby County has a rate of low birthweight babies 1.36 worse than the US and 1.21 worse than Tennessee. Since 2006, the percentage of low birth weight babies in Shelby County has remained the same, 11 to 12% of all live births are born low weight.²⁸

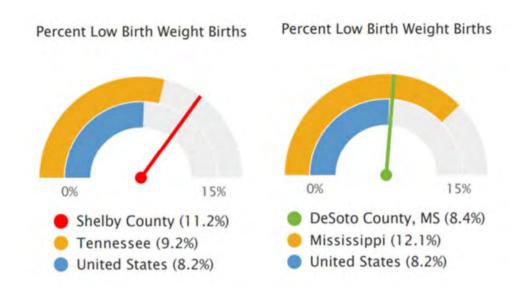


FIGURE 27. LOW BIRTH WEIGHT BIRTHS WITHIN SHELBY AND DESOTO COUNTIES, 2006-2012.1

In Shelby County, the percentage of babies with low birth weight is worse for African Americans who have low birth weight babies 2.1 times greater than that of Caucasians and 2.58 times that of Hispanics.^{2,3} Since 2013, 8 to 9% of babies in DeSoto County were born with low birth weight. African Americans had low birth weight babies 1.79 times higher than Caucasians and 2.26 times higher than Hispanics.¹ Across the state of Mississippi, 12% of babies are born with low birth weight.^{2,3}

TABLE 33. PERCENT OF BABIES BORN WITH LOW BIRTH WEIGHT BY RACE AND LOCATION, 2017

| Race/Ethnicity | Shelby County | DeSoto County |
|------------------|---------------|---------------|
| All | 12 | 9 |
| Caucasian | 7 | 7 |
| African American | 15 | 13 |
| Hispanic | 7 | 5 |

Note: Data are from sources ^{2,3}.

Infant Mortality

National infant mortality rate for the US in 2017 was 5.79 per 1,000 births,⁴ and this rate has implications of the medical, social and environmental factors that affect an infant's health, well-being, and ability to survive and thrive the first year of his/her life. Although Shelby County's infant mortality rate has decreased from 13.8 per 1,000 babies in 2006 to 9.3 in 2016, this county still possesses an infant mortality rate 1.92 times greater than the United States and 1.5 times higher than Tennessee.²⁸

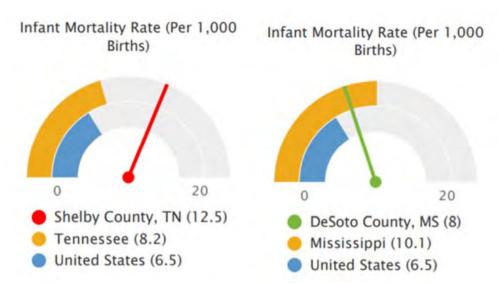


FIGURE 28. INFANT MORTALITY RATES WITHIN SHELBY AND DESOTO COUNTIES, 2006-2010.1

There exists a racial disparity for infant mortality in both Shelby and DeSoto Counties. African American babies in Shelby County die at a rate 3.2 times higher than Hispanic babies and 2.6 higher than Caucasian babies.^{2,3} Since 2006, the rate of infant mortality has decreased for both African Americans and Hispanics, but has stayed the same for Caucasians in both counties.^{17,29} In DeSoto County, African American babies die at a rate 1.7 times greater than Caucasian babies.^{2,3}

TABLE 34. INFANT MORTALITY RATES BY RACE AND LOCATION, 2018

| Race/Ethnicity | Shelby County | DeSoto County |
|------------------|---------------|---------------|
| All | 12.5 | 8 |
| Caucasian | 5 | 6.8 |
| African American | 13 | 12 |
| _ Hispanic | 4 | <u>-</u> |

Note: Data are from sources ¹. Rates are per 1,000 births.

Child Mortality

The child mortality rate has implications of the medical, social and environmental factors that affect a child's health, well-being, and ability to survive and thrive throughout childhood and adolescence. The child mortality rate for Shelby County is 80 deaths per 100,000 children, a rate which is higher than the mortality rate across Tennessee of 60 deaths per 100,000 children. Also in Shelby County, African American children have a mortality rate of 100, and die 2 times more than the rate of Caucasian children and Hispanic children, which both have a mortality rate of 50. The child mortality rate for DeSoto County (40) is half that for the state of Mississippi (80). The child mortality rate for both African Americans and Caucasians is the same within DeSoto County.^{2,3}

Lung and Respiratory Diseases

Across the country, chronic lower respiratory disease was the fourth leading cause of death in 2017 with a death rate of 49.2 per 100,000 people. Chronic Obstructive Pulmonary Disease (COPD), which includes bronchitis and emphysema, contributed to 5.6% of all emergency department visits and 3.6% of all visits to primary care offices. There were a total of 8.6 million people with bronchitis (3.5%) and 3.4 million (1.4%) people with emphysema.⁴ Other chronic lower respiratory diseases (excluding asthma) rate is 45.8 deaths per 100,000 population.³⁰

In 2017, lung and respiratory disease is the sixth leading cause of death in Shelby County⁷ and third leading cause of death in DeSoto County.⁸ Rate of death from lung disease per 100,000 people is 37.6 in Shelby County and 59.6 in DeSoto County. The rate is much greater in DeSoto County than in both Mississippi (56.1) and the United States (41.3) while the rate in Shelby County is less than both the national rate and for Tennessee (53.4).¹

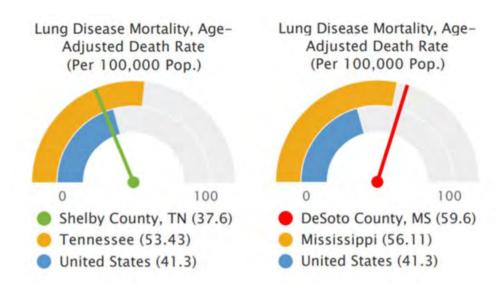


FIGURE 29. LUNG DISEASE MORTALITY WITHIN SHELBY AND DESOTO COUNTIES, 2012-2016.1

Caucasians have a much higher rate of lung disease than African Americans. In Shelby County, Caucasians (44.7) have lung disease 1.6 times greater than African Americans (27.8). Across Tennessee and Mississippi, Caucasians have lung disease 1.74 and 1.9 greater than African Americans, respectively. DeSoto County has a rate of lung disease 1.44 times worse than the rate for the US.⁸

Smoking

In Shelby County, 21% of adults smoke compared to 22% across Tennessee. In DeSoto County 19% of adults smoke, which is less than 23% of adults across Mississippi.^{2,3}

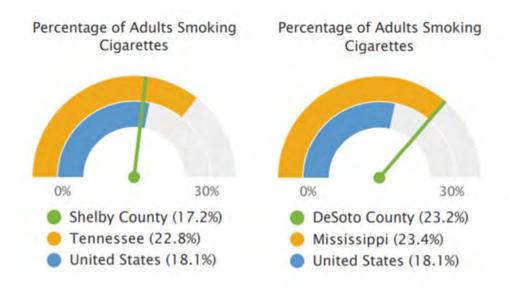


FIGURE 30. ADULTS SMOKING CIGARETTES WITHIN SHELBY AND DESOTO COUNTIES, 2006-2012.1

Asthma

In 2017, there are 19 million adults (7.7%) and 6.2 million children (8.4%) with asthma. Asthma accounted for 7.1% of physician office visits and 10.1% of emergency room visits. In 2017, 3,564 people died of asthma at a rate of 1.1 per 100,000 people.³¹

In Shelby County, 10.1% (53,969) of adults have asthma. The rate for Shelby County is lower than both the state (10.7%) and national percentage (13.4%) of adults with asthma. On the other hand, the percentage of adults who have asthma for DeSoto County (13.6%) is greater than both Mississippi (12%) and the national rate.¹

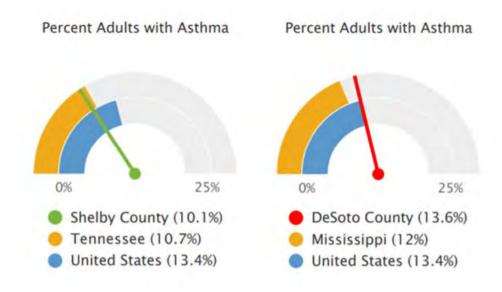


FIGURE 31. ADULTS WITH ASTHMA WITHIN SHELBY AND DESOTO COUNTIES, 2011-2012.¹

Liver and Kidney Disease

Liver

Within the United States 4.5 million adults, or 1.8% of the population, live with liver disease. In 2017, 41,743 people died from this disease for a death rate of 12.8 per 100,000 people.³² Liver disease was the 13th cause of death in DeSoto County with a rate of 10.1 per 100,000 people.⁸

Kidney Disease

There are 5.1 million adults in the United States (2.1% of the population) that have kidney disease. The death rate for kidney disease is 15.5 per 100,000. In 2017, 50,633 people died from kidney-related illnesses making kidney disease the 9th leading cause of death in the nation.³³

Kidney disease was the 11th cause of death in Shelby County in 2017 contributing to 1.7% (144) of all deaths in the county.⁷ Kidney disease was the 10th leading cause of death for DeSoto County with a death rate of 16.2 per 100,000.¹⁹

Alcohol Use

Alcohol use is a contributor to many health issues that, if not directly the cause of death, contribute to death. Twenty-five percent of adults report having had at least one heavy drinking day (five or more drinks for men and four or more drinks for women). In 2017, 22,246 people died from alcoholic liver disease and 35,823 people had alcohol-induced deaths, which exclude accidents and homicides.³⁴

While the national percentage of adults (16.9%) who report drinking excessively is higher than Shelby (12.6%) and DeSoto Counties (12.2%), the percentage of adults who drink excessively is greater than that for each state.¹

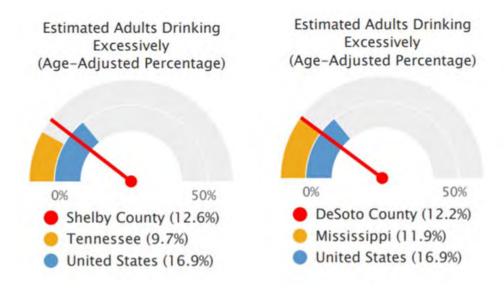


FIGURE 32. ADULTS DRINKING EXCESSIVELY WITHIN SHELBY AND DESOTO COUNTIES, 2006-2012.1

Sexually Transmitted Diseases and Pregnancy

Chlamydia

The rate of chlamydia in Shelby is 1.7 times the rate for Tennessee and 1.7 times the rate for the United States. Between 2010 and 2016, the chlamydia rate has increased steadily for Tennessee and the United States but has remained consistent for Shelby County.¹

Rate of chlamydia for DeSoto County (491.6) is less than Mississippi (672.1). In DeSoto County, the rate has increased from 2014 to 2016 but remains lower than the state (672.1) and the national rate (497.3). 1,3

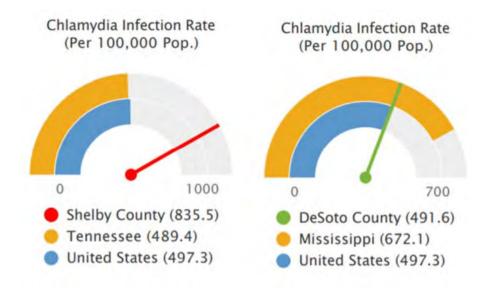


FIGURE 33. CHLAMYDIA INFECTION RATES WITHIN SHELBY AND DESOTO COUNTIES, 2016.¹

African Americans in Tennessee have chlamydia at a rate 5.32 times higher than Caucasians and 3.64 times that of Latinos.¹ There is also a gender disparity, where the rate for females with chlamydia is 2.26 times that of males.

TABLE 35. CHLAMYDIA INFECTION RATES BY RACE AND GENDER WITHIN SHELBY COUNTY, 2016

| Race/Ethnicity | Shelby County All | Shelby County Male | Shelby County Female | Tennessee All |
|------------------|-------------------------|-----------------------|-------------------------|------------------|
| All | 835.5 | 524.1 | 1189.4 | 489.4 |
| Caucasian | 184.4 | 115.8 | 249.3 | 277 |
| African American | 1421.6 | 877.5 | 1888.5 | 1474.7 |
| Hispanic | 383.2 | 157 | 641.3 | 404.7 |

Note: Data are from source ²⁹. Rates are per 100,000 people.

HIV/AIDS

Shelby County has an HIV/AIDS prevalence rate 2.5 times greater than Tennessee and 2 times greater than the United States. In Shelby County, males acquired HIV 62% of the time through male-to-male sex, 16% from heterosexual sex, and 2% from intravenous drug use. Females on the other hand, acquired HIV through heterosexual sex 73% of the time and intravenous drug use 4% of the time.²⁹

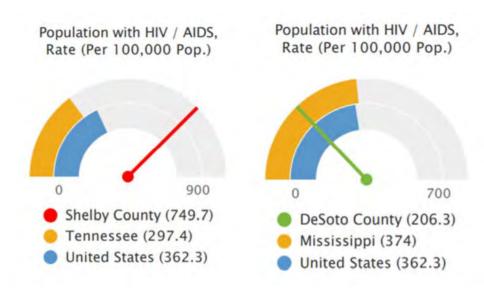


FIGURE 34. POPULATION WITH HIV/AIDS WITHIN SHELBY AND DESOTO COUNTIES, 2015.1

TABLE 36. HIV/AIDS PREVALENCE BY RACE AND LOCATION, 2015

| Race/Ethnicity | Shelby County | Tennessee | DeSoto County | Mississippi |
|------------------|---------------|-----------|---------------|-------------|
| All | 749.7 | 297.4 | 206.3 | 374 |
| Caucasian | 265.09 | 139.6 | 105.39 | 119.0 |
| African American | 1,317.42 | 1,026.12 | 406.12 | 726.12 |
| Hispanic | 422.91 | 462 | 151.69 | 404.56 |

Note: Data are from sources ¹. Rates are per 100,000 people.

TABLE 37. PEOPLE LIVING WITH HIV/AIDS (PLWHA) BY RACE AND GENDER WITHIN SHELBY COUNTY, 2016

| Race/Ethnicity | Shelby County | Shelby County Male | Shelby County Female |
|------------------|---------------|-----------------------|-------------------------|
| All | 675.9 | 979.2 | 400.5 |
| Caucasian | 195.7 | 339 | 60.2 |
| African American | 1047 | 1516.5 | 643.4 |

| Hispanic | 266.5 | 366.2 | 152.9 |
|----------|-------|-------|-------|
| Inspanic | 200.5 | 300.2 | 102.0 |

Note: Data are from source ²⁹. Rates are per 100,000 people.

In 2016 across the United States, there were 39,782 new HIV cases reported and 5,698 related deaths. African Americans contract the virus at a rate 1.7 times greater than Caucasians.³⁵ In Shelby County, the rate of new HIV cases for African Americans is 4.96 times greater than the rate for Caucasians and 3.11 times higher than the rate for Hispanics. The rate of new HIV cases for Hispanics is 1.59 times greater than the rate for Caucasians. In DeSoto County, the rate of new HIV cases for African Americans is 3.85 times the rate for Caucasians and 2.67 times greater than the rate for Hispanics. The rate of new HIV cases for Hispanics is 1.43 times greater than the rate for Caucasians.²⁹ Shelby County has a new HIV case rate 2.5 times higher than Tennessee and 2.07 times greater than the US.

TABLE 38. NEW HIV CASES BY RACE AND GENDER WITHIN SHELBY COUNTY, 2016

| Race/Ethnicity | Shelby County | Shelby County Male | Shelby County Female |
|------------------|---------------|-----------------------|-------------------------|
| All | 28.6 | 47.7 | 11.2 |
| Caucasian | - | - | - |
| African American | 47.7 | 81.1 | 19.1 |
| Hispanic | - | - | - |

Note: Data are from source ²⁹. Rates are per 100,000 people.

Gonorrhea

The rate of gonorrhea in Shelby County is twice that of Tennessee and 2.1 times that of the United States. In DeSoto County the rate of gonorrhea is more than half that of Mississippi but slightly higher than that of the United States.¹

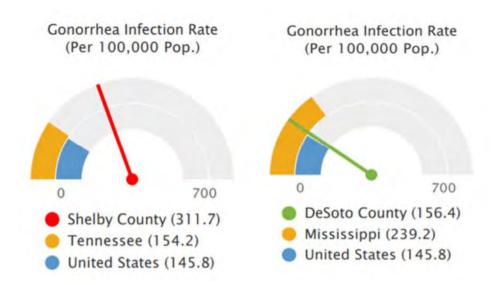


FIGURE 35. GONORRHEA INFECTION RATES WITHIN SHELBY AND DESOTO COUNTIES, 2016.¹

One of the largest racial disparities in Shelby County health is the gonorrhea rate between African Americans and Caucasians. African Americans have gonorrhea at a rate 11 times greater than Caucasians and 12.1 greater than the rate for Hispanics.²⁹ When comparing genders, African American females' gonorrhea rate is 12.3 times higher than that for white females, while African American males have a rate 10.17 times greater than the rate for Caucasian men.

TABLE 39. GONORRHEA RATES BY RACE AND GENDER WITHIN SHELBY COUNTY, 2016

| Race/Ethnicity | Shelby County | Shelby County | Shelby County | State of Tennessee |
|------------------|---------------|---------------|---------------|--------------------|
| | All | Male | Female | |
| All | 323.6 | 345.8 | 303.4 | 154.2 |
| Caucasian | 49.9 | 58.8 | 41.1 | - |
| African American | 550.6 | 598 | 509.5 | - |
| Hispanic | 45.3 | - | - | - |
| | 20 | • | | |

Note: Data are from source ²⁹. Rates are per 100,000 people.

Syphilis

In Shelby County, males acquire new cases of syphilis at a rate 6.37 times greater than females. African American males have a significantly greater rate of syphilis than all other races.²⁹

TABLE 40. SYPHILIS RATES BY RACE AND GENDER WITHIN SHELBY COUNTY, 2016

| Race/Ethnicity | Shelby County | Shelby County Male | Shelby County Female |
|------------------|---------------|-----------------------|-------------------------|
| All | 15.3 | 27.4 | 4.3 |
| Caucasian | - | - | - |
| African American | 25.8 | 47.8 | - |
| Hispanic | - | - | - |

Note: Data are from source ²⁹. Rates are per 100,000 people.

Teen STDs

In Shelby County, the rate for teens with STDs is 39 for every 1,000 teens. This rate for Shelby County is 2.25 greater than the rate of teens across Tennessee with an STD (17.3.).¹

Teen Births

As of 2012, DeSoto County has a teen birth rate that is lower than Mississippi while Shelby County has a teen birth rate greater than Tennessee.¹

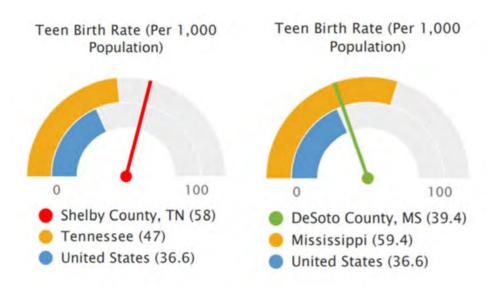


FIGURE 36. TEEN BIRTHS WITHIN SHELBY AND DESOTO COUNTIES, PER 1,000 TEENS, 2012.¹

The Shelby County teen birth rate for African Americans was 4.5 times greater than Caucasians. The teen birth rate for Hispanics in Shelby County is 6.25 times greater than Caucasians. In DeSoto County the rates between the races is comparable.^{2,3}

TABLE 41. TEEN BIRTH RATES BY RACE WITHIN SHELBY COUNTY, 2018

| Race/Ethnicity | Shelby County | DeSoto County |
|------------------|---------------|---------------|
| All | 41 | 27 |
| Caucasian | 12 | 27 |
| African American | 54 | 30 |
| Hispanic | 75 | 28 |

Note: Data are from sources ^{2,3}. Rates are per 1,000 people.

General Prevention

Insurance

In 2017, across the United States, there were 30.1 million uninsured people under 65 years of age or 11.1% of the population. Among this uninsured population, 5.2 million (13.3%) were children under 18 years.³⁹

Of the entire population in Shelby County, 12.8% (118,261) are uninsured compared to 10.8% uninsured throughout Tennessee. In DeSoto County, 10.2% (17,622) of the population is uninsured compared to 13.6% within Mississippi. The percentage uninsured in DeSoto County is similar to the United States (10.5%) while the percentage for Shelby County is higher than the national rate.¹

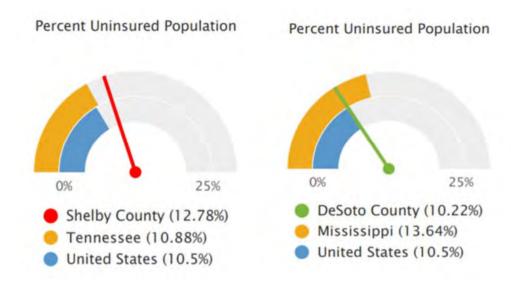


FIGURE 37. UNINSURED POPULATION WITHIN SHELBY AND DESOTO COUNTIES, 2013-2017.¹

In Shelby County, African American adults are twice as likely to be uninsured than Caucasian adults. Hispanic adults in Shelby County are uninsured 5.4 times greater than Caucasians. In DeSoto County, African Americans are 1.5 times as likely to be uninsured than Caucasians and Hispanics are 4 times more likely to be uninsured than Caucasians.¹

There are 32,537 children in Shelby County without health insurance. Among this population, there are 7.4 times as many uninsured African American (8,328) children as Caucasian (1,123) children. Uninsured Hispanic children (21,686) are also a significant proportion of the children uninsured.⁸

TABLE 42. PERCENTAGE OF UNINSURED POPULATIONS BY RACE AND LOCATION, 2013-2017

| Race/Ethnicity | Shelby County | DeSoto County |
|------------------|---------------|---------------|
| All | 12.8 | 10.2 |
| Caucasian | 7 | 8 |
| African American | 14 | 12 |
| Hispanic | 38 | 32 |
| Other Races | 44 | 35 |

Note: Data are from sources ¹.

Difficulty in Getting Care for Children

According to the Shelby County Health Department, in 2017, 79.4% of children within Shelby County had a usual place of health care and 14.6% of all children did not receive a single preventative visit with a physician.⁷ When asked about the difficulty in getting health care for their child when he/she was sick, the following percentage of people reported some level of difficulty in getting specific help: 35.1% for mental health care, 14.3% for specialist care, and 12.1% in getting referrals.⁷

Access to Health Care

Across the United States, 87.6% of people have a usual place they go to get medical care. For those that do not obtain medical care when they need it, 4.8% claimed that cost of medical care was the reason.³⁶ In Shelby County in 2017, 79.4% of children had a usual place for receiving health care when sick. This indicates that 20.6% of children did not have a place of health care.⁷ In DeSoto County in 2015, 14.1% of adults reported not receiving medical care because they lacked the money for care.³

Dental Health

Across the US, 84.6% of people aged 2-17, 64.4% of people age 18 to 64, and 64.3% of people ages 65 and older had a dental visit in 2016. Of children age 5 to 19, 18.6% had dental care while 31.6% of people age 20 to 44 had dental care.³⁷

In the past year, 19.8% (133,542) of adults in Shelby County and 17.5% (19,345) of adults in DeSoto County reported poor dental health. While the percentage for each county is less than their respective state, these figures are still worse than the national rate of 15.7% of people with poor dental health. 1

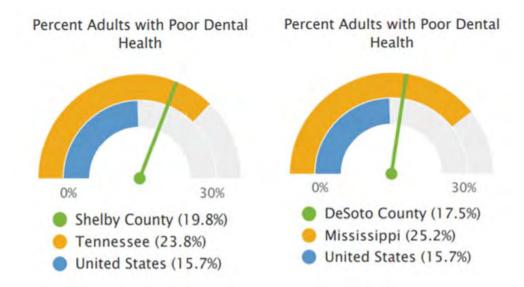


FIGURE 38. ADULTS WITH POOR DENTAL HEALTH WITHIN SHELBY AND DESOTO COUNTIES, 2006-2010.1

In Shelby County, there are approximately 640 dentists with a rate of 68.2 dentists per 100,000 people. In Desoto County, there are 70 dentists with a rate of 40.39 dentists. The rate for Tennessee is slightly better than Shelby County while DeSoto County's rate is on par with Mississippi.¹

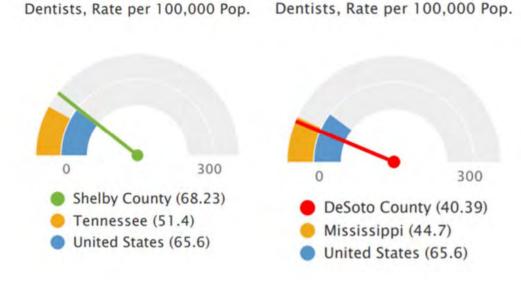


FIGURE 39. DENTISTS WITHIN SHELBY AND DESOTO COUNTIES, 2015.¹

Primary Care Providers

In DeSoto County, the rate of primary care providers for every 100,000 people is 33.9, which is worse than the rate for Mississippi and much worse than the national rate of 87.8. The rate of primary care providers in Shelby County is much higher than that of Tennessee (83). In Shelby County for every 1 primary care provider, there are 1,198 people; in DeSoto County, there are 2,832 people to every 1 provider. The national ratio of people to providers is 1,326:1. 2,3

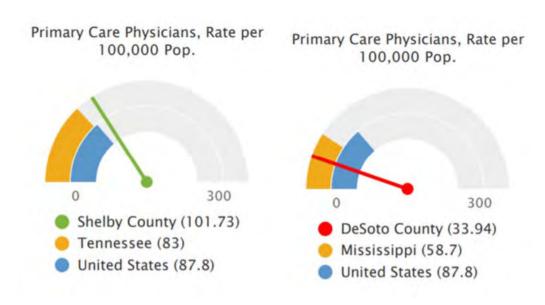


FIGURE 40. PRIMARY CARE PHYSICIANS WITHIN SHELBY AND DESOTO COUNTIES, 2014.¹

Preventable Hospital Stays

For every 100,000 Medicare enrollees, the rate of preventable hospital stays is 4,886 for Shelby County and 5,305 for Tennessee. The rate in Desoto County is 1.7 times worse than Mississippi and 2.58 times worse than the United States. In Shelby County, African Americans had a rate 1.5 times greater than Caucasians. In Desoto County, the rate for African Americans is 1.4 times greater than Caucasians in Desoto County. The rate for preventable hospital visits for Hispanics in Desoto County is 2.2 times greater than Hispanics in Shelby County.^{2,3}

 TABLE 43. PREVENTABLE HOSPITAL VISITS RATES FOR MEDICARE ENROLLEES BY LOCATION, 2015

| Race/Ethnicity | Shelby County | Tennessee | DeSoto County | Mississippi |
|------------------|---------------|-----------|---------------|-------------|
| All | 4,886 | 5,305 | 4,405 | 6,135 |
| Caucasian | 4,087 | - | 4,214 | - |
| African American | 6,083 | - | 6,027 | - |
| Hispanic | 4,273 | - | 1,918 | - |

Note: Data are from sources ¹. Rates are per 100,000 people.

Flu Vaccinations

Despite the communication campaigns to get a flu vaccination, less than half (45%) of the adult residents in Shelby County and 51% in DeSoto County receive an annual flu vaccination. When looking specifically at racial differences in flu vaccinations, 52% of Caucasians in Shelby County and 53% in Desoto County get a flu vaccination while a third or less of African Americans and Hispanics in both counties get a flu vaccine.^{2,3}

Influenza in DeSoto County was the 9th leading cause of death leaving 33 people dead in 2017.⁸ In Shelby County influenza was the 10th leading cause of death contributing to 2.1% of all deaths (175 people).⁷

TABLE 44. PERCENT OF PEOPLE WHO RECEIVED A FLU VACCINATION BY RACE AND LOCATION, 2018

| Race/Ethnicity | Shelby County | DeSoto County |
|------------------|---------------|---------------|
| All | 45 | 51 |
| Caucasian | 52 | 53 |
| African American | 33 | 37 |
| Hispanic | 38 | 33 |

Note: Data are from sources ^{2,3}. Rates are per 100,000 people.

Education

High School Diploma

In 2017, the high school graduation rate for Shelby County was 79.6% compared to Tennessee's graduation rate of 89.1%. High school graduation rate for DeSoto County is slightly better than that for Mississippi and the United States. In the 2016 to 2017 school year, 89% of students graduated in DeSoto County compared to 83.2% across Mississippi and 86.8% nationally. 1

Lack of a high school diploma limits career opportunities and contributes to poverty. Over 10% of the population of Shelby and DeSoto Counties do not have a high school diploma or equivalent, 12.4% and 10.6%, respectively. These figures are better than each state's percentage of people who lack a high school diploma.¹

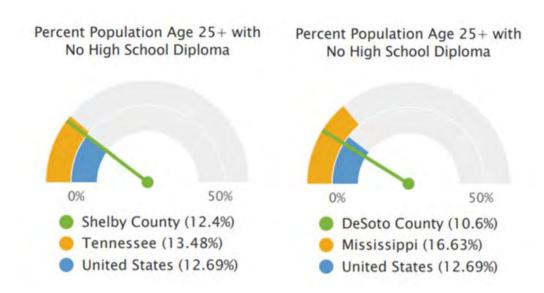


FIGURE 41. NO HIGH SCHOOL DIPLOMA WITHIN SHELBY AND DESOTO COUNTIES, 2013-2017.1

There is a racial disparity between those who do not receive high school diploma. African Americans in Shelby County are 2.3 times more likely than Caucasians to not receive a diploma. Hispanics are 7.5 more likely than Caucasians to not have a diploma. African Americans in DeSoto County are 1.3 times more likely than Caucasians to not have a high school diploma. Hispanics are 3.3 times more likely than Caucasians to not have a diploma.¹

TABLE 45. PERCENTAGE OF POPULATION WITHOUT HIGH SCHOOL DIPLOMA BY LOCATION, 2013-2017

| Race/Ethnicity | Shelby County | DeSoto County |
|------------------|---------------|---------------|
| Caucasian | 6.7 | 9.5 |
| African American | 15.4 | 12.5 |
| Hispanic | 50 | 31.5 |

Note: Data are from sources ¹.

Bachelor's Degree

Less than a third of adults over the age of 25 have a college bachelor's degree in Shelby (31%) and DeSoto (23%) Counties. DeSoto County's rate is less than the national rate of 30.9% of people with a bachelor's degree, but still higher than Mississippi's rate. The percentage of people in Shelby County (32%) that have bachelor's degree is slightly greater than the percentage ofTennesseans who have a bachelor's degree.¹

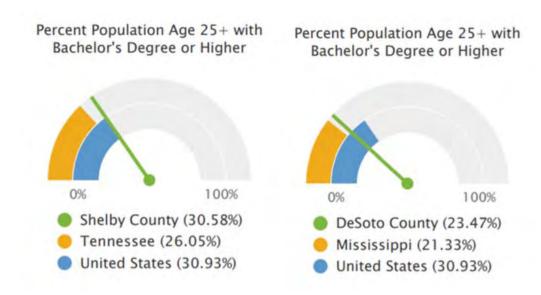


FIGURE 42. BACHELOR'S DEGREE OR HIGHER WITHIN SHELBY AND DESOTO COUNTIES, 2013-2017.¹

Chronic Absenteeism

Chronic absenteeism from school makes it harder for students to graduate high school, and if they do not graduate high school, they cannot attend college. Students in Shelby County who are economically disadvantaged or who have disabilities are at greater risk for chronic absenteeism. In 2017 and 2018, respectively, 23% and 18.3% of economically disadvantaged children were chronically absent. During this same period 19.9% and 17.4% students with disabilities were also chronically absent from school. African American students were 1.9 times more likely to be chronically absent from school than Caucasian students.²⁶

TABLE 46. PERCENT OF STUDENTS WITH CHRONIC ABSENTEEISM BY RACE IN SHELBY COUNTY, 2017-2018

| Groups | 2017 | 2018 |
|----------------------------|------|------|
| All Shelby County Students | 18.6 | 12.7 |
| Caucasian | 8.8 | 7.9 |
| African American | 19 | 15 |
| Hispanic | 11.2 | 9.6 |
| Economically Disadvantaged | 23 | 18.3 |
| Students with Disabilities | 19.9 | 17.4 |

Note: Data are from sources ²⁶.

Economic Stability

Median Income

The median household income for Shelby County is \$49,600 and \$66,100 for DeSoto County. Racial disparities exist in both counties for median household income. In Shelby County, median income for Caucasians is 1.96 times higher than that of Hispanics and 2.06 times higher than that of African Americans. In DeSoto County, the median income for Caucasians is 1.45 times higher than that of Hispanics and 1.89 times higher than that of African Americans. In DeSoto County, the median income for Caucasians is 1.45 times higher than that of Hispanics and 1.89 times higher than that of African Americans.

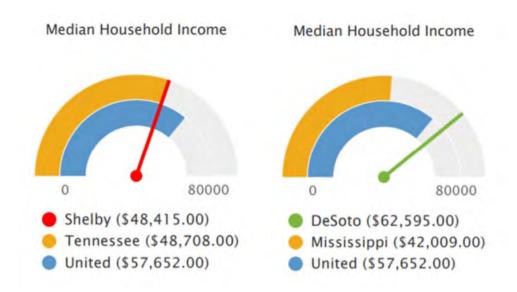


FIGURE 43. MEDIAN HOUSEHOLD INCOME WITHIN SHELBY AND DESOTO COUNTIES, 2013-2017.¹

TABLE 47. MEDIAN HOUSEHOLD INCOME BY RACE AND LOCATION, 2013-2017

| Race/Ethnicity | Shelby County | DeSoto County |
|------------------|---------------|---------------|
| Caucasian | \$72,300 | \$69,200 |
| African American | \$35,100 | \$50,700 |
| Hispanic | \$36,900 | \$45,000 |

Note: Data are from sources ^{2,3}.

Unemployment

The unemployment rate for Shelby County is 3.4% and 3.9% for Desoto County.¹

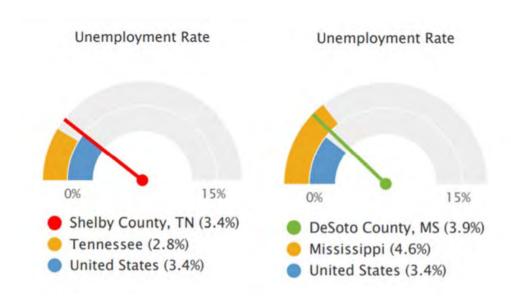


FIGURE 44. UNEMPLOYMENT RATES WITHIN SHELBY AND DESOTO COUNTIES, 2019.¹

Poverty

The rate of poverty in Shelby County is 21% (191,520) and is higher than both the state (16.6%) and national figures. In DeSoto County, 9.7% (16,778) of the overall population lives in poverty, which is less than both the state and national percentages of poverty.¹

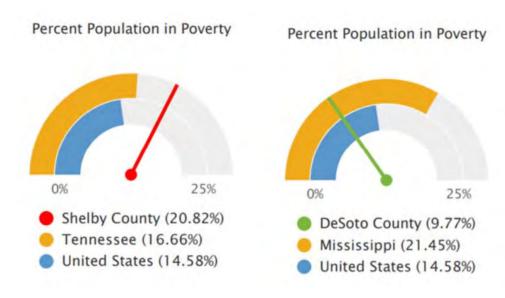


FIGURE 45. POPULATION IN POVERTY WITHIN SHELBY AND DESOTO COUNTIES, 2013-2017.1

In Shelby County, 34% of all children are living in poverty compared to 13% of children in DeSoto County who live in poverty.

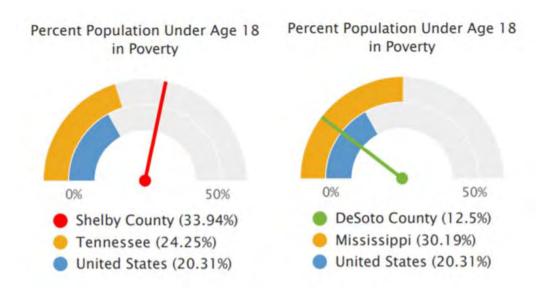


FIGURE 46. CHILDREN IN POVERTY WITHIN SHELBY AND DESOTO COUNTIES, 2013-2017.¹

There is a big racial disparity among children in poverty in both counties. African American children in Shelby County, compared to Caucasian children, are 6 times more likely to live in poverty. In DeSoto County, African American children are 2.37 times more likely to live in poverty than Caucasian children are. Hispanic children in Shelby County are 5.5 times more likely than Caucasians to live in poverty and in DeSoto County, they are 3.75 times more likely than Caucasians to live in poverty.^{2,3}

TABLE 48. NUMBER AND PERCENT OF CHILDREN IN POVERTY BY RACE AND LOCATION, 2018

| Race/Ethnicity | Shelby | Shelby | DeSoto | DeSoto |
|------------------|--------|------------|--------|------------|
| | Number | Percentage | Number | Percentage |
| All | 79,657 | 34 | 5,611 | 13 |
| Caucasian | 5,578 | 9 | 2.029 | 8 |
| African American | 60,686 | 55 | 2,467 | 19 |
| Hispanic | 11,749 | 50 | 937 | 30 |

Note: Data are from sources ^{1,2,3}.

Housing Burden

In Shelby County, 35% of the households have housing costs that exceed 30% of their family's income; and in DeSoto County 24% of the population has a high housing burden.¹

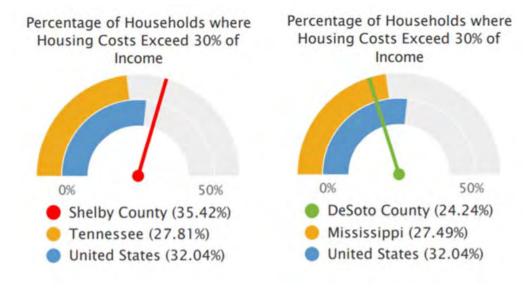


FIGURE 47. PERCENT OF HOUSEHOLDS WITH EXCESSIVE HOUSING COSTS WITHIN SHELBY AND DESOTO COUNTIES, 2013-2017.¹

Community and Social Context

Social factors and the presence of community and social context cannot be dismissed when evaluating the health outcomes of groups of individuals, for the social factors can either help or hinder physical, mental and emotional well-being.

Single Parent Homes

A child raised in a single parent home has a greater likelihood of encountering economic and social hardship due to only one parent providing an income and caregiving for a child(ren). Fiftyone percent (51%) of all children in Shelby County live in single-parent homes. This is higher than the 35% of children in single parent homes across Tennessee. In DeSoto County, 32% of all children live in single-parent homes compared to 44% across Mississippi.^{2,3} According to recent statistics from the Shelby County Health Department, there are 116,127 children living in single parent homes. The majority (86.7%) live with a female head of household whereas 13.2% live in male heads of household.⁷

Social Associations

Residents in both Shelby and DeSoto Counties have fewer social associations than all residents across the states of Tennessee and Mississippi. There are 9.1 member associations per 100,000 people in Shelby County compared to 11.3 in Tennessee and 8.3 member associations in DeSoto County compared to 12.6 in Mississippi.^{2,3}

Disconnected and Unemployed Youth

The percentage of disconnected youth in Shelby County (11%) is greater than that of Tennessee, (8%) while in DeSoto County 8% of youth are disconnected compared to 9% in Mississippi.^{2,3} Teens unemployed and not in school are disconnected from major social connections. In Shelby County, 11% of teens (between ages 16 to 19) and 8% in DeSoto County are not attending school or employed.¹

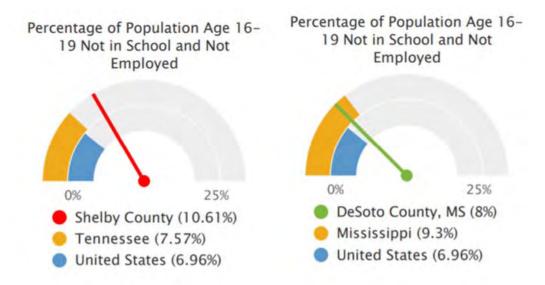


Figure 48. Youth Neither in School Nor Employed within Shelby and DeSoto Counties, 2013- $2017.^{1}$

Housing and Transportation

Substandard Housing

In Shelby County, 35.5% (124,029) of the population lives in substandard housing compared to 24.8% (15,202) of the population in DeSoto County. The percentage of substandard housing in Shelby County is 1.25 times greater than that of Tennessee, while the percentage in DeSoto County is lower than the percentage in Mississippi who live in substandard housing.¹

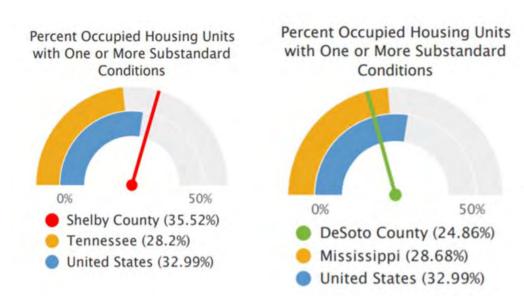


FIGURE 49. OCCUPIED HOUSING UNITS WITH SUBSTANDARD CONDITIONS WITHIN SHELBY AND DESOTO COUNTIES, 2013-2017.¹

Vacant Housing Units

In Shelby County 13.4% of housing units are vacant which is higher than the rate for Tennessee (12.2%). DeSoto County (6.1%) has half the rate of vacant units as Mississippi (15.6%).¹

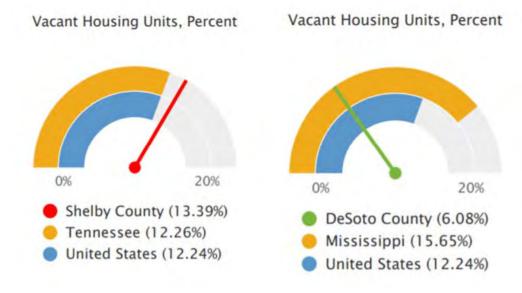


FIGURE 50. VACANT HOUSING UNITS WITHIN SHELBY AND DESOTO COUNTIES, 2013-2017.1

Renter Occupied

Over 40 percent (44.1%) of families in Shelby County are renters. This is 1.3 times greater than the state of Tennessee (33.7%) and slightly greater than the national percentage of renters (36.1%). In Desoto County 26.8% of the population rent. The percentage for DeSoto is even lower than Mississippi's percentage of 31.8%.¹

Racial disparities exist in both counties. In Shelby County, African Americans rent at 1.93 times greater rate than Caucasians, and in DeSoto County the rate among African American renters is 2.37 times greater than that of Caucasians.¹

TABLE 49. PERCENTAGE OF PEOPLE WHO RENT BY RACE AND LOCATION, 2013-2017

| Race | Shelby County | Tennessee | DeSoto County | Mississippi |
|------------------|---------------|-----------|---------------|-------------|
| Caucasian | 28.9 | 28.5 | 19.8 | 23.3 |
| African American | 55.7 | 55.9 | 47.2 | 45.8 |

Note: Data are from sources ¹. Rates are per 100,000 people.

Family Composition

Over half of the homes in both counties are family units. In Shelby County, family units occupy 62.9% of homes and 37% are nonfamily units. In DeSoto County, family units occupy 73.5% of homes and 26.4% are nonfamily units.¹

No Motor Vehicles

Across Mississippi and Tennessee, about 6% of the adult population do not have personal motor vehicles for transportation. In Shelby County, 8.9% of the population does not have a motor vehicle. The statistics for DeSoto County are much better where only 3.1% do not have personal transportation.¹

If a person owns a home, their likelihood of owning a car is much more likely. In DeSoto County, there are 1.95 times more renters (2.85%) than homeowners (1.46%) who do not have personal transportation. In Shelby County, there are 3.9 times more renters (12.7%) than homeowners (3.22%) without motor vehicles.¹

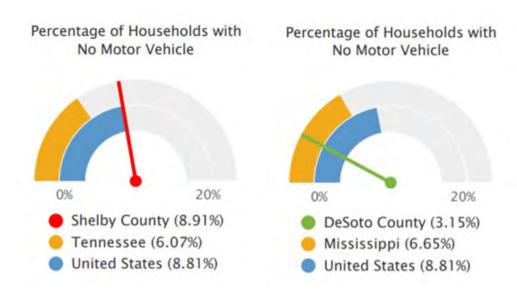


FIGURE 51. HOUSEHOLDS WITH NO MOTOR VEHICLE WITHIN SHELBY AND DESOTO COUNTIES, 2013-2017.1

Food Security and Physical Activity

Food insecurity is a prevalent issue in both counties, and this issue demonstrates how built environment affects health outcomes of populations.

Low Food Access

Low access to healthy food is a problem for 34% (313,181) of Shelby County residents and 50% (80,413) of DeSoto County residents. Shelby County has a percentage of people with low food access 1.51 greater than the United States and 1.2 greater than the state of Tennessee. In DeSoto County, the proportion of the population who have low food access is 2.22 times greater than the United States and 1.93 times greater than Mississippi.¹

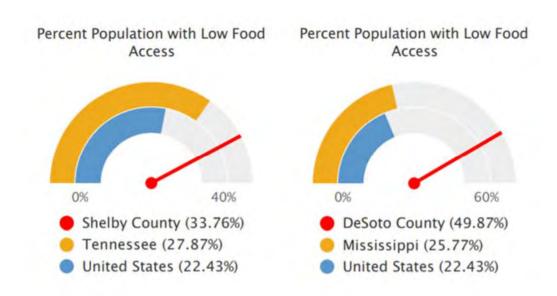


FIGURE 52. POPULATION WITH LOW FOOD ACCESS WITHIN SHELBY AND DESOTO COUNTIES, 2015.¹

Racial disparities exist when looking at the population of groups with access to food. African Americans in Shelby County are 1.4 times more likely to have low food access than Caucasians. Of Hispanics, over 50% of the population has limited access to food. The difference between the races is not as dramatic in DeSoto County, but that is because the percentage of Caucasians with low access to food is 20 percentage points higher than Shelby County.

TABLE 50. PERCENT OF PEOPLE WITH LOW ACCESS TO HEALTH FOOD BY RACE AND LOCATION, 2015

| Race/Ethnicity | Shelby County | DeSoto County |
|------------------|---------------|---------------|
| Caucasian | 47 | 67 |
| African American | 67 | 70 |
| Hispanic | 54 | 56 |

Note: Data are from sources ¹.

In Shelby County, 25% (232,510) of the population and 11% (18,466) of residents in DeSoto County receive supplemental nutrition assistance. This percentage for Shelby County is higher than the percentage for Tennessee (17.3%) and higher than the national average of 21.1%. DeSoto County is lower than both Mississippi (20.1%) and the national average.¹

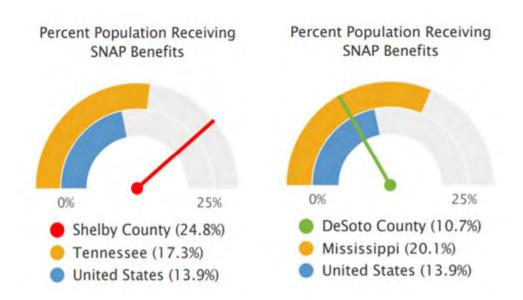


FIGURE 53. POPULATION RECEIVING SNAP BENEFITS WITHIN SHELBY AND DESOTO COUNTIES, 2015.¹

Facilities

Both counties are below the national rate indicating fewer available grocery stores compared to the United States. As of 2016, in DeSoto County, there are 20 grocery stores, 12.4 stores for every 100,000 people. In Shelby County, there are 163 grocery stores, 17.5 per 100,000 people. The national rate of grocery stores is 21.2 per 100,000 people.

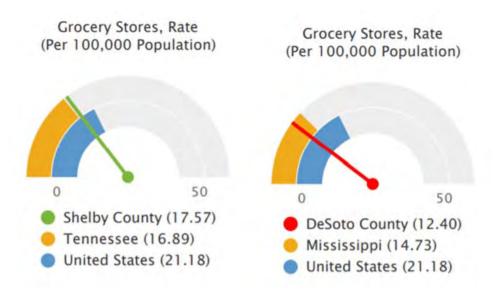


FIGURE 54. GROCERY STORES WITHIN SHELBY AND DESOTO COUNTIES, 2016.¹

When looking at the rate of fast food facilities per 100,000 people, Shelby County has a rate of 77.4 and DeSoto County a rate of 86.8. There were 718 fast food establishments in Shelby County and 140 in DeSoto County.¹



FIGURE 55. FAST FOOD RESTAURANTS WITHIN SHELBY AND DESOTO COUNTIES, 2016.1

Physical Exercise

Physical activity is important for healthy living. One fourth of residents in Shelby County (23%) and DeSoto County (29.5%) engage in no leisure time physical activity.¹ Also 11% percent of children across the state of Tennessee have no physical activity in a week.⁷ Shelby County's

percentage of inactive people is less than Tennessee, and it does have a lower rate of fitness facilities, 8.3 per every 100,000 people. The rate of fitness facilities per 100,000 people for Tennessee is 9.0 and 11 for the United States.¹

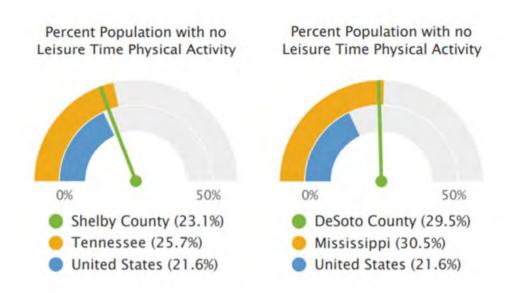


FIGURE 56. POPULATION WITH PHYSICAL ACTIVITY WITHIN SHELBY AND DESOTO COUNTIES, 2015.1

Nutrition

Almost half (43%) of adults report in Shelby County eating less than one fruit or vegetable a day;⁷ and 38% of Shelby County and 32% of DeSoto County report not getting enough sleep each day.^{2,3}

Obesity

Across the United States, 71.6% of adults over the age of 20 are overweight and 39.8% of adults are obese. Obesity is also a health problem for children. Nationally, young children ages 2 to 5 have an obesity rate of 13.9%. As children age, childhood obesity rates increase; 18.4% of children 6 to 11 and 20.6% of children 12 to 19 are obese.³⁸

In Tennessee in 2017, 40.8% of male and 35.1% of female school age children were overweight or obese. Caucasian male student were 1.22 times more likely to be overweight or obese than African American male students. This disparity differs for females where African American female students were 1.37 times more likely than Caucasian female students to be overweight or obese.⁷

TABLE 51. PERCENTAGE OF CHILDREN WHO ARE OBESE/OVERWEIGHT BY RACE AND GENDER IN SHELBY COUNTY, 2017

| Weight Status | All Males | African American Males | Caucasian Males | All Females | African American Females | Caucasian Females |
|---------------------|-----------|------------------------------|--------------------|----------------|--------------------------------|----------------------|
| Obese | 23.9 | 20.7 | 25.7 | 16.9 | 22.4 | 14.8 |
| Overweight | 16.9 | 15.2 | 18.1 | 18.2 | 20.3 | 16.2 |
| Slightly Overweight | 27.9 | 18.1 | 31.7 | 38 | 38.4 | 37.3 |

Note: Data are from source ⁷.

Obesity is a significant problem in both Shelby County and DeSoto Counties. In Shelby, 35% (236,551 people) of the adults and in DeSoto County, 32% (39,661 people) of the adults are overweight or obese. Shelby County's obesity is slightly worse than Tennessee and 1.2 times worse than the United States. The percentage of obese adults in DeSoto County is actually better than Mississippi but worse than the national percentage.¹

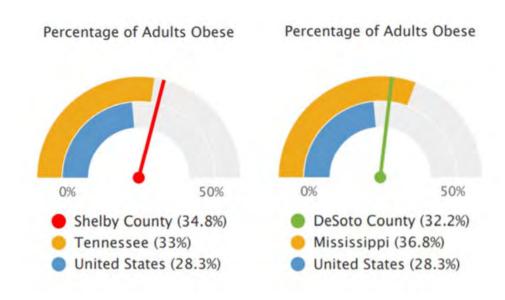


FIGURE 57. ADULTS WITH OBESITY WITHIN SHELBY AND DESOTO COUNTIES, 2015.¹

High Heat Observation Days

High heat days are also problematic for people who do not have access to recreational and fitness facilities who need to exercise outdoors. The average heat index for both Shelby and DeSoto Counties is 97. In Shelby County, 15.9% of observed weather days have a high heat index whereas only 6% of observed days across Tennessee have a high heat index. In DeSoto County 16.4% of the days have a high index, which is not much higher than the percentage for Mississippi, 15.9%. It is hot outside in the south.¹

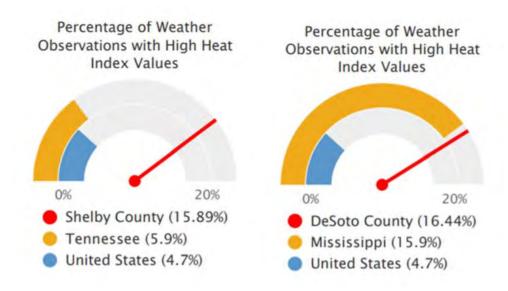


FIGURE 58. OBSERVATIONS OF HIGH HEAT INDEX VALUES WITHIN SHELBY AND DESOTO COUNTIES, 2014.1

End of Data Report

Appendix A: References

- Center for Applied Research and Engagement Systems (CARES) University of Missouri Extension. (2019). [Community Health Needs Assessment Report with data dashboards and maps for Shelby County, Tennessee and DeSoto County, Mississippi]. CARES Engagement Network. Accessed June 14, 2019 from https://engagementnetwork.org/assessment/chna_report/
- 2. University of Wisconsin Population Health Institute and Robert Wood Johnson Foundation. (2019). [Individual report of health indicators and rankings for Shelby County, Tennessee]. County Heath Rankings and Roadmaps. Retrieved August 19, 2019 from https://www.countyhealthrankings.org/app/tennessee/2019/rankings/shelby/county/outcomes/overall/snapshot
- 3. University of Wisconsin Population Health Institute and Robert Wood Johnson Foundation.
 (2019). [Individual report of health indicators and rankings for DeSoto County,
 Mississippi]. County Heath Rankings and Roadmaps. Retrieved August 19, 2019 from
 https://www.countyhealthrankings.org/app/mississippi/2019/rankings/desoto/county/outcomes/overall/snapshot
- 4. Centers for Disease Control, National Center for Health Statistics (June 24, 2019). *National Vital Statistics Reports. Deaths: Final Data for 2017.* [pdf] Accessed September 14, 2019 https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68 06-508.pdf
- 5. Centers for Disease Control, National Center for Health Statistics (2019). [Heart Disease information from the 2017 National Health Interview Survey summarized for FastStats and demographic breakdowns provided in health specific tables.] Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/heart-disease.htm; https://ftp.cdc.gov/pub/Health_Statistics/NCHS/NHIS/SHS/2017_SHS_Table_A-1.pdf
- 6. Center for Disease Control, National Center for Health Statistics (2019). Summary of Health Statistics: National Health Interview Survey, 2017. [pdf] Tables of Summary Health Statistics. Accessed September 14, 2019, https://ftp.cdc.gov/pub/Health_Statistics/NCHS/NHIS/SHS/2017_SHS_Table_A-1.pdf
- 7. Shelby County Health Department, Office of Epidemiology and Infectious Diseases. *Community Health Data prepared 3/13/2019*. Memphis, Tennessee.
- 8. Mississippi State Department of Health, Office of Public Health Statistics. [PDF] *2017 Leading Causes* of *Deaths by County*. Published 01/22/2019, Accessed August 2019 at https://msdh.ms.gov/phs/2017/Summary/dthsumm_cnty_2017.pdf

- 9. Mississippi State Department of Health, Office of Public Health Statistics. [PDF]. *Mississippi Leading Causes of Death for 2017*. Published: 01/22/2019 https://msdh.ms.gov/phs/2017/Summary/dthsumm_state_2017.pdf
- 10. Centers for Disease Control, National Center for Health Statistics (2019). [Hypertension information from the 2017 National Health Interview Survey summarized for FastStats and demographic breakdowns provided in health specific tables.] Accessed on September 14, 2019 https://ftp.cdc.gov/pub/Health_Statistics/NCHS/NHIS/SHS/2017_SHS_Table_A-1.pdf; https://www.cdc.gov/nchs/fastats/hypertension.htm
- 11. Centers for Disease Control and Prevention. Interactive Atlas of Heart Disease and Stroke (2019), Database Accessed August 2019 at www.cdc.gov/dhdsp/maps/atlas
- 12. Centers for Disease Control, National Center for Health Statistics (2019). [Stroke information from the 2017 National Health Interview Survey summarized for FastStats and demographic breakdowns provided in health specific tables.] Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/stroke.htm; https://ftp.cdc.gov/pub/Health Statistics/NCHS/NHIS/SHS/2017 SHS Table A-1.pdf
- 13. Centers for Disease Control, National Center for Health Statistics (2019). [Cancer information from the 2017 National Health Interview Survey summarized for FastStats and demographic breakdowns provided in health specific tables.] Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/cancer.htm; https://ftp.cdc.gov/pub/Health_Statistics/NCHS/NHIS/SHS/2017_SHS_Table_A-3.pdf
- 14. Centers for Disease Control, National Center for Health Statistics (2019). [Mammography information from the 2017 National Health Interview Survey summarized for FastStats and demographic breakdowns provided in health specific tables.] Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/mammography.htm; https://www.cdc.gov/nchs/data/hus/2017/070.pdf
- 15. Mississippi State Department of Health. (2019). [Web-based query system for Mississippi vital statistics September 14, 2019] MSTAHRS Mississippi Statistically Automated Health Resource System. Retrieved from http://mstahrs.msdh.ms.gov/
- 16. U.S. Cancer Statistics Working Group. U.S. Cancer Statistics Data Visualizations Tool, based on November 2018 submission data (1999-2016): U.S. Department of Health and Human Services, Centers for Disease Control and National Cancer Institute. Accessed June 2019 https://gis.cdc.gov/Cancer/USCS/DataViz.html
- 17. BroadStreet, 2019, broadstreet.io. [Health information for user specified geographic areas.]

 Accessed 8 July 2019. http://www.communitycommons.org/home
- 18. United States Census Bureau, 2019. Retrieved October 8, 2019 https://www.census.gov/newsroom/facts-for-features/2016/cb16-ff08.html

- 19. Centers for Disease Control, National Center for Health Statistics (2019). [Alzheimer information from the 2017 National Health Interview Survey summarized for FastStats.]

 Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/alzheimers.htm
- 20. Centers for Disease Control, National Center for Health Statistics (2019). [Diabetes information from the 2017 National Health Interview Survey summarized for FastStats.]

 Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/diabetes.htm
- 21. Centers for Disease Control, National Center for Health Statistics (2019). [Unintentional injury information from the 2017 National Health Interview Survey summarized for FastStats.]

 Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/accidental-injury.htm
- 22. Centers for Disease Control, National Center for Health Statistics (2019). [Suicide information from the 2017 National Health Interview Survey summarized for FastStats.] Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/suicide.htm
- 23. Centers for Disease Control, National Center for Health Statistics (2019). [Mental health information from the 2017 National Health Interview Survey summarized for FastStats.]

 Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/mental-health.htm
- 24. Centers for Disease Control, National Center for Health Statistics (2019). [Depression information from the 2017 National Health Interview Survey summarized for FastStats.]

 Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/depression.htm
- 25. Centers for Disease Control, National Center for Health Statistics (2019). [Homicide information from the 2017 National Health Interview Survey summarized for FastStats.]

 Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/homicide.htm
- 26. Annie E. Casey Foundation, Kids Count Data Center, 2019. [Custom report created with Tennessee indicators for Shelby County.] Accessed in September 2019
 https://datacenter.kidscount.org/data/customreports/6498/any
- 27. Annie E. Casey Foundation, Kids Count Data Center, 2019. [Custom report created with Mississippi indicators for DeSoto County.] Accessed in September 2019 https://datacenter.kidscount.org/data/customreports/3930/any
- 28. Shelby County Health Department, Office of Epidemiology and Infectious Disease. 2016

 Annual Report. [PDF] Retrieved August 19, 2019 from

 <a href="http://www.shelbytnhealth.com/DocumentCenter/View/1082/2016-Epidemiology-Report-?bidId="http://www.shelbytnhealth.com/DocumentCenter/View/1082/2016-Epidemiology-Report-?bidId="http://www.shelbytnhealth.com/DocumentCenter/View/1082/2016-Epidemiology-Report-?bidId="http://www.shelbytnhealth.com/DocumentCenter/View/1082/2016-Epidemiology-Report-?bidId="http://www.shelbytnhealth.com/DocumentCenter/View/1082/2016-Epidemiology-Report-?bidId="http://www.shelbytnhealth.com/DocumentCenter/View/1082/2016-Epidemiology-Report-?bidId="http://www.shelbytnhealth.com/DocumentCenter/View/1082/2016-Epidemiology-Report-?bidId="http://www.shelbytnhealth.com/DocumentCenter/View/1082/2016-Epidemiology-Report-?bidId="http://www.shelbytnhealth.com/DocumentCenter/View/1082/2016-Epidemiology-Report-?bidId="http://www.shelbytnhealth.com/DocumentCenter/View/1082/2016-Epidemiology-Report-?bidId="http://www.shelbytnhealth.com/DocumentCenter/View/1082/2016-Epidemiology-Report-?bidId="http://www.shelbytnhealth.com/DocumentCenter/View/1082/2016-Epidemiology-Report-?bidId="http://www.shelbytnhealth.com/DocumentCenter/View/1082/2016-Epidemiology-Report-?bidId="https://www.shelbytnhealth.com/DocumentCenter/View/1082/2016-Epidemiology-Report-?bidId="https://www.shelbytnhealth.com/DocumentCenter/View/1082/2016-Epidemiology-Report-?bidId="https://www.shelbytnhealth.com/DocumentCenter/View/1082/2016-Epidemiology-Report-?bidId="https://www.shelbytnhealth.com/DocumentCenter/View/1082/2016-Epidemiology-Report-?bidId="https://www.shelbytnhealth.com/DocumentCenter/View/1082/2016-Epidemiology-Report-?bidId="https://www.shelbytnhealth.com/DocumentCenter/View/1082/2016-Epidemiology-Report-"https://www.shelbytnhealth.com/DocumentCenter/View/1082/2016-Epidemiology-Report-Re
- 29. Shelby County Health Department, Office of Epidemiology and Infectious Disease. *HIV Disease and STD Annual Surveillance Summary 2016* [PDF] Retrieved August 19, 2019 from http://www.shelbytnhealth.com/DocumentCenter/View/1403/2016-HIV-STD-Annual-Report

- 30. Centers for Disease Control, National Center for Health Statistics (2019). [COPD information from the 2017 National Health Interview Survey summarized for FastStats.] Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/copd.htm
- 31. Centers for Disease Control, National Center for Health Statistics (2019). [Asthma information from the 2017 National Health Interview Survey summarized for FastStats.] Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/asthma.htm.
- 32. Centers for Disease Control, National Center for Health Statistics (2019). [Liver disease information from the 2017 National Health Interview Survey summarized for FastStats.]

 Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/liver-disease.htm
- 33. Centers for Disease Control, National Center for Health Statistics (2019). [Kidney disease information from the 2017 National Health Interview Survey summarized for FastStats.]

 Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/kidney-disease.htm
- 34. Centers for Disease Control, National Center for Health Statistics (2019). [Alcohol usage information from the 2017 National Health Interview Survey summarized for FastStats.]

 Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/alcohol.htm
- 35. Centers for Disease Control, National Center for Health Statistics (2019). [AIDS information from the 2017 National Health Interview Survey summarized for FastStats.] Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/aids-hiv.htm
- 36. Centers for Disease Control, National Center for Health Statistics (2019). [Access to healthcare information from the 2017 National Health Interview Survey summarized for FastStats.] Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/access-to-health-care.htm
- 37. Centers for Disease Control, National Center for Health Statistics (2019). [Dental information from the 2017 National Health Interview Survey summarized for FastStats.] Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/dental.htm
- 38. Centers for Disease Control, National Center for Health Statistics (2019). [Obesity information from the 2017 National Health Interview Survey summarized for FastStats.] Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/obesity-overweight.htm
- 39. Centers for Disease Control, National Center for Health Statistics (2019). [Health insurance information from the 2017 National Health Interview Survey summarized for FastStats.]

 Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/health-insurance.htm

Appendix B: Disparities

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Health Disparities

| Health Issues | Shelby County | DeSoto County |
|---------------------------------|---|--|
| Gonorrhea (Morbidity) | Shelby 2.0 X worse than TN and US | |
| Gonorrhea (Morbidity) | African American 11.0 X greater than Caucasian | |
| Gonorrhea (Morbidity) | African American 12.1 X greater than Hispanic | |
| HIV New Cases (Morbidity) | Shelby 2.1 X worse than US | |
| HIV New Cases (Morbidity) | African American 5.0 X greater than Caucasian | African American 3.8 X greater than Caucasian |
| HIV New Cases (Morbidity) | African American 3.1 X greater than Hispanic | African American 2.7 X greater than Hispanic |
| Chlamydia (Morbidity) | Shelby is 1.7 X worse than US | |
| Chlamydia (Morbidity) | TN: African American 5.3 X greater than Caucasian | |
| Chlamydia (Morbidity) | TN: African American 3.6 X greater than Hispanic | |
| Teen Births | African American 4.5 X greater than Caucasian | |
| Teen Births | Hispanic 6.3 X greater than Caucasian | |
| Teens with STDs | Shelby 2.3 X worse than TN | |
| Violent Crime (Morbidity) | Shelby 2.7 X worse than TN | |
| Homicide (obviously Mortality) | Shelby 3.4 X worse than US | African American 3.3 X greater than Caucasian |
| Homicide (obviously Mortality) | African American 7.3 X greater than Caucasian | |
| Homicide (obviously Mortality) | African American 2.4 X greater than Hispanic | |
| Infant (Mortality) | Shelby 1.9 X worse than US | |
| Infant (Mortality) | African American 3.2 X greater than Hispanic | African American 1.8 X greater than Caucasian |
| Infant (Mortality) | African American 2.6 X greater than Caucasian | |
| Preterm Births | Shelby 2.2 X worse than US | |
| Preterm Births | African American 1.5 X greater than Caucasian | African American 1.3 X greater than Caucasian |
| Low Birth Weight | African American 2.1 X greater than Caucasian | African American 1.8 X greater than Caucasian |
| Low Birth Weight | African American 2.6 X greater than Hispanic | African American 2.3 X greater than Hispanic |
| Child Deaths (Mortality) | African American 2.0 X greater than Caucasian | |
| Child Deaths (Mortality) | African American 2.0 X greater than Hispanic | |
| High Blood Pressure (Mortality) | African American 2.0 X greater than Caucasian | African American 1.5 X greater than Caucasian |
| Stroke (Mortality) | African American 1.7 X greater than Caucasian | African American 1.3 X greater than Caucasian |
| Diabetes (Mortality) | African American 1.8 X greater than Caucasian | African American 2.6 X greater than Caucasian |
| Prostate Cancer (Morbidity) | Shelby 1.5 X worse than US | |
| Prostate Cancer (Morbidity) | African American 1.4 X greater than Caucasian | African American 2.1 X greater than Caucasian |
| Prostate Cancer (Mortality) | African Americans 3.0 X greater than Caucasian | African Americans 2.3 X greater than Caucasian |
| Colon Cancer (Morbidity) | African American 1.5 X greater than Caucasian | African American 1.6 X greater than Caucasian |
| Colon Cancer (Mortality) | African American 1.6 X greater than Caucasian | |
| Breast Cancer (Mortality) | African Americans 1.4 X greater than Caucasian | African Americans 1.6 X greater than Caucasian |
| | WIII OF OCC | |

| Prevention, Education, Income | Shelby County | DeSoto County |
|---------------------------------------|---|---|
| Without Health Insurance (SDoH) | African American 2.0 X greater than Caucasian | African American 1.5 X greater than Caucasian |
| Without Health Insurance (SDoH) | Hispanic 5.4 X greater than Caucasian | Hispanic 4.0 X greater than Caucasian |
| Access to Mental Health (SDoH) | Shelby 1.5 X fewer than US | DeSoto 2.6 X fewer than US |
| No Prenatal Care (SDoH) | Shelby 2.2 X worse than US | |
| Chronically Absent from School (SDoH) | African American 1.9 X greater than Caucasian | |
| No High School Diploma (SDoH) | African American 2.3 X greater than Caucasian | African American 1.3 X greater than Caucasian |
| No High School Diploma (SDoH) | Hispanic 7.5 X greater than Caucasian | Hispanic 3.3 X greater than Caucasian |
| Income (SDoH) | Caucasian 2.0 X greater than Hispanic | Caucasian 1.5 X greater than Hispanic |
| Income (SDoH) | Caucasian 2.1 X greater than African American | Caucasian 1.9 X greater than African American |
| Children in Poverty (SDoH) | African American 6.0 X greater than Caucasian | African American 2.4 X greater than Caucasian |
| Children in Poverty (SDoH) | Hispanic 5.5 X greater than Caucasian | Hispanic 3.8 X greater than Caucasian |



2019 COMMUNITY HEALTH NEEDS ASSESSMENT SUMMARY OF REGIONAL ONE'S KEY INFORMANT SURVEY

Methodist Le Bonheur Healthcare

Prepared by:

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Abstract

Key Informants (KIs) are the stakeholders within a community whose organizations or companies have social, political and/or economic pull to positively affect the community's well-being and health outcomes. Thus, during a Community Health Need Assessment (CHNA) it is vital to assess a community's health needs via communication with its KIs. Within the 2019 CHNA, Methodist Le Bonheur Healthcare and its community partners administered a KI survey to various leaders within the Shelby County and surrounding area in order to solicit and take into account input received from persons who represent the broad interests of the community. A total of 26 KIs completed the survey, with the majority identifying themselves as primarily serving traditionally underserved populations, with 85% stating that they would not consider the communities [of Shelby County] as "healthy," and 58% stating that the community's overall health status is "Poor." This report is a summary of the key informants' assessment of Shelby County's key health issues, health care barriers, and Social Determinants of Health which negatively impact residents' ability to obtain and maintain good health status.

Executive Summary

Methodist Le Bonheur Healthcare and community partners Shelby County Health Department, Regional One Health, Baptist Memorial Health Care, and St. Jude Children's Research Hospital administered the Key Informant (KI) Survey to various leaders within the Shelby County and surrounding areas. Community Health Needs Assessment (CHNA) partners provided the names of leaders which their agency considers a stakeholder, including a diverse group of leaders from health care professionals, social services providers, non-profit, business, faith-based organizations and other community leaders. Regional One Health spearheaded the administration of Key Informant Survey so that KIs would only be contacted once by one organization within this portion of the CHNA process. On behalf of Regional One Health, data from this survey was gathered and incorporated into the report created by Holleran, an independent research firm located in Wrightsville, Pennsylvania.

A total of 26 key informants completed the survey, with the largest percentage of informants being affiliated with Health Care/Public Health Organizations (48%), Non-Profit/Social Services (20%), and Education (16%). Among the informants, the majority identify themselves as primarily serving traditionally underserved populations, with 85% stating that they would not consider the communities in the area as "healthy," and 58% stating the communities' overall health status as "Poor." The survey displays the KIs' assessment of Shelby County's key health issues, health care barriers, and Social Determinants of Health which negatively impact residents' ability to obtain and maintain good health status.

KIs reported that the top five health issues within Shelby County as Overweight/Obesity (30.8%), Mental Health (19.2%), Accessing Health Care Service (19.2%), Maternal, Infant and Child Health (11.5%), and Unintentional Injuries and Violence (7.7%). The top three most significant barriers that keep residents from accessing healthcare were stated as residents' inability to have basic needs met (76.9%); lack of transportation (76.9%); and lack of health literacy (73.1%). The Social Determinants of Health perceived to be in the poorest of condition were that of *Neighborhood and Built Environment, Economic Stability*, and *Education*.

Findings from this survey demonstrate how KIs recognize the need to improve the health and well-being of Shelby County residents by addressing the external, social factors (Social Determinants of Health) that hinder residents from receiving access and utilization of health care services. Nevertheless, these findings also display how KIs are willing to enhance their collaborations among various community-based organizations in order to make a better and healthier Shelby County.

Overview

In order to assess the community's health needs and to meet the IRS's requirement that an agency "solicit and take into account input received from persons who represent the broad interests of that community, including those with special knowledge of or expertise in public health," Methodist Le Bonheur Healthcare and community partners Shelby County Health Department, Regional One Health, Baptist Memorial Health Care, and St. Jude Children's Research Hospital administered the Key Informant (KI) Survey to various leaders within the Shelby County and surrounding area. KIs are the stakeholders within the community whose companies have social, political and/or economic pull to positively affect the community's health. CHNA partners provided the names of leaders which their agency considers a stakeholder, including a diverse group of leaders from health care professionals, social services providers, non-profit, business, faith-based organizations and other community leaders. From this provision the names were compiled in order to erase duplication of names and to create a master list of stakeholders.

Survey Administration

Regional One Health spearheaded the administration of Key Informant Survey so that KIs would only be contacted once by one organization within this portion of the CHNA process. KIs were emailed the KI Survey during April 1 through April 15, and were asked questions focused around health issues/ barriers for people in the community, health care access, underserved population, and how to increase the overall health of Shelby County and the surrounding area. On behalf of Regional One Health, data from this survey was gathered and incorporated into the report created by Holleran, an independent research firm located in Wrightsville, Pennsylvania. (See Appendix A and B for full KI Survey and survey results).

TABLE 1. KEY INFORMANT SURVEY OVERVIEW

| Health Topic | Questions related to Health Topic | Purpose of Questions regarding Health Topic |
|---------------------|---|---|
| Key Health Issues | 6 questions | Perception of the community's overall health |
| | | status; select the top five health issues of the |
| | | community; indicate the most significant health |
| | | issue within the community. Comment sections to |
| | | list community resources which can address health |
| | | issues and any other information about the |
| | | community's health status. |
| Access to Care & | 6 questions | Ability to access various resources; significant |
| Barriers | | barriers that keep people in the community from |
| | | accessing health care; other barriers to health care; |
| | | underserved populations within the community. |
| Social Determinants | 3 questions | Key areas of the Social Determinants of Health |
| of Health | | within the community; healthcare resource/service |
| | | that are lacking or not affordable within the |
| | | community; additional information regarding need |
| | | and accessibility of healthcare resources/services. |
| Open-Ended: | 3 questions | Challenges people face in attempt to maintain |
| Challenges & | | healthy lifestyles; detail of activities in the |
| Solutions | | community regarding health and quality of life; |
| | | suggestions to improve health and quality of life in |
| | | the community. |
| Demographics | 3 questions | Representative category of their community |
| | | affiliation, the specific populations which their |
| | | organization serves, and their organization's |
| | | engagement status concerning community |
| | | collaborations. |
| Closing | 1 question | Feedback for Regional One Health and community |
| | | partners that can guide community health partners |
| | | to improve community health activities. |

Key Findings

A total of 26 key informants completed the survey, with the largest percentage of informants being affiliated with Health Care/Public Health Organizations (48%), Non-profit/social services (20%), and Education (16%). Among the informants, the majority identify themselves as primarily serving traditionally underserved populations, with 85% stating that they would not consider the communities in the area as "healthy," and 58% stating the communities' overall health status as "Poor." Nevertheless, 96% of key informants feel that their organization collaborates with other organizations/institutions on local efforts to improve health in the community.

A summary of the key findings from this survey are summarized in Table 2. To view the actual survey tool and/or to learn more in-depth analysis of the report of this survey please read Appendix A.

TABLE 2. KEY FINDINGS OF THE RESPONSES TO THE 2019 CHNA KEY INFORMANT SURVEYS

| Health Topic | Response of Key Informants |
|--|--|
| Key Health Issues | Top 5 Health Issues - Overweight/Obesity (30.8%) - Mental Health (19.2%) - Accessing Health Care Services (19.2%) - Maternal, Infant and Child Health (11.5%) |
| | - Unintentional Injuries and Violence (7.7%) |
| Access to Care & Barriers | Perceived "most significant barriers that keep residents in the community from accessing healthcare": Residents' inability to have basic needs met (76.9%) Lack of transportation (76.9%) Lack of health literacy (73.1%) Inability to navigate health care system (69.2%) Inability to pay out-of-pocket expenses (i.e. co-pays, prescriptions, etc.) (69.2%) Lack of health insurance (69.2%) Lack of trust (69.2%) |
| Social Determinants of Health | Social Determinants of Health where the majority of Key Informants classified as "Very poor" or "Poor" - Neighborhood and built environment (88.5%) - Economic stability (84.6%) - Education (80.8%) - Social and community context (73.1%) - Health and health care (53.8%) |
| Open-Ended: Challenges & Solutions | Overall, comments within this section were hopeful about addressing the health and social needs of Shelby County residents, by educating community members and leaders of the Social Determinants of Health that have a negative impact on health outcomes. |

Discussion

Findings from this survey demonstrate three important points about the health status of Shelby County community members:

- Key informants perceive that there is great need to improve the health and well-being of Shelby County residents
- Key informants are aware that there are external, social factors (Social Determinants of Health) that hinder Shelby County residents from receiving access and utilization of health care service
- Key informants have and are willing to enhance their collaborations among various community-based organizations in order to improve the access and utilization of health and social services within the community

Findings within this survey give hope to the potential that various organizations can use their current endeavors and collaborate to make a better and healthier Shelby County.

Appendix A: Key Informant Report and Survey

Community Health Needs Assessment

2019

KEY INFORMANT SURVEY





May 2019

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STUDY OVERVIEW

Background

Regional One Health is spearheading a comprehensive assessment of the health needs of individuals living in Shelby County, Tennessee. The aim of the assessment is to reinforce Regional One Health's commitment to the health of residents and to align its health prevention efforts with the community's greatest needs.

The Patient Protection and Affordable Care Act of 2010 set forth new requirements for nonprofit hospital organizations in order to maintain their tax exempt status as a charitable hospital, 501(c)(3). One of the new regulations is a requirement that all nonprofit hospitals must conduct a Community Health Needs Assessment (CHNA) and adopt an implementation strategy that meets the community health needs identified in the assessment every three years. Regional One Health has conducted previous CHNA's during the fiscal years 2013 and 2016 to identify needs and resources in the community. Regional One Health considers the community they serve to include not only the neighborhoods surrounding the campus on Memphis' downtown corridor, but also extends to the tristate area of West Tennessee, Arkansas, Mississippi, and beyond. In an effort to increase collaboration during the key informant study, Regional One Health partnered with the Shelby County Health Department, Baptist Memorial Health Care Corporation, Methodist LeBonheur Healthcare, and St. Jude Children's Research Hospital.

Methodology

A key informant survey was conducted with a total of 26 key informants between April 1 and April 15, 2019. Key informants are defined as community stakeholders with expert knowledge, including public health and health care professionals, social service providers, non-profit leaders, business leaders, faith-based organizations, and other community leaders. Participants included public health and health care professionals, non-profit/social service providers, education specialists, business leaders, and government housing/transportation agencies. Questions were focused around health issues and barriers for people in the community, health care access, underserved populations, and how to increase the overall health of Shelby County and the surrounding areas.

The data were gathered and integrated into the report by Holleran, an independent research firm located in Wrightsville, Pennsylvania.



Organization Overview

Regional One Health is home to the oldest hospital in Tennessee, chartered in 1829. Throughout its more than 180-year history, the acute care hospital has evolved significantly, housing a children's hospital, tuberculosis hospital, military hospital, maternity hospital and ultimately the Regional Medical Center, which is home to nationally recognized Centers of Excellence and a commitment to providing quality healthcare to all citizens of the Mid-South.

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

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

The core programs and services within Regional One Health include:

- Main Campus
 - Regional Medical Center an acute care hospital providing the Mid-South with the highest quality healthcare.
 - Centers of Excellence
 - The Elvis Presley Trauma Center a designated Level 1 Trauma Center in Tennessee, Mississippi and Arkansas.
 - Firefighters Burn Center a full-service Burn Center that features 14 beds, an
 outpatient clinic, surgery facilities, a rehabilitation center, a research division, and
 special cutting-edge burn care equipment. It is the only full-service Burn Center
 of its kind within a 150-mile radius of Memphis.
 - Sheldon B. Korones Newborn Center one of the oldest and largest neonatal intensive care units in the United States.
 - High-Risk Obstetrics Program receives 1,500 referrals annually due to complications in pregnancy. The facility has all the comforts of home, as well as the sophisticated equipment necessary to handle complications during delivery.
 - The Rehabilitation Hospital a 23-bed inpatient facility in a newly renovated space with attractive, spacious private rooms.
 - Extended Care Hospital treats a variety of patients that require longer lengths of stay (18 to 35 days) than in a traditional acute care hospital.
- East Campus
 - Center for Rehabilitative Medicine a collaborative effort designed to help patients increase wellness through an effective three-part approach which includes State-Of-The-Art Technology, Innovative Care Plans, and Thoughtful Analysis.
 - East Campus Imaging Center a new, state-of-the-art facility is designed to enhance the quality of care, comfort and convenience for all patient's imaging needs.
 - East Campus Multispecialty Care a new site that offers primary care and specialty services, such as Internal Medicine, Cardiology, Endocrinology, Nephrology, Neurology, and Rheumatology.



KEY INFORMANT INTERVIEWS

Holleran staff worked closely with Regional One Health to identify key informant participants. A total of 26 key informants completed the survey between April 1 and April 15, 2019. The largest percentage of informants are affiliated with Health Care/Public Health Organizations (48%), followed by Non-profit/social services (20%), and Education (16%). A full list of key informants and their organizations can be found in Appendix B. It is important to note that the results reflect the perceptions of some community leaders, but may not represent all community perspectives.

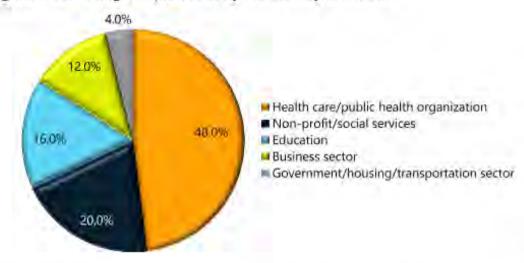


Figure 1. Percentage respondents by community affiliation

The vast majority of respondents work in organizations that primarily serve traditionally underserved populations, such as Black/African Americans, Children/youth, Hispanic/Latinos, Women, Low income/poor, and Men. Fortunately, 96% of respondents feel that their organization collaborates with other organizations/institutions on local efforts to improve health in the community. Since collaboration amongst local organizations and entities is crucial to the implementation of the Community Health Needs Assessment (CHNA), this statistic is encouraging.

Furthermore, it is important to review the overall perceptions of the community. Nearly 85% of key informants overwhelmingly state that they would not consider the communities surrounding Regional One Health as healthy. In addition, the majority of respondents (57.7%) rate the communities overall health status as "Poor."

20 Total Respondents 15 10 5 0 Disabled Women Homeless Hispanic/Latino now income/poor Families community Asian/Pacific mmigrant/ Black/African Children/youth Seniors/elderly underinsured American Indian/ Other (specify): LGBTQ+ refugee Uninsured/ Alaska Native American Islander

Figure 2. Total respondents by specific population their organization primarily serves

I. Key Health Issues & Barriers

Key Health Issues

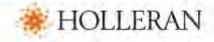
Key informants were asked to determine the 5 most pressing health issues in their community from a list of 18 focus areas identified in the survey. The issues of Overweight/obesity, Mental health, Accessing health care services, Maternal, infant, and child health, and Unintentional injuries and violence are identified by key informants as the top 5 health issues in their communities.

In 2016, key informants were also asked to provide their top 5 most pressing health issues for the community. The top result of both key informants studies was "Overweight/obesity." Also, in 2016 Mental health/suicide was stated by 54.5% of respondents as being a top 5 key health issue. In 2019, this number increased to 65.4% of key informants stating Mental health was a top 5 key health issue. It should be noted that in 2019, Mental health and Suicide were separated into two independent categories. There were no key informants who stated Suicide was a top 5 health issue in the community.

Interestingly, Heart disease and Diabetes fell out of the top 5 in 2019, but were replaced with Maternal, infant, and child health, and Unintentional injuries and violence.

When asked to specify which health issue was the most significant, the majority of key informants stated Overweight/obesity was the most important, while Mental health and Accessing health care services were the second most significant (See Figure 3). In 2016, key informants felt these same three issues were the most significant; however Access to Care/uninsured was listed as the most significant.

The following figure depicts the top five most significant health issues as a percentage of respondents who see it as the most significant in the community. In addition, Table 1 summarizes the number of times an issue is mentioned and the percentage of respondents that rate the issue as being one of the top five health issues in their community in 2019 and 2016.



50.0% 40.0% 30,8% 30.0% 19.2% 19,2% 20.0% 11.5% 7.7% 10.0% 0.0% Overweight/abesity Accessing health Mental health Other (specify): Unintentional care services. injuries and violence including domestic violence, firearmrelated violence, and motor vehicle accidents

Figure 3. Ranking of most significant health issues in the community

Table 1: Comparison ranking of the most pressing key health issues (2019 and 2016)

| | | 2019 | 2016 | |
|--|-------|--|-------------------------------|--|
| Key Health Issue | Count | Percent of respondents who selected the issue* | Count | Percent of respondents who selected the issue* |
| Mental health | 17 | 65.4% | 30 | 54.5% |
| Overweight/obesity | 17 | 65.4% | 49 | 89.1% |
| Accessing health care services | 14 | 53.8% | 40 | 72.7% |
| Maternal, infant, and child health | 13 | 50.0% | 21 | 38.2% |
| Unintentional injuries and violence including domestic violence, firearm-related violence, and motor vehicle accidents | 12: | 46.2% | No | t asked in 2016 |
| Diabetes | 11 | 42.3% | 35 | 63,6% |
| Heart disease | 10 | 38.5% | 27 | 49.1% |
| Cancer | 7 | 26.9% | 12 | 21.8% |
| Substance abuse | 7 | 26.9% | 23 | 41.8% |
| Other (specify): | 5 | 19.2% | 9 | 16.4% |
| Sexually transmitted diseases including HIV/AIDS | 4 | 15.4% | 8 | 14.5% |
| Teen pregnancy | 3 | 11.5% | No | t asked in 2016 |
| Alzheimer's disease/dementia | 2 | 7.7% | No | t asked in 2016 |
| Stroke | 2 | 7.7% | 7 | 12,7% |
| Tobacco use | 2 | 7.7% | 2 | 3,6% |
| Oral health | 4 | 3,8% | No | t asked in 2016 |
| Respiratory diseases | 1 | 3,8% | No | t asked in 2016 |
| Suicide | 0 | 0.0% | Included with "Mental health" | |

^{*}Respondents could select more than one option, therefore the percentages may sum to more than 100.0%.

Respondents were also asked to share information regarding what resources are available in the community to address the health issues identified. Summaries of responses are listed below.

Select Comments Regarding Resources Available:

- "There are certainly issues such as food deserts, or lack of access to healthy foods. And there are opportunities, particularly with young people and the various neighborhood, school and youth organization gardens to encourage and teach young people healthy eating habits."
- "Multiple resources are available -- unfortunately there is lack of coordination. The OneHealth initiative (Camden) is helping CARE Network Navigators Transition to Success/Driving the Dream show promise."
- "Lots of programs and resources, but how to engage people or reduce barriers that hinder them understanding their need for care, compliance with chronic disease management."
- "Places like Regional One are addressing some of those needs and are trying really hard to educate our community to eat healthier and exercise more, but Memphis in general I feel isn't quite where it needs to be in terms of overall healthy living and eating."

Respondents were also asked to share information regarding these key health issues and their reasons for ranking them this way. Summaries of responses are listed below.

Select Comments Regarding Key Health Issues:

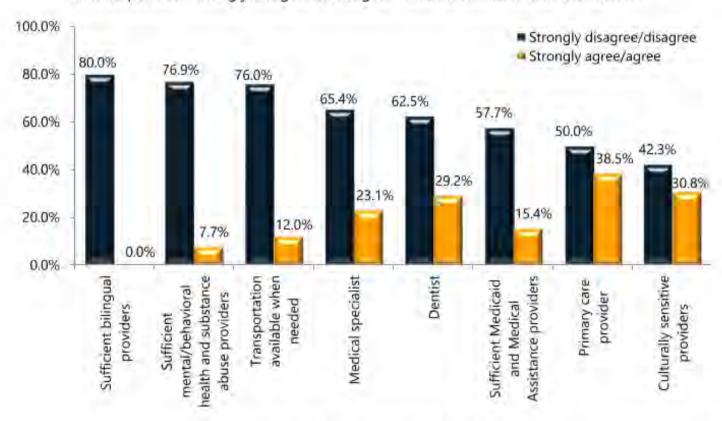
- "I selected overweight/obesity because it is an underlying condition that increases diabetes and heart conditions in our community. Reducing overweight/obesity could, therefore, eventually reduce diabetes and heart conditions."
- "The reason overweight/obesity should be a high priority issue to address is because it leads to so many of the other chronic and critical illnesses/diseases that are prevalent in our community (i.e. diabetes, hypertension, cardiovascular disease, cancer). Overweight/obesity also plays a major role in mental health, especially in youth, which can lead to other risky behaviors. This issue is also extremely costly, not only to the healthcare industry, but business as well in terms of absenteeism, loss of productivity, medical claims, disability claims, etc. Almost 40% of our youth are either overweight or obese. 75%-80% of these youth will be obese adults which will affect not only quality of life and personal earning potential, but also our city and county's future economic and workforce development."
- "Cancer, diabetes and heart disease are serious issues in all communities and Memphis seems to have higher rates of diabetes and heart disease than other parts of the country - most certainly related to overweight/obesity. Regional One Health is at the forefront as the city's Level One trauma center when it comes to unintentional injuries and violence."



Access to Care & Barriers

Respondents were asked to select the most significant barriers that keep residents in the community from accessing healthcare. The majority of respondents indicate the inability to have basic needs met (76.9%) and a Lack of transportation (76.9%) as being a significant barrier. This relates to the Social Determinant finding that the majority of key informants feel that the Economic stability of the community (84.6%) and the Neighborhood and built environment (88.5%) are "Very Poor" or "Poor." Also, 76% of key informants "Strongly disagree" or "Disagree" that Transportation (public, personal, or other service) for medical appointments and other services is available to area residents when needed (See Figure 4).

Figure 4. Percentage of respondents who responded as "Strongly agree or agree" as compared to those who responded "Strongly disagree or disagree" with the health care access factors.*



*See Appendix A: Key Informant Survey Tool, for full factor and response options

One key informant reflected on their selection of the most significant barrier:

"It is very difficult to choose a most significant. Fear is certainly an underlying barrier...fear of cost, fear of tests/screenings, fear of getting bad news about one's health, fear of something "hurting," fear of not understanding, etc. Certainly, inability to pay or not having health insurance are big barriers to accessing healthcare. Lack of health literacy is also a large barrier. Many people do not know/understand the importance of wellness visits and screenings and how those can have a significant and positive impact on their life, but also plays a big role in future success in their children's lives. But, at

the end of the day, health/healthcare, wellness and preventative screenings are likely the furthest thing from one's mind, if their basic needs are not being met and they are in survival or crisis mode."

The barrier that was selected the second most often by key informants was the Lack of health literacy (See Table 2). When asked to rate which one barrier is the most significant, key informants rated the Inability to navigate health care system (15.4%) and Lack of health insurance coverage (15.4%) as the 2nd most significant. These two findings can have disastrous effects on the community if residents do not have the financial means or basic knowledge of the health care system. Consequently, 84.6% report that they think most uninsured and underinsured individuals living in the area go to the Hospital emergency department when they are in need of medical care. It is possible that many of these visits are unnecessary and could be handled by a primary care physician. This could cause an unneeded financial and personnel strain on the emergency department and community health system.

Table 2: Most significant barriers

| Key Health Barrier | Count | Percent of respondents who selected the issue* | Percent of respondents who selected the issue as the most significant |
|---|-------|--|---|
| Basic needs not met | 20 | 76.9% | 42.3% |
| (food/water/shelter/employment/environmental safety) | 20 | 76.9% | 0.00/ |
| Lack of transportation | | | 0.0% |
| Lack of health literacy | 19 | 73.1% | 3.8% |
| Inability to navigate health care system | 18 | 69.2% | 15.4% |
| Inability to pay out-of-pocket expenses (co-pays, prescriptions, etc.) | 18 | 69.2% | 3.8% |
| Lack of health insurance coverage | 18 | 69.2% | 15.4% |
| Lack of trust | 18 | 69.2% | 0.0% |
| Availability of healthy food options | 16 | 61.5% | 3.8% |
| Emotional/physical stress | 16 | 61.5% | 3.8% |
| Language/cultural/racial/spiritual barriers | 14 | 53.8% | 0.0% |
| Lack of preventive health care (screenings, annual check-ups, etc.) | 12 | 46.2% | 0.0% |
| Time limitations (long wait times, limited office hours, time off work) | 12 | 46.2% | 3.8% |
| Lack of social support (family, friends, social network) | 11 | 42.3% | 3.8% |
| Availability of health and wellness programs/education | 10 | 38.5% | 0.0% |
| Availability of providers/appointments | 9 | 34.6% | 0.0% |
| Lack of safe parks/recreation outlets | 7 | 26.9% | 0.0% |
| Other (specify): | 2 | 7.7% | 3.8% |

^{*}Respondents could select more than one option, therefore the percentages may sum to more than 100.0%.

It is important to compare the statistics in Table 2 to determine which barriers key informants feel are the most significant. For instance, Lack of transportation was selected by 76.9% of key informants as being significant, but no one selected it as the most significant barrier. Also, 76% "Disagree" or "Strongly disagree" that transportation is available when needed for medical appointments (See Figure 4). Key informants feel there is a lack of transportation in the community but it is not the most significant barrier for residents in the community when seeking out health care.

Conversely, 76.9% of key informants selected Basic needs not being met and also chose it as the most significant barrier to health care (42.3%). This major finding reveals that a large minority of key informants feel strongly that residents in the community struggle to have their basic needs met. This finding could be the root cause of the other barriers and key health issues in the community.

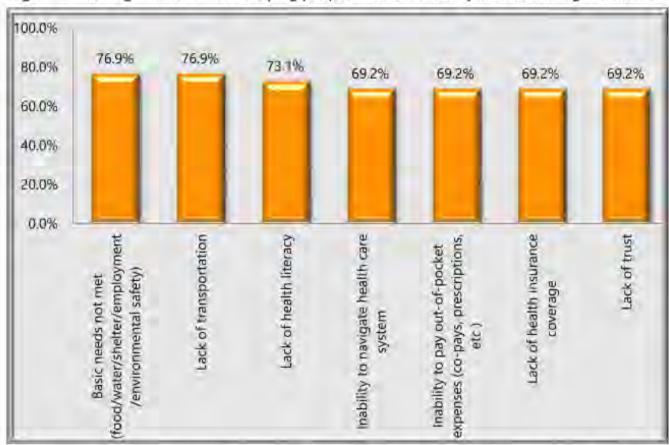


Figure 5. Most significant barriers keeping people in the community from accessing healthcare*

^{*}Respondents could select more than one option, therefore the percentages may sum to more than 100.0%.

Additionally, respondents were asked to share information regarding these barriers to health care. Summaries of responses are listed below.

Select Comments Regarding Most Significant Barriers:

- "Inability to pay out of pocket expenses and lack of health insurance go hand in hand. If you can't afford to pay for your health care, that often includes being unable to cover the premiums:"
- "Difficult to select just one. I chose inability to navigate the health care system. In reality, what has been created is a health care system that is impossible to navigate. I have a master's degree and find myself challenged at times to make sense of it. Few elements of the healthcare system are designed with the patient in mind."

Social Determinants of Health

Key informants were asked to rate the quality of five key areas of Social Determinants of Health within the community. Defined by Healthy People 2020, these are conditions in the environments in which people are born, live, learn, work, play, worship, and age. The conditions affect a wide range of health, function, and quality-of-life outcomes and risks. The findings reveal important areas in which the community struggles and excels, as well as the underlying causes of other key health issues. Table 3 and Figure 6 illustrate these findings.

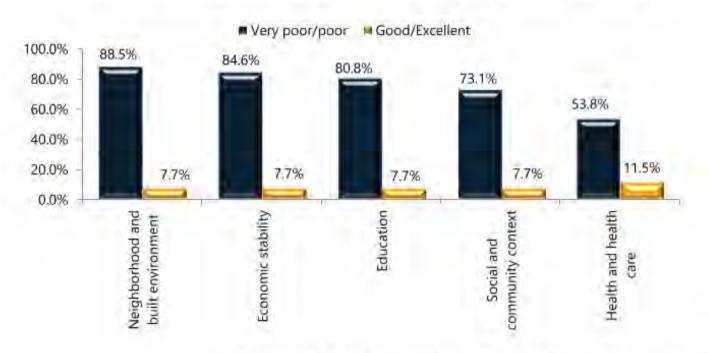
Table 3: Percentages of respondents who selected each rating of social determinant

| Social Determinant | | Percent of respondents who selected the rating | | | | | | |
|---|-------|--|---------|------|-----------|------|--|--|
| | | Poor | Average | Good | Excellent | N/A | | |
| Economic stability (poverty, employment, food security, housing stability) | 46,2% | 38.5% | 7.7% | 7.7% | 0.0% | 0.0% | | |
| Education (early childhood education and development, enrollment in higher education, high school graduation, language and literacy) | 15.4% | 65.4% | 11.5% | 3.8% | 3.8% | 0.0% | | |
| Social and community context (social cohesion, civic participation, perceptions of discrimination and equity, incarceration/institutionalization) | 15.4% | 57.7% | 11.5% | 7.7% | 0.0% | 7.7% | | |
| Neighborhood and built environment (access to foods that support healthy eating patterns, quality of housing, crime and violence, environmental conditions, transportation) | 46.2% | 42.3% | 3.8% | 3.8% | 3.8% | 0.0% | | |
| Health and health care (access to health care, access to primary care, health literacy) | 19.2% | 34.6% | 30.8% | 7.7% | 3.8% | 3.8% | | |

Interestingly, Health and health care had the highest percentages of respondents that selected "Average" (30.8%). Even though Access to health care services was listed as the most significant barrier facing the community, respondents may feel that the services being provided are hard to obtain but when they are utilized, there are average, at best.

The overwhelming majority of key informants selected that a given social determinant was Very Poor or Poor. This finding relates to key informants view of Access to care in the community (See Figure 6). As the second most significant barrier, Access to care can be influenced by many factors. If the community does not have the financial, educational, or social means to live safely, then Access to care can become the problem and solution to many issues. It can be a vicious cycle that must be broken in order to positively impact the community and its residents.

Figure 6. Percentage of respondents who responded as "Very Poor" or "Poor" as compared to those who responded "Good or Excellent" with the Social Determinant factors.*



*See Appendix A: Key Informant Survey Tool, for full factor and response options

II. Healthcare Services

The second set of questions dealt with the ability of residents in the community to access support and healthcare services. Key informants were asked to rate if services are Missing, Lacking, Not Affordable, Need Being Met, or they Don't Know.

Available Resources/Services

Access to Support Services appears to be a significant issue in the community. As illustrated in Table 4, the top three services selected by key informants as "Need Being Met" did not include any selection of "Missing." It seems that respondents feel that these services (Emergency care, Corporate health screenings/education programs (on-site for employees), Federally qualified health centers (FQHCs)) are meeting the needs of the community. This is encouraging seeing as key informants feel the majority of underinsured/uninsured individuals seek out medical care at the Hospital emergency department (84.6%).

Table 4. Top five available support services

| Support Service | Percentage of respondents who stated the "Need Being Met" | Percentage of respondents who stated "Missing" | |
|--|---|--|--|
| Emergency care | 52.0% | 0.0% | |
| Corporate health screenings/education programs (on-site for employees) | 40.0% | 0.0% | |
| Federally qualified health centers (FQHCs) | 36.0% | 0.0% | |
| Health education/information/outreach | 20.8% | 8.3% | |
| Preventive health screenings (blood pressure, diabetes, stroke, etc.) | 20.0% | 4.0% | |

Missing and Lacking Resources/Services

Respondents were asked to identify key support and healthcare services missing in the community. Key informants most often list Mental health services, Substance abuse services, Transportation, Prescription assistance, Healthy food options, Free/low cost dental care as "Missing" support services in the community. With the recent national trend towards increasing mental healthcare and substance abuse awareness, the local community still seems to struggle with the increased need of residents seeking out this type of service.

On average, respondents list "lacking" more often than other categories in Healthcare Resources/Service. Top services selected by key informants as "Lacking" are Free/low cost medical care, Bilingual services, Multicultural/bilingual healthcare providers (All 76.0%). It seems there may be providers of these services in the community but it may not be enough to meet the demand. One key informant echoed this finding, "Access doesn't just mean having a doctor or nurse practitioner available to see a patient. It includes the financial access to see a provider, as well as the wrap around services to get to that provider and then follow through with the provider's instructions. And there are certainly areas such as mental health, substance abuse, etc., where there are nowhere near the level of services available to meet the demand."



Figure 7. Top healthcare resource/services "Missing" in the community

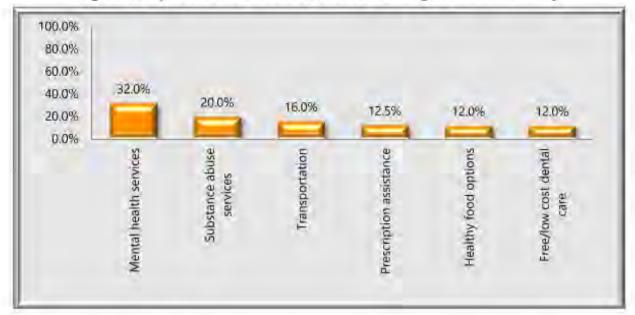
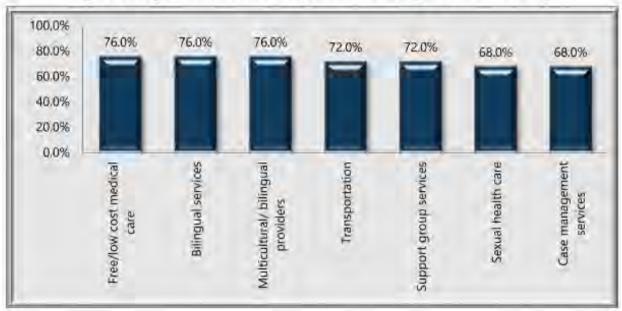


Figure 8. Top healthcare resource/services "Lacking" in the community



Respondents were asked to share information regarding Healthcare Resources and Services. Summaries of responses are listed below.

Select Comments Regarding the Need and Accessibility of Healthcare Resources and Services:

- "There is high variability amongst populations within Shelby County."
- "People talk a lot about access to health care. Those who designed the survey and are interpreting the survey results are savvy enough to already know that access doesn't just mean having a doctor or nurse practitioner available to see a patient. It includes the financial access to see a provider, as well as the wrap around services to get to that provider and then follow through with the provider's instructions. And there are certainly areas such as mental health, substance abuse, etc. where there are nowhere near the level of services available to meet the demand. It must be overwhelming for a facility such as Regional One Health to serve a community with so many needs needs which are often left for them to meet as the community's "safety net" provider."

IV. Open-Ended Comments

Finally, key informants were given the opportunity to provide additional feedback in the form of openended comment fields. Many respondents took this chance to voice their concerns while also providing valuable information and insights into the community that they serve.

Key informants were first asked, "What challenges do people in the community face in trying to maintain healthy lifestyles like exercising and eating healthy and/or trying to manage chronic conditions, such as diabetes or heart disease?"

The underlying theme of these comments surrounds the level of poverty in the community as well as the lack of healthy, affordable dining options. In general, key informants agree that the major health issues and social determinants of the community are related and that solving one issue may help with multiple others.

Select Comments regarding Challenges for People in the Community Trying to Maintain a Healthy Lifestyles:

- "I have come to believe that the main challenge is a culture challenge. Memphians need to see other Memphians (like themselves) living healthy lifestyles. Grass root, neighborhood-focused efforts, with leadership from within the community that is mentored by those that can suggest strategies that work, is probably essential."
- "Often the biggest issue is the individual desire to live a healthy lifestyle. It is hard to change a lifestyle if everyone else in your life is living an unhealthy lifestyle - and unlikely to change. This is true for people at all socio-economic levels. It's great that we do have a number of programs making and attempting to make a difference - and they would likely tell you that it really does take someone willing to commit and remain committed to a healthy lifestyle."
- "Affordable fitness centers, access to grocery stores, and inability to pay for medication."
- "Poor built environment. Poor health literacy. No access to primary care."



Next, key informants were asked, "In your opinion, what is being done well in the community in terms of health and quality of life? (Community Assets/Strengths/Successes)." Overall, they feel there are many programs available in the community, but the overall sentiment is that much more needs to be done.

Select Comments regarding What is Being Done Well in the Community:

- "Church Health and St. Jude help without regard for ability to pay. We're investing in pre-K education, finally."
- "Mayor Harris has prioritized healthy eating, active living and mental health and well-being."
- "Some larger employers are offering sufficient benefits, access to healthy living coaching and opportunities to exercise."
- "This is a great community where healthcare organizations have tried very hard to serve the community."

Key informants were then asked, "What recommendations or suggestions do you have to improve health and quality of life in the community?" The majority of these recommendations surrounded the need to reduce poverty in the community. Quite a few respondents stated that decreasing barriers and increasing access to healthcare are needed to accomplish this goal. However, several key informants reflected on the political climate and lack of funding for public works projects.

Select Comments regarding Recommendations and Suggestions:

- "Partner with the City of Memphis (and other municipalities) libraries and community centers to get to our young people engaged. Partner with Shelby County Schools (and other municipalities) school districts to get our young people engaged. Partner with the youth serving organizations in Shelby County to get our young people engaged. Let them help design a healthy lifestyle and a health system that works for them, their families and the community."
- "We need to invest in public education, public transportation, and a national/public health care system."
- "Need to address community and environmental systems that drive health and adversity, need to make healthcare equitable and accessible for all, promoting families and resiliency, invest in education, invest in transportation, invest in healthy food options."
- "Focus on reducing poverty and investing in quality education to create equity and better quality of life or opportunities for all in the community. People need more opportunities for quality paying jobs with benefits."

Lastly, key informants were asked to provide additional feedback to help inform Regional One Health and its partners during their health improvement planning and community health needs improvement.

Select General Feedback for Regional One Health:

- "The survey is good and an active panel should be formed to address the needs of this community. We need to do more!! I'm willing."
- "I neglected to include a shout out for the Advance Childhood Experiences work being done in our community, which is very important. AND, it is important to encourage education as a way to develop critical thinkers capable of making better health choices. Thanks for all Regional One Health does for the greater Memphis area."

V. Conclusions

Consistent themes can be seen across the responses and feedback provided by key informants. Overweight/obesity was selected as the main issue facing the community. This issue is echoed in the barriers section as the majority of key informants find that the Availability of healthy food options to be a barrier.

Compounding the obesity epidemic is the most significant barrier of Basic needs not met. Key informants feel that residents in the community do not feel safe, nor do they have appropriate access to shelter, food, or water. This issue must be addressed before other barriers are removed. The community must feel safe and foster conditions that are conducive to healthy living before most significant issues can be tackled.

These two major issues can be the source of many other health concerns for the community. When residents cannot have their basic needs met, they are unable to live healthy lives. Obesity is a preventable problem that can lead to many other, serious health issues. Addressing this issue in the community could reduce the strain on the health care system and lives of residents.

Another theme coming through in the results is the complexity of the health care system. Key informants regularly note the Lack of preventive health care, Inability to navigate health care system and Inability to pay out-of-pocket expenses as major barriers for the community. These barriers are related to the lack of basic needs being met in the community, but this is a complex, nation-wide issue.

While there are many focus areas key informants recognize as needing improvement, there are still bright spots within the community. Additionally, 96% of key informants feel their organization collaborates with other organizations/institutions on local efforts to improve health in the community. This is a huge step in the right direction. Collaboration and creativity are keys towards approaching and tackling all the barriers and health issues listed by key informants. As one respondent put it, "Memphis Business Group on Health is interested in working collaboratively to engage this important segment of businesses in simple approaches that can have significant impact in creating a culture of health at the worksite." There seems to be a plethora of people in the community that wish to



contribute and work towards a common goal of a healthier community. There are many areas of improvement for Shelby County, but no single entity can work in a vacuum. However, there appears to be many residents and leaders in the community that are focused on the improvement of health care. It should be a goal for Regional One Health to identify these individuals are and provide them with the tools to succeed.

APPENDIX A: KEY INFORMANT SURVEY TOOL



INTRODUCTION

KEY HEALTH ISSUES

As part of its ongoing commitment to improving the health of the communities it serves, Regional One Health is partnering with the Shelby County Health Department and multiple healthcare systems to conduct portions of a comprehensive Community Health Needs Assessment.

The results of the survey will be compiled and shared with all of the organizations in the CHNA Collaboration including Shelby County Health Department, Baptist Memorial Health Care Corporation, Methodist LeBonheur Healthcare, and St. Jude Children's Research Hospital.

The survey should take about 10-15 minutes to complete. Please be assured that all of your responses will go directly to our research consultant, Holleran Consulting, and will be kept strictly confidential. Please note that while your responses, including specific quotations, may be included in a report of this study, your identity will not be directly associated with any quotations.

You have been identified as an individual with valuable knowledge and opinions regarding community health needs, and we appreciate your willingness to participate in this survey.

When answering the questions, please consider the community and area of interest to be the communities surrounding Shelby County.

1. Thinking of all the greas that you feel make up a healthy community, would you describe t

| 1. | Thinking of all the areas that you feel make up a healthy community, would you describe the communities surrounding Regional One Health as healthy? | |
|----|---|--|
| | Yes No | |
| | □ Don't know | |
| 2, | In general, how would you rate your community's overall health status? | |
| | Good | |
| | ☐ Average ☐ Poor | |
| | ☐ Very poor | |

| Accessing health care services | Respiratory diseases |
|---|--|
| Alzheimer's disease/dementia | Sexually transmitted diseases including HIV/AIDS |
| Cancer | Stroke |
| Diabetes | Substance abuse |
| Heart disease | Suicide |
| Maternal, infant, and child health | Teen pregnoncy |
| Mental health | Tobacco use |
| Oral health | Unintentional injuries and violence including domestic |
| Overweight/obesity | violence, firearm-related violence, and motor vehicle |
| Other (specify): | accidents |
| | 2200770 |
| Of those health issues mentioned, which 1 | is the most significant? (CHOOSE 1) |
| Accessing health care services | Respiratory diseases |
| Alzheimer's disease/dementia | Sexually transmitted diseases including HIV/AIDS |
| Cancer | Stroke |
| Diabetes | Substance abuse |
| Heart disease | Suicide |
| Maternal, infant, and child health | Teen pregnancy |
| Mental health | Tobacco use |
| Oral health | Unintentional injuries and violence including domestic |
| Overweight/obesity | violence, firearm-related violence, and motor vehicle |
| Other (specify): | accidents |
| Oller (specify): | decidents |
| | |
| What recourses are available in the comm | nunity to address the health issues you identified? |
| wild resources are available in the confi | nomity to dodress the reality issues you identified: |
| | |
| | |
| | |
| | |
| Dispus there are additional information a | handler there handle former and recorded to succeed the |
| | egarding these health issues and reasons to support your |
| response in the box below: | |
| | |
| | |
| | |

ACCESS TO CARE & BARRIERS

 On a scale of strongly disagree through strongly agree, please rate each of the following statements about Health Care Access in the community.

Strongly Disagree ← → Strongly Agree

| Residents in the area are able to access a primary care provider when needed. (Family Doctor, Pediatrician, General Practitioner) | Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree |
|---|--|
| Residents in the area are able to access a medical specialist when needed. (Cardiologist, Dermatologist, Neurologist, etc.) | Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree |
| Residents in the area are able to access a dentist when needed. | Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree |
| There are a sufficient number of providers accepting Medicaid and Medical Assistance in the area. | Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree |
| There are a sufficient number of bilingual providers in the area. | Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree |
| Providers in the area are culturally sensitive to race, ethnicity, and cultural preferences of patients. | Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree |
| There are a sufficient number of mental/behavioral health and substance abuse providers in the area. | ☐ Strongly Disagree ☐ Disagree ☐ Neither Agree nor Disagree ☐ Agree ☐ Strongly Agree |
| Transportation (public, personal, or other service) for medical appointments and other services is available to area residents when needed. | Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree |

| | n they need it? (Select all that apply) |
|---|--|
| | Availability of health and wellness programs/education |
| | Availability of healthy food options |
| | Availability of providers/appointments |
| ╝ | Basic needs not met (food/water/shelter/employment/environmental safety) |
| | Emotional/physical stress |
| | Inability to navigate health care system |
| | Inability to pay out-of-pocket expenses (co-pays, prescriptions, etc.) |
| | Lack of health insurance coverage |
| | Lack of health literacy |
| | Lack of preventive health care (screenings, annual check-ups, etc.) |
| | Lack of safe parks/recreation outlets |
|] | Lack of social support (family, friends, social network) |
| | Lack of transportation |
| | Lack of trust |
| | Language/cultural/racial/spiritual barriers |
| | Time limitations (long wait times, limited office hours, time off work) |
| | None/no barriers |
| | Other (specify): |
| | Availability of healthy food options Availability of providers/appointments Basic needs not met (food/water/shelter/employment/environmental safety) Emotional/physical stress |
| ╡ | Inability to navigate health care system |
| ╡ | Inability to pay out-of-pocket expenses (co-pays, prescriptions, etc.) |
| ۲ | Lack of health insurance coverage |
| ╡ | Lack of health literacy |
| Ħ | Lack of preventive health care (screenings, annual check-ups, etc.) |
| f | Lack of safe parks/recreation outlets |
| Ħ | Lack of social support (family, friends, social network) |
| i | Lack of transportation |
| Ħ | Lack of trust |
| Ħ | Language/cultural/racial/spiritual barriers |
| ī | Time limitations (long wait times, limited office hours, time off work) |
| ī | None/no barriers |
| ī | Other (specify): |
| | 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - |
| | se share any additional information regarding barriers to health care in the box below: |
| 0 | se share any additional information regarding partiers to health care in the pox below: |

| | ere specific population realth services? | s in this community that | you think are not being adequately served by |
|--------|---|--|--|
| | Yes | | |
| | No | | |
| IF YES | : Which populations a | e underserved? (Selec | all that opply) |
| | | an | Immigrant/refugee LGBTQ+ community Low income/poor Men Women Seniors/elderly Uninsured/underinsured Other (specify): underinsured individuals living in the area go |
| | | Doctor's office Health clinic/FQHC Hospital emergency of Walk-in/urgent care Don't know Other (specify): | |

SOCIAL DETERMINANTS OF HEALTH

Social Determinants of Health, defined by Healthy People 2020, are conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, function, and quality-of-life outcomes and risks.

13. On Please rate the quality of the following 5 key areas of Social Determinants of Health within the community using a scale of very poor through excellent. An N/A option is provided if you have no experience with the area or have no opinion.

Very Poor ←→ Excellent

| Economic stability poverty, employment, food security, housing stability | ☐ Very Poor ☐ Poor ☐ Average ☐ Good ☐ Excellent ☐ N/A |
|---|---|
| Education early childhood education and development, enrollment in higher education, high school graduation, language and literacy | ☐ Yery Poor ☐ Poor ☐ Average ☐ Good ☐ Excellent ☐ N/A |
| Social and community context social cohesion, civic participation, perceptions of discrimination and equity, incarceration/institutionalization | ☐ Very Poor ☐ Poor ☐ Average ☐ Good ☐ Excellent ☐ N/A |
| Neighborhood and built environment access to foods that support healthy eating patterns, quality of housing, crime and violence, environmental conditions, transportation | ☐ Very Poor ☐ Poor ☐ Average ☐ Good ☐ Excellent ☐ N/A |
| Health and health care access to health care, access to primary care, health literacy | ☐ Very Poor ☐ Poor ☐ Average ☐ Good ☐ Excellent ☐ N/A |

MISSING RESOURCES/SERVICES

14. For each Healthcare Resource/Service listed, please select whether you think it is missing (not available), lacking (available but not enough to meet needs) or not affordable (price may be a barrier in accessing service) within the community. If you think the service is available and affordable, please select the need being met.

| Healthcare Resources/Services | Missing | Lacking | Not Affordable | Need Being Met | Don't Know |
|---|---------|---------|-------------------|----------------------|---------------|
| Advocacy for social needs (food security, housing, education, employment, etc.) | | | | | |
| Bilingual services | | | | | = |
| Case management/social services | | | | | 1 |
| Corporate health screenings/education programs (on-site for employees) | | | | | |
| Emergency care | | - | | | |
| Federally qualified health centers (FQHCs) | | | | | |
| Food distribution | | | | | |
| Free/low cost dental care | | | | | |
| Free/low cost medical care | | | | | |
| Health education/information/outreach | | | | 1 | |
| Healthy food options | | | | | |
| Home health care services | | | | | |
| Housing assistance | | | | | |
| Prescription assistance | | | | | |
| Mental health services | | | | | |
| Multicultural/bilingual healthcare providers | | | | | |
| Preventive health screenings (blood pressure, diabetes, stroke, etc.) | | | | | |
| Primary care services | | | | | |
| Specialty care services (cardiologist, neurologists, etc.) | | | | | |
| Substance abuse services | | | | | |
| Support group services | | | | | |
| Sexual health care | | | | | |
| Transportation | | | | | |

| 15. | Please share any additional information regarding the need and accessibility of healthcare resources |
|-----|--|
| | and/or services for individuals living in the community in the box below: |
| | |
| | |

DPEN-ENDED: CHALLENGES & SOLUTIONS

- 16. What challenges do people in the community face in trying to maintain healthy lifestyles like exercising and eating healthy and/or trying to manage chronic conditions, such as diabetes or heart disease?
- 17. In your opinion, what is being done well in the community in terms of health and quality of life? (Community Assets/Strengths/Successes)
- 18. What recommendations or suggestions do you have to improve health and quality of life in the community?

| Please answer the fo | llowing demographic questions. |
|---|---|
| 19. Which one of the | se categories would you say <u>BEST</u> represents your community affiliation? (CHOOSE I |
| 20. Are there any spe | Business sector Childcare/youth services Community member Education Faith-based/cultural organization Government/housing/transportation sector Health care/public health organization Mental/behavioral health organization Non-profit/social services Other (specify): |
| apply) American Asian/Pac Black/Afri Children/ Disabled Families Hisponic/ | Indian/Alaska Native Immigrant/refugee cific Islander LGBTQ+ community ican American Low income/poor youth Men Women Seniors/elderly |

| | - | - 1 | - |
|---|----------|-----|-----|
| ~ | AC I | ж. | - |
| | ON I | m. | C-3 |

| Regional One Health and its partners will use the information gathered through this surv community health improvement activities. Please share any other feedback you may hav | |
|--|-------------------|
| commonly neutrin improvement derivines. Thease share any other feedback you may have | e for ment below. |
| | |
| | |

Thank you! That concludes the survey.

APPENDIX B: KEY INFORMANT PARTICIPANTS

| Name | Agency | |
|--|--|--|
| James Armfield | New Memphis | |
| Jenny Bartlett-Prescott | Church Health Center | |
| Katherine Bell-Anthony | UnitedHealth Group | |
| Cynthia Bradford | Baptist Memorial Health Care Corporation | |
| Amy Campbell | University of Memphis School of Law | |
| Nancy Coffee | New Memphis | |
| Gary Cook | Methodist/LeBonheur | |
| Sadie Cushman | Shelby County Schools | |
| Dr. Emilee Dobish | UT Health Sciences Center | |
| Dr. Kathleen Forbes | Methodist/LeBonheur | |
| Kiki Hall | Common Table Health Alliance | |
| Dr. Alisa Haushalter | Shelby County Health Department | |
| David Jordan | AGAPE Child & Family Services | |
| Kathryn Leopard | CHOICES | |
| Marian Levy University of Memphis School of | | |
| Dr. Jon McCullers UT Health Sciences Center | | |
| Mayor Keith McDonald City of Bartlett Government | | |
| Susan M. Mills | Goodwill Homes Community Services | |
| Rebecca Terrell | CHOICES | |
| Cristie Travis | Memphis Business Group on Health | |
| Jill Turner | New Memphis | |
| lennilyn Utkov Methodist/LeBonheur | | |
| avid Williams Leadership Memphis | | |
| Dr. Jason Yaun | Memphis and Mid-South Pediatric Society | |
| Dr. Jan Young | Assisi Foundation | |
| Dr. Lin Zhan | University of Memphis College of Nursing | |



2019 COMMUNITY HEALTH NEEDS ASSESSMENT CONGREGATIONAL HEALTH SURVEY

Methodist Le Bonheur Healthcare

Prepared by:

Program Evaluation Team Methodist Le Bonheur Community Outreach 600 Jefferson Ave Memphis, TN 38105

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Abstract

The Mid-South Congregational Health Survey (MSCHS) is a church needs assessment conducted in collaboration with Methodist Le Bonheur Healthcare's Congregational Health Network (CHN) and other academic and community health institutions within Memphis, TN. The primary focus of the MSCHS is to identify congregations' health needs. During February 2019 to July 2019, 76 faith-based congregations within Shelby and DeSoto Counties provided a total of 622 participants to complete the survey. A remarkable finding within secondary data analysis of this survey displays that participants ranked the topic of mental health among one of the most significant health needs/issues, especially the topic of *Anxiety or Depression*. This assessment not only presents the opportunity of how health care organizations can partner with church leaders in order to address congregations' health needs, but also produces insight of the various Social Determinants of Health associated with particular community health needs/issues.

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Executive Summary

The Mid-South Congregational Health Survey (MSCHS) is a church needs assessment conducted February 2019 – January 2020 in partnership with Methodist Le Bonheur Healthcare's Congregational Health Network (CHN), University of Memphis (UofM) School of Public Health, University of Tennessee Health Science Center (UTHSC), and Church Health Center's Congregational Health Promoters (CHP) Program. The primary purpose of the MSCHS is three-fold in purpose as partners within the collaboration: 1) identify congregations' health needs; 2) learn of needed services and resources to develop and/or grow a church's health ministry efforts; and 3) to aid congregations to create an action plan to improve the health of congregants and/or community members.

The MSCHS is a 19-question survey approved for administration by UTHSC's Institutional Review Board (IRB). The survey affords participants the opportunity to select health needs/issues of interest and to rank what they perceive are the five most significant health needs/issues that participants would like for their church/congregation to address with future programming. Participants also indicate barriers of addressing certain health needs (e.g., lack of funds, limited time, etc.), and the resources (e.g., health fairs, screenings, community partnerships, etc.) currently utilized by churches.

Participants were able to indicate which health needs or issues of interest they would like for their church/congregation to develop programs to address. The health needs/issues of interest receiving the most selection were High Blood Pressure/Stroke (63.2%), Anxiety or Depression (63.0%), Stress (61.1%), Affordable Healthcare/Healthcare Information (58.5%), and Program for Youth (57.6%). Regarding the ranking among the health issue/topics, the top five health needs were Anxiety or Depression, Diabetes/High Sugar Levels, Stress, Overweight/Obesity, and High Blood Pressure/Stoke, respectively. A remarkable finding within this assessment is the amount which survey participants ranked the topic of mental health among the congregation's significant health need/issue, especially that of Anxiety or Depression, which was ranked the top health concern for the overall ranking and for five out of the six age categories.

This assessment presents the occasion for faith-based leaders to seek collaboration with health care providers and agencies in order to identify, obtain, and utilize resources that address health needs. With assistance with appropriate facilitation of future health programming, congregants and community members can increase health literacy and access to care to health and social services, which results in greater health outcomes within the community and erases former barriers to health needs/issues.

Overview/Study Objective

The Mid-South Congregational Health Survey (MSCHS) is a church needs assessment conducted February 2019 – January 2020 in partnership with MLH's Congregational Health Network (CHN), University of Memphis (UofM) School of Public Health, University of Tennessee Health Science Center (UTHSC), and Church Health Center's Congregational Health Promoters (CHP) Program. The primary purpose of the MSCHS is three-fold in purpose as partners within the collaboration: 1) identify congregations' health needs; 2) learn of needed services and resources to develop and/or grow a church's health ministry efforts; and 3) to aid congregations to create an action plan to improve the health of congregants and/or community members.

Methodology

To administer the MSCHS, partners within this collaboration utilized CHN's Navigators and CHP's Promoters to contact congregations to determine a church's willingness to participate in the assessment. After a congregation displays interest, church leaders select at least one percent of congregants to take the survey via paper or electronic link. CHN's Program Evaluator collects and enters surveys within a database system in order to produce a results report for the congregation. The CHN Navigator or CHP Promoter presents the results report to congregations to display what the church perceives to be its top needs, resources and barriers to health. After a congregation learns of its perceived health needs, church leaders can decide whether to create a Congregational Action Plan of S.M.A.R.T. (Specific, Measureable, Actionable, Relative, and Timespecific) goals and combat the identified health issues. If a Congregational Action Plan is created CHN Navigators/CHP Promoters meet quarterly with congregations to aid members in the action plan process and accomplishment of health goals.

Survey Instrument

The instrument used can be found in Appendix A. The MSCHS is a 19-question survey approved for administration by UTHSC's Institutional Review Board (IRB). The survey is divided into three portions: 1) participant and congregational information, 2) information about congregational and community health and 3) information about health needs and resources within the church/community. A breakdown of the type of questions is overviewed in Table 1.

TABLE 1. MSCHS SURVEY INSTRUMENT BREAKDOWN

| Topic | Number of Questions related to Topic | Purpose of Questions |
|---|--|---|
| Participant & Congregational Information | 17 questions | Demographic information, including participants' age, gender, race/ethnicity, marital status, educational level, health insurance status, role at the church, length of membership at the church, main reasons for attending church, and social support. |
| | | Congregational questions to learn of congregation's denomination, ZIP Code, membership size, health activity within the church, and experience with grants. |
| Information about Congregational and Community Health | One table with 36 items for selection | With this table participants are able to select all the health "needs or issues they would like for their church/congregation to develop programs to address;" the table is divided up into three categories of health need topics: Mind, Body and Soul; Availability of Resources; Neighborhood Issues. |
| Health Needs and Resources within the Church/Community | Ranking chart for top five health needs | This chart gives participants the opportunity to rank what they perceive are the five most significant health needs/issues that participants would like for their church/ congregation to address with future programming. Participants can select health need from the previous 36 item chart or write-in their own opinion of health need(s). |
| | | Participants also indicate barriers of addressing certain health needs (e.g., lack of funds, limited time, etc.), and current church resources (e.g., health fairs, screenings, community partnerships, etc.) that combat the health need. |

Sample Size

Within this secondary data analysis, 76 faith-based congregations participated within the first two quarters of MSCHS administration (February 2019 to April 2019, and May 2019 to July 2019,

respectively). Among these congregations, a total of 622 participants took the survey. A demographic breakdown of this sample size is seen in Table 2.

TABLE 2. DEMOGRAPHIC BREAKDOWN OF MSCHS PARTICIPANTS

| Characteristic | N (%) |
|---------------------------------|-------------|
| Participating Congregations | 76 |
| Survey Participants | 622 |
| Gender | |
| Female | 425 (69.7%) |
| Male | 177 (29.0%) |
| No Response | 8 (1.3%) |
| Race/Ethnicity | |
| African American | 533 (87.1%) |
| Caucasian | 58 (9.6%) |
| Hispanic | 3 (0.5%) |
| American Indian/Alaskan Native | 1 (0.2%) |
| Asian American/Pacific Islander | 0 (0.0%) |
| Multiracial | 6 (1.0%) |
| Other | 4 (0.7%) |
| Prefer not to respond | 6 (1.0%) |
| Age (Average) | 54.9 |
| 18 – 24 | 26 (4.2%) |
| 25 – 34 | 51 (8.2%) |
| 35 – 44 | 81 (13.0%) |
| 45 – 54 | 104 (16.7%) |
| 55 – 64 | 145 (23.3%) |
| 65+ | 183 (29.4%) |
| No Response | 32 (5.1%) |
| Education | |
| Less than High School | 8 (1.3%) |
| High School (or have GED) | 92 (15.2%) |
| Some college credit (no degree) | 178 (29.1%) |
| Two-year degree | 74 (12.3%) |
| Four-year degree | 131 (21.6%) |
| Graduate | 121 (19.7%) |
| Prefer not to respond | 5 (0.8%) |

| Health Insurance Status | |
|-----------------------------------|-------------|
| Private Insurance | 424 (71.0%) |
| Government Insurance | 194 (32.6%) |
| Uninsured | 20 (3.3%) |
| Prefer not to respond | 14 (2.4%) |
| Congregational Denomination | |
| Baptist | 263 (43.0%) |
| Church of God in Christ (COGIC) | 82 (13.6%) |
| Non-Denominational | 160 (25.8%) |
| United Methodist Church (UMC) | 33 (5.4%) |
| Christian Church | 21 (3.5%) |
| African Methodist Episcopal (AME) | 24 (3.9%) |
| Presbyterian | 10 (1.7%) |
| Other | 19 (3.2%) |
| Congregational ZIP Code | |
| 38126 | 55 (8.9%) |
| 38108 | 41 (6.8%) |
| 38109 | 46 (7.7%) |
| 38116 | 78 (12.8%) |
| 38138 | 13 (2.1%) |
| Don't know | 23 (3.8%) |
| Other ZIP Code | 349 (57.8%) |

Summary of Findings

Participants were able to indicate which health needs or issues of interest they would like for their church/congregation to develop programs to address (see Appendix A, page 5 of MSCHS Survey). Table 3 demonstrates the top needs/issues of interest selected by participants regarding the three categories of health need topics: *Mind, Body and Soul; Availability of Resources;* and *Neighborhood Issues*. The percentage of participants who selected specific needs/issues within the divisions is also displayed. The possible maximum number of times that a particular health need/issue of interest could obtain was a total of 622 selections.

TABLE 3. TOP NEEDS/ISSUES REGARDING HEALTH NEED TOPICS

| Health Need Topic | | Needs/Issues of Interest | Times selected N (%) |
|---------------------------|----|----------------------------------|-------------------------|
| Mind, Body and Soul | 1. | High Blood Pressure/Stroke | 393 (63.2%) |
| | 2. | Anxiety or Depression | 392 (63.0%) |
| | 3. | Stress | 380 (61.1%) |
| | 4. | Overweight/Obesity | 345 (55.5%) |
| | 5. | Heart Disease | 342 (55.0%) |
| Availability of Resources | 1. | Affordable Healthcare/Healthcare | 364 (58.5%) |
| | | Info | 358 (57.6%) |
| | 2. | Programs for Youth | 345 (55.5%) |
| | 3. | Healthy Foods | 337 (54.2%) |
| | 4. | Employment/Jobs | 334 (53.7%) |
| | 5. | Health Services | |
| Neighborhood Issues | 1. | Crime/Assault/Homicide | 346 (55.6%) |
| | 2. | Domestic Violence | 339 (54.5%) |
| | 3. | Safe & Affordable Housing | 320 (51.5%) |
| | 4. | Homelessness | 315 (50.6%) |
| | 5. | Incarceration/Re-entry into | 263 (42.3%) |
| | | Community | |

After survey participants were able to select the health needs/issues of interest, they were also provided the opportunity to list and rank the top five health needs that they would like for their church/congregation to address with future programming, (see Appendix A., pages 6 and 7 of survey). Table 4 displays the top ten overall health needs ranked by survey participants. When calculating the weighted score of each health need, a specific value was assigned to each listed health need according to rank. For example, if a health need is ranked at "Need #1" the need receives five points, if ranked "Need #2" the need receives four points, and so on with "Need #5" receiving one point. After the points are assigned the sum of the points is calculated to determine the health need's weighted score. This weighted system ensures that health needs listed by participants receive the appropriate attention and prioritization. As a result to the weighted system, there exists higher ranked health needs/issues which obtained a lesser percentage of votes than subsequent ranked needs.

TABLE 4. OVERALL RANKED TOP HEALTH NEEDS/ISSUES, N=622

| Top Healt | h Needs/Issues | Weighted Score (% of votes) |
|-------------------------|----------------|-----------------------------|
| 1. Anxiety or Depressi | on | 590 (22.0%) |
| 2. Diabetes/High Suga | ır Levels | 312 (13.8%) |
| 3. Stress | | 303 (15.4%) |
| 4. Overweight/Obesit | У | 286 (13.0%) |
| 5. High Blood Pressure | e/Stroke | 271 (13.0%) |
| 6. Programs for Youth | | 220 (13.2%) |
| 7. Cancer | | 249 (10.5%) |
| 8. Heart Disease | | 215 (10.3%) |
| 9. Nutrition/Physical A | Activity | 210 (10.9%) |
| 10. Suicide | | 156 (7.9%) |

Table 5 displays the top health needs/issues in regards to age-adjusted group in order to display the difference in prioritization in health needs among individuals of certain age groups.

TABLE 5. AGE ADJUSTED RANKED TOP HEALTH NEEDS/ISSUES

| Age Group | | Top Health Needs/Issues | Weighted Score (% of votes) |
|-----------|----|----------------------------------|-----------------------------|
| 18 – 24 | 1. | Anxiety or Depression | 26 (23.1%) |
| (n=26) | 2. | Suicide | 22 (23.1%) |
| | 3. | Stress | 17 (15.4%) |
| | 4. | Programs for Youth | 15 (19.2%) |
| | 5. | Domestic Violence/Teen Pregnancy | 11 (11.5%, 11.5%) |
| 25 – 34 | 1. | Anxiety or Depression | 99 (43.1%) |
| (n=51) | 2. | Stress | 54 (33.3%) |
| | 3. | Trauma | 33 (19.6%) |
| | 4. | Programs for Youth | 28 (17.6%) |
| | 5. | Overweight/Obesity | 25 (13.7%) |
| 35 – 44 | 1. | Anxiety or Depression | 135 (39.5%) |
| (n=81) | 2. | Overweight/Obesity | 73 (24.7%) |
| | 3. | Diabetes/High Sugar Levels | 51 (14.8%) |
| | 4. | Nutrition/Physical Activity | 50 (23.5%) |
| | 5. | Stress | 50 (19.8%) |
| 45 – 54 | 1. | Anxiety or Depression | 153 (33.7%) |
| (n=104) | 2. | Diabetes/High Sugar Levels | 72 (18.3%) |
| | 3. | Stress | 62 (18.3%) |
| | 4. | High Blood Pressure/Stroke | 52 (14.4%) |
| | 5. | Cancer | 48 (12.5%) |
| 55 – 64 | 1. | Anxiety or Depression | 118 (18.6%) |
| (n=145) | 2. | Overweight/Obesity | 82 (15.9%) |
| | 3. | Diabetes/High Sugar Levels | 81 (15.2%) |
| | 4. | Programs for Youth | 75 (19.3%) |
| | 5. | High Blood Pressure/Stroke | 70 (14.5%) |
| 65+ | 1. | High Blood Pressure/Stroke | 113 (18.6%) |
| (n=183) | 2. | Diabetes/High Sugar Levels | 87 (13.1%) |
| | 3. | Heart Disease | 74 (10.4%) |
| | 4. | Cancer | 70 (9.3%) |
| | 5. | Anxiety or Depression | 57 (7.7%) |

Limitations

The purpose of this survey was to capture the perceived health needs within the faith-based community within the social network setting of congregations. Although the sample size reflects the racial demographic of Shelby County, when observing the education attainment and persons without health insurance, the same size of survey participants is not scaled to the same proportion of the same populations within Shelby County. In order to analyze if there is correlation between geographic location and health need/issue survey structure would have to be altered to reflect both the survey participant's residential and congregational ZIP codes, since congregants usually do not live where they attend church. Also, regarding the survey structure, during the data entry process there was observation that some participants had difficulty fully ranking the top five health needs of the congregations. Either new formation or better explanation of tasks is needed to enable survey participants with concise direction of how rank to congregational health needs.

Discussion

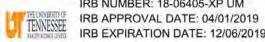
A remarkable finding within this assessment is the amount which survey participants ranked the topic of mental health among the congregation's significant health need/issue, especially that of *Anxiety or Depression*. The topic of *Anxiety or Depression* was the top health concern for the overall ranking and for five out of the six age categories (reference Tables 4 and 5). This emphasis on mental health topics (e.g. Anxiety or Depression, Stress, Trauma, Suicide, etc.) should enlighten faith-based leaders to seek collaboration with health care providers and agencies in order to obtain and utilize resources and services that appropriately facilitate programming to congregants and community members and increase health literacy and access to care to mental health services. Increased awareness and better utilization of mental health resources can result in positive mental health status within the community, for residents of all ages and socioeconomic backgrounds, erasing former barriers to this particular health topic.

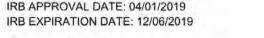
Another finding within the analysis of this assessment is how survey participants compared in the ranking of health needs. Among the age groups of 35 years or older, participants were more likely to rank a chronic disease, (e.g., Diabetes/High Sugar Levels, High Blood Pressure, Heart Disease, etc.), as a top health need, demonstrating a high interest that their congregations address and create programming regarding chronic disease management. On the other hand, the age groups of 18-34 years old highlighted the need for congregations to address and create programming concerning mental health. Nevertheless, a health need that was highlighted and

received attention across age groups was the desire to create *Programs for Youth*, a health topic which concerns a comprehensive approach to programming in order to ensure the physical, social, mental, spiritual and emotional health of youth. This spotlight to aid youth within the community implies that the faith-based community sees a great need to address barriers and enhance youth's access to resources that result in positive health outcomes.

This assessment presents the opportunity for health care organizations to address congregations' health needs and to produce a method which personalizes a delivery and response to assist congregants of how to resolve health needs/issues. Although there may be many Social Determinants of Health which deter groups of individuals in accessing and utilizing resources that can afford them better health, a duty of health care providers and organizations is to observe the external factors that affect community members and to thus work alongside them to construct better health delivery methods that improve health outcomes. One capacity-building product of the MSCHS is the Congregational Action Plan, a tool which performs this exact action—opportunity for community members and health care staff for the purpose to formulate sustainable programming directed to combat congregational health needs. The MSCHS provides a challenge and model for health care providers and agencies to go above and beyond the state of identification of the health issues that plague patients and community members, and to take proactive steps towards the progress of good health among people.

Appendix A: Congregational Health Survey







Mid-South Congregational Health Survey

You are invited to participate in a congregational health survey being conducted with congregations in and around Memphis, TN. The survey is part of a research study to identify the health needs you feel are important to address within your congregation. We hope to learn more about how to assist churches in the Mid-South and how to address health needs within their congregations and communities.

We ask you to join this study because you are a faith leader, lay person, or a church member at least 18 years old; read, write, and comprehend English; and who attends a congregation in the Memphis area. Between 5 and 30 people from each church can participate, depending on your regular church attendance numbers. You do not have to participate; it is your choice.

The survey will take about 20 - 30 minutes to complete and includes questions about:

- You (e.g., age, race, marital status) and your church (e.g., denomination, attendance),
- The health needs in your congregation and community
- Programs or services available in your church that can be used to address these health needs.

Please do not put your name or the name of your church on any of the survey materials. Your survey responses will be confidential to the extent possible by law. In all records of the study, a code number will identify surveys from each church, but not individuals within the church. Your name or the name of your church will not be used in any reports or publications of this study. This includes reports to church, district, denominational, Methodist Le Bonheur Healthcare, or Church Health leadership. Church leadership will be provided with reports on responses from their church; however, responses will be summarized so that no individual responses or identifiers are included. All surveys will be maintained in a locked cabinet, computer records associated with the study will be secured and password protected, and all study materials will be accessible only to study staff.

There is a rare but potential risk of loss of confidentiality due to your participation in this study. In addition, you may become tired, uncomfortable, or emotional from answering survey questions. Your participation in this study will benefit other people in the future. However, your participation is voluntary, and if you choose to not participate or to stop participating at any time, your decision will not result in a penalty or affect your rights, or your future relations with your church, Methodist Le Bonheur Healthcare, Church Health, University of Memphis, or University of Tennessee Health Science Center. Should you decide to withdraw, simply let study staff know of your decision.

Please let the study staff know if you need assistance in completing the survey. Your responses to all the survey questions are very important, so please answer every question. If you prefer not to answer a question, please select or write in "Prefer not to respond."

If you have any questions about your rights as a research participant, or if you have questions, concerns, or complaints about the research, you may contact the primary investigator of this study, Dr. Brook Harmon, Ph.D., RD, University of Memphis, School of Public Health, Assistant Professor, at 901-678-1687 or bharmon (@memphis.edu.



IRB NUMBER: 18-06405-XP UM IRB APPROVAL DATE: 04/01/2019 IRB EXPIRATION DATE: 12/06/2019



You may contact Cameron Barclay, MSA, UTHSC IRB Director, at 901-448-4824, or visit the IRB website at http://www.uthsc.edu/research/compliance/irb/ if you have any questions about your rights as a research subject, or if you have questions, concerns, or complaints about the research.

If you are interested, please click on the link for the survey and additional information: LINK GOES HERE

OR [for paper surveys]

If you are interested, please send the survey back to the address provided to you or via study staff.

Thank you for your time participating in this Congregational Health Survey!



2019 COMMUNITY HEALTH NEEDS ASSESSMENT COMMUNITY SURVEY REPORT Methodist Le Bonheur Healthcare

Prepared by:

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Abstract

In April 2019, Methodist Le Bonheur Healthcare surveyed Shelby County community members regarding community health topics via a Community Health Survey. In total, 913 responses were received and evaluated by program evaluation staff at Methodist Le Bonheur Community Outreach. Overall, survey respondents identified Access to Care as a top health need in their communities. When asked further about barriers that existed to accessing health care in Shelby County, cost/out of pocket expenses and lack of health insurance were among the most selected answers. Lack of transportation followed closely behind. These results held true to results found across the other Community Health Needs Assessment (CHNA) methods as well. This CHNA highlights an opportunity for healthcare organizations in Shelby County to better serve their patients by making health care more accessible to community members who are under or uninsured, and who lack the resources necessary to fully engage with the healthcare system.

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Executive Summary

As part of the 2019 Community Health Needs Assessment (CHNA), Methodist Le Bonheur Healthcare distributed a Community Health Survey comprised of 48 questions related to community health topics. Survey questions fell into 6 different categories: Illness Prevention and Wellness, Barriers to Accessing Care, Nutrition, Social and Behavioral Factors, Survey Respondent Demographics, and Suggestions/Comments. The survey was open to all Shelby County residents and was dispersed throughout Methodist Le Bonheur Healthcare and the community through social media, email campaigns, and hospital tabling events. Surveys were also shared and distributed by collaboration partners including St. Jude Children's Research Hospital, Baptist Memorial Healthcare, Regional One Health, and the Shelby County Health Department. Program Evaluators at Methodist Le Bonheur Community Outreach facilitated all survey data evaluation, and all survey data was made available to collaboration partners.

In total, 913 survey responses were received via online or paper survey copies. The majority of survey respondents were 25-64 years old and primarily married, female, and White. 80% were employed full-time and listed employer-sponsored healthcare as their main form of health insurance. Within Shelby County, most survey participants listed their home zip code as Midtown (38104), Collierville (38017), and Cordova (38016).

Access to care and/or uninsured was a top health issue across all community survey participants, even when controlled for race, age, and income level. Obesity, high blood pressure, and diabetes were also ranked highly by White and African American survey respondents, and survey respondents over 55 years old. Cost of healthcare/paying out of pocket expenses was listed as the top barrier to access, closely followed by lack of health insurance coverage and lack of transportation. This remained consistent across all races. These results were similar to results found across other CHNA methodologies, including focus groups and stakeholder surveys.

The most prominent limitation of the Community Health Survey was the sample population represented by survey respondents. Participants were disproportionately white, female, and reported a higher educational level and higher income than the average Shelby County community member. The survey arrangement was also confusing for some survey participants, particularly those who took it via paper copy. The amount of questions (48) caused some participants to fail to complete the survey, or to skip over questions that required more than one answer.

Study Objective/Purpose

The Community Health Needs Assessment (CHNA) survey was created to ensure that the agency assesses the health need of a community, per the IRS. The survey was created in collaboration with all partners, and the final format of the survey asked participants 48 questions about several health topics related to community health. The CHNA survey was translated from English into Spanish and Arabic.

Methodology

The Community Health Needs Assessment survey was available online for all partners and the community from April 10th to May 31st, 2019. The survey was translated to Spanish and Arabic to accommodate the larger proportions of non-English speaking clients of the CHNA partnership. Paper copies and links to those electronic surveys were also available. Additionally, Methodist Le Bonheur Healthcare (MLH) embarked on a specific hospital campaign in an attempt to recruit additional respondents. Surveys were distributed at Methodist University, Methodist South, and Methodist North from May 20th through the 31st, and at Le Bonheur Children's Hospital from May 7th to the 24th. Overall, the survey received 913 responses. Not all survey respondents answered all questions, and thus some data may be missing.

Survey Instrument

Questions were created to gather information on specific health topics. See Table 1 for a breakdown on the health topics and their purpose.

TABLE 1. DESCRIPTION OF SURVEY CONTENTS BY TOPIC

| Health Topic | Number of questions related to Health Topic | Purpose of questions regarding Health Topic |
|---|---|---|
| Illness Prevention and Wellness | 11 questions | Participants provide perception of their overall health and their involvement level in certain health behaviors (e.g., physical activity, flu immunization). |
| Address Financial and Other Barriers to Accessing Care | 13 questions | Participants discuss where and to whom they go to for routine health care; health insurance status; past health screenings; barriers that kept them from accessing health care; perceived top five health issues facing the community; perceived resources and medical services within the community. |
| Nutritional Health | 7 questions | Participants describe their access to and consumption of fruit/vegetables. |
| Social Behavioral and Environmental Factors | 7 questions | Participants provide their level of engagement in certain health behaviors (e.g., tobacco/alcohol use, fast food consumption, etc.), describe physical environment, denote diagnosis of certain health conditions (e.g., high blood pressure, cancer, diabetes). |
| Demographics | 9 questions | Obtain demographic info on participants |
| Suggestions/Comments | One question | Participants comment and list suggestions to improve health within the community |

See Appendix A for the complete instrument used.

Summary of Findings

Due to the large number of questions (48) asked in the community survey, only select questions are displayed for this report. Questions were chosen based on overall themes that emerged during the CHNA process, and may have been rearranged from the original order they were presented in the community survey.

Demographics

Most respondents were young to middle aged adults. According to the U.S. Census Bureau data for Shelby County, 13.6% of the population is 65 or older¹. Respondents to the CHNA were disproportionately female (87.2%). The Shelby County census data reported that 52.5% of the Shelby County population was female¹. Just over half (55.6%) of CHNA respondents were married.

TABLE 2. AGE CATEGORIES

| Age | Total | Percent |
|---------|-------|---------|
| 18 - 24 | 30 | 4.2% |
| 25 - 34 | 158 | 22.2% |
| 35 - 44 | 165 | 23.2% |
| 45 - 54 | 150 | 21.1% |
| 55 - 64 | 152 | 21.3% |
| 65 + | 57 | 8.0% |
| TOTALS: | 712 | 100% |

TABLE 3. SEX

| Sex | Total | Percent |
|---------|-------|---------|
| Female | 620 | 87.2% |
| Male | 91 | 12.8% |
| TOTALS: | 711 | 100% |

TABLE 4. MARITAL STATUS OF SURVEY RESPONDENTS

| Marital Status | Total | Percent |
|----------------|-------|---------|
| Married | 397 | 55.6% |
| Never married | 174 | 24.4% |
| Divorced | 98 | 13.7% |
| Widowed | 30 | 4.2% |
| Separated | 15 | 2.1% |
| TOTALS: | 714 | 100% |

TABLE 5. RACE OF SURVEY RESPONDENTS

| Race | Total | Percent |
|----------------------------------|-------|---------|
| White | 370 | 51.8% |
| Black/African American | 280 | 39.2% |
| Hispanic or Latino | 32 | 4.5% |
| Asian/Pacific Islander | 14 | 2.0% |
| American Indian or Alaska Native | 9 | 1.3% |
| Other | 9 | 1.3% |
| TOTALS: | 714 | 100% |

CHNA respondents were primarily white, followed by African-American. According to Shelby County census data, 41.1% of residents are white, 54.2% are African-American, 6.5% are Hispanic/Latino, 2.8% are Asian or Pacific Islander and 0.3% are American Indian or Alaskan Native¹.

TABLE 6. EDUCATION LEVEL OF SURVEY RESPONDENTS

| Education | Total | Percent |
|---------------------------------------|-------|---------|
| Graduate or professional-level degree | 238 | 33.4% |
| College Graduate | 222 | 31.2% |
| College, but no degree | 82 | 11.5% |
| Associate's degree | 81 | 11.4% |
| High school diploma or GED | 56 | 7.9% |
| Some school, but no diploma | 17 | 2.4% |
| Other | 16 | 2.2% |
| TOTALS: | 712 | 100% |

The respondents to the CHNA skewed towards higher levels of education compared to the Shelby County population (30.6% of individuals 25 years or older held a Bachelor's degree or higher)¹.

TABLE 7. EMPLOYMENT STATUS OF SURVEY RESPONDENTS

| Employment | Total | Percent |
|-----------------------------|-------|---------|
| Employed, working full-time | 564 | 79.0% |
| Employed, working part-time | 51 | 7.1% |
| Homemaker | 29 | 4.1% |
| Retired | 28 | 3.9% |
| Disabled, not able to work | 16 | 2.2% |
| Unemployed | 16 | 2.2% |
| Student | 10 | 1.4% |
| TOTALS: | 714 | 100% |

Almost 80% of CHNA respondents were employed full time.

TABLE 8. INCOME LEVEL

| Income | Total | Percent |
|--------------------|-------|---------|
| \$50,000 or more | 437 | 62.4% |
| \$35,000-\$49,999 | 110 | 15.7% |
| \$25,000-\$34,999 | 58 | 8.3% |
| \$20,000-\$24,999 | 29 | 4.1% |
| \$15,000-\$19,999 | 10 | 1.4% |
| \$10,000-\$14,999 | 18 | 2.6% |
| Less than \$10,000 | 38 | 5.4% |
| TOTALS: | 700 | 100% |

Over 62% of CHNA reported an income of over \$50,000. The median household income for Shelby County was \$49,647 in 2017².

TABLE 9. INSURANCE PROVIDERS

| Insurance | Total | Percent |
|----------------------|-------|---------|
| Employer sponsored | 561 | 79.2% |
| Medicaid or TennCare | 33 | 4.7% |
| Medicare | 49 | 6.9% |
| Tricare | 19 | 2.7% |
| Other | 46 | 6.5% |
| TOTALS: | 708 | 100% |

Write-in answers under "Other" included being on a parent's insurance, a spouse's insurance, insurance through school, and insurance obtained via the health marketplace, among others. In regards to the Shelby County general population, 46.6% had employer coverage, 21.4% had Medicaid, 9.5% had Medicare, 10.4% had non-group, 1.6% were military or VA, and 10.4% were uninsured².

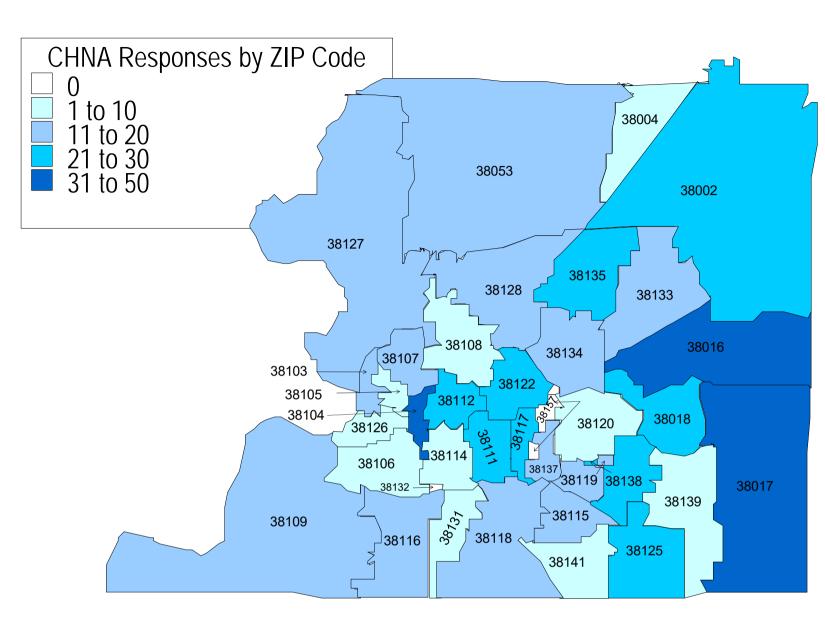


FIGURE 1. CHNA RESPONDENTS BY ZIP CODE

Of the CHNA respondents who entered a valid ZIP code, 598 (84%) reported a Shelby County ZIP code. The other ZIP codes came from surrounding areas. The highest density of CHNA responses came from midtown (38104), Collierville (38017), and Cordova (38016).

Perception of Own Health

TABLE 10. HOW WOULD YOU RATE YOUR OVERALL HEALTH?

| Overall Health | Total | Percent |
|-----------------------|-------|---------|
| Excellent | 89 | 9.8% |
| Very good | 341 | 37.6% |
| Good | 366 | 40.4% |
| Fair | 89 | 9.8% |
| Poor | 16 | 1.8% |
| Don't know / Not sure | 5 | 0.6% |
| TOTALS: | 906 | 100% |

Most (78%) respondents rated their own health as "good" or "very good." Only 1.8% of respondents rated their health as poor.

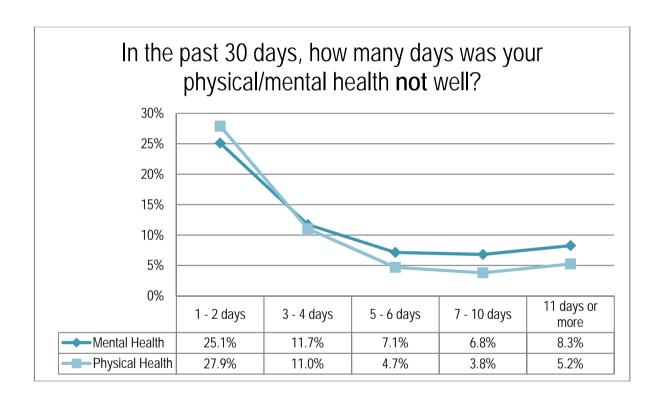


FIGURE 2. PHYSICAL AND MENTAL WELL-BEING

CHNA respondents were asked how many days their physical health was not well (illness, injury), and how many days their mental health was not well (depression, stress, anxiety). Over 8% of respondents reported having unwell mental health for 11 days or more.

TABLE 11. NUMBER OF DAYS NOT ABLE TO WORK OR DO DAILY ACTIVITIES DUE TO POOR HEALTH

| Days Not Healthy | Total | Percent |
|------------------|-------|---------|
| 1 - 2 days | 152 | 16.8% |
| 3 - 4 days | 52 | 5.7% |
| 5 - 6 days | 17 | 1.9% |
| 7 - 10 days | 16 | 1.8% |
| 11 days or more | 21 | 2.3% |
| No days | 647 | 71.5% |
| TOTALS: | 905 | 100% |

About 28% of CHNA respondents indicated that poor physical or mental health had kept them from work or daily activities for at least 1 day. Just over 2% were impeded by their physical or mental health for 11 days or more.

Access to Care

TABLE 12. RESPONDENTS WITH A PRIMARY CARE PHYSICIAN

| Primary Care Physician | Total | Percent |
|------------------------|-------|---------|
| Yes | 617 | 81.2% |
| No | 143 | 18.8% |
| TOTALS: | 760 | 100% |

TABLE 13. PRIMARY HEALTH INSURANCE PLAN OF SURVEY RESPONDENTS

| Primary Insurance | Total | Percent |
|--|-------|---------|
| Private health insurance plan (Blue Cross/Blue Shield, | | |
| Kaiser, Aetna, etc.) purchased from employer or | | |
| workplace | 475 | 62.6% |
| Employer Health Plan | 128 | 16.9% |
| Medicare | 43 | 5.7% |
| Private health insurance plan (Blue Cross/Blue Shield, | | |
| Kaiser, Aetna, etc.) purchased directly from an | | |
| insurance agency | 22 | 2.9% |
| Medicaid | 20 | 2.6% |
| No health insurance of any kind | 41 | 5.4% |
| Military, Tricare, CHAMPUS, or the VA | 15 | 2.0% |
| Other (please specify) | 13 | 1.7% |
| Don't know/Not sure | 2 | 0.3% |
| TOTALS: | 759 | 100% |

Just over 80% of all respondents had a primary care physician. Only 5.4% of respondents indicated they had no insurance of any kind.

TABLE 14. REASONS WHY SOME RESPONDENTS DID NOT HAVE HEALTH INSURANCE

| Reasons for Lacking Health Insurance | Total | Percent |
|--|-------|---------|
| Too expensive | 55 | 63.2% |
| I am healthy and do not need health insurance today | 15 | 17.2% |
| It does not include all of health care needs that I have | | |
| now, or might have in the future | 7 | 8.0% |
| I have a pre-existing condition that is not covered | 4 | 4.6% |
| Other | 5 | 5.7% |
| It does not include all of the health care needs that I | | |
| have now, or might have in the future | 1 | 1.1% |
| TOTALS: | 87 | 100% |

Of the respondents which did not have health insurance, cost was selected as the most common barrier (63.2%).

TABLE 15. PRIMARY FORM OF TRANSPORTATION TO HEALTH APPOINTMENTS

| Transportation Used | Total | Percent |
|--------------------------------|-------|---------|
| Drive | 718 | 94.6% |
| Call a friend or family member | 23 | 3.0% |
| Medical Transport company | 7 | 0.9% |
| Walk | 4 | 0.5% |
| Ride the bus/MATA plus | 3 | 0.4% |
| Rideshare (e.g. Uber, Lyft) | 2 | 0.3% |
| Other (please specify) | 2 | 0.3% |
| TOTALS: | 759 | 100% |

Almost all (94.6%) CHNA respondents drove to their appointments.

Barriers to Care

Of the respondents who indicated they had delayed receiving health care, being unable to afford out-of-pocket costs was the most frequently selected.

TABLE 16. REASONS FOR DELAY IN GETTING MEDICAL CARE WHEN NEEDED

| Reasons for Delaying Medical Care | Total | Percent |
|--|-------|---------|
| You couldn't afford the out-of-pocket costs | 102 | 37.8% |
| You couldn't get an appointment soon enough | 45 | 16.7% |
| Not sure who to contact | 33 | 12.2% |
| Other | 21 | 7.8% |
| Once you got there, you had to wait too long to see the doctor | 16 | 5.9% |
| You were unable to take off work | 15 | 5.6% |
| The provider would not take your insurance | 13 | 4.8% |
| The clinic/doctor's office wasn't open when you went there | 10 | 3.7% |
| You didn't have transportation | 6 | 2.2% |
| You didn't have the time | 5 | 1.9% |
| You couldn't get through on the telephone | 2 | 0.7% |
| You did not have childcare | 2 | 0.7% |
| TOTALS: | 270 | 100% |

TABLE 17. BARRIERS TO ACCESSING HEALTH CARE WHEN NEEDED (ALL)

| Barriers to Access | Total | Percent |
|---|-------|---------|
| Cost/Paying Out of Pocket Expenses (Co-pays, Prescriptions, etc.) | 607 | 18.8% |
| Lack of Health Insurance Coverage | 474 | 14.7% |
| Lack of Transportation | 430 | 13.3% |
| Basic Needs Not Met (Food/Shelter) | 347 | 10.8% |
| Difficult to Understand/Navigate Health Care System | 302 | 9.4% |
| Lack of Trust | 232 | 7.2% |
| Can't Find Doctor/Can't Get Appointment | 208 | 6.5% |
| Language/Cultural Issues | 202 | 6.3% |
| Lack of Child Care | 171 | 5.3% |
| Not enough time | 165 | 5.1% |
| Don't Know | 43 | 1.3% |
| Other | 26 | 0.8% |
| None/No Barriers | 16 | 0.5% |
| TOTALS: | 3223 | 100% |

Other write-in reasons included not understanding or prioritizing preventative care, fear, and lack of initiative. The top 3 reasons overall were cost and/or paying out of pocket, lack of health insurance coverage, and lack of transportation. Cost and paying out of pocket remained the most selected barrier across all races. Lack of transportation was also cited as a barrier by all races.

TABLE 18. BARRIERS TO ACCESSING HEALTHCARE BY RACE (TOP 3)

| Barriers to Access | Total | Percent |
|---|-------|---------|
| White (<i>N</i> = 370) | | _ |
| Cost/Paying Out of Pocket Expenses (Co-pays, Prescriptions, etc.) | 296 | 80.0% |
| Lack of Health Insurance Coverage | 229 | 61.9% |
| Lack of Transportation | 221 | 59.7% |
| African American (N = 280) | | |
| Cost/Paying Out of Pocket Expenses (Co-pays, Prescriptions, etc.) | 228 | 81.4% |
| Lack of Health Insurance Coverage | 183 | 65.3% |
| Lack of Transportation | 164 | 59.6% |
| Hispanic/Latinx (N = 32) | | |
| Cost/Paying Out of Pocket Expenses (Co-pays, Prescriptions, etc.) | 23 | 71.9% |
| Lack of Transportation | 18 | 56.2% |
| Language/Cultural Issues | 14 | 43.7% |
| Other Races (N = 32) | | |
| Cost/Paying Out of Pocket Expenses (Co-pays, Prescriptions, etc.) | 25 | 78.1% |
| Lack of Transportation | 20 | 62.5% |
| Basic Needs Not Met (Food/Shelter) | 15 | 46.9% |
| TOTALS: | 756 | 100% |

Environment

Almost 93% of respondents replied that the grocery store nearest to their home was easy to access. Nearly 60% of respondents indicated that the stores had fresh and affordable produce. Of the respondents who used public transport, 42.8% walked.

TABLE 19. EASY TO ACCESS GROCERY STORE NEAREST TO YOUR HOME

| Grocery Store Near Home | Total | Percent |
|-------------------------|-------|---------|
| Yes | 661 | 92.8% |
| No | 51 | 7.2% |
| TOTALS: | 712 | 100% |

TABLE 20. AVAILABILITY OF AFFORDABLE AND FRESH FRUITS AND/OR VEGETABLES

| Fruits and/or Vegetables | Total | Percent |
|---|-------|---------|
| Yes, has fresh and affordable fruits and vegetables | 414 | 58.3% |
| No, does not have fresh and affordable fruits or vegetables | 202 | 28.5% |
| Yes, has fresh and affordable fruit only | 10 | 1.4% |
| Yes, has fresh and affordable vegetables only | 8 | 1.1% |
| Don't know/Not Sure | 49 | 6.9% |
| Other | 27 | 3.8% |
| TOTALS: | 710 | 100% |

TABLE 21. TYPE(S) OF PUBLIC TRANSPORTATION USED BY YOUR HOUSEHOLD

| Public Transportation | Total | Percent |
|------------------------|-------|---------|
| Walk | 122 | 42.8% |
| Bike | 46 | 16.1% |
| Bus | 40 | 14.0% |
| Other | 36 | 12.6% |
| Trolley | 17 | 6.0% |
| Commuter shuttle | 9 | 3.2% |
| Rideshare (Uber, Lyft) | 6 | 2.1% |
| I don't know | 9 | 3.2% |
| TOTALS: | 285 | 100% |

TABLE 22. VANDALIZED OR ABANDONED BUILDINGS NEAR RESIDENCE OF RESPONDENT

| | Total | Percent |
|---------|-------|---------|
| Yes | 149 | 21.7% |
| No | 538 | 34.6% |
| TOTALS: | 687 | 100% |

Just over 20% of respondents indicated that there were abandoned or vandalized buildings within a half block of their residence.

Health Issues in the Community

Access to care and/or being uninsured was the most selected health issue across all CHNA respondents, followed by overweight/obesity. Access to care and overweight/obesity remained a top health issue when looked at by race. African Americans especially prioritized high blood pressure as an issue. Additionally, access to care was strongly prioritized by the Hispanic/Latinx population, as 81.3% of the respondents selected the item. Access to care remained a frequently selected issue across age ranges. Individuals under the age of 34 were more likely to select poverty as a health issue than older individuals.

When divided by income, access to care was still a frequently selected option across all groups. Interestingly, the group with the highest income was the group most likely to select poverty as a health issue in the community, compared to those living at or below the poverty line. The resources mostly frequently identified as missing in the community were resources related to access to fresh food, followed by free or low-cost medical and dental care.

TABLE 23. TOP 5 HEALTH ISSUES OF THE COMMUNITY (ALL)

| | Total | Percent |
|--------------------------|-------|---------|
| Access to Care/Uninsured | 386 | 9.0% |
| Overweight/Obesity | 346 | 8.1% |
| Diabetes | 328 | 7.7% |
| Drug Abuse/Alcohol Abuse | 318 | 7.5% |
| High Blood Pressure | 313 | 7.3% |
| TOTALS: | 1691 | |

TABLE 24. TOP 5 HEALTH ISSUES OF THE COMMUNITY BY RACE OF RESPONDENT

| Health Issues – By Race | Total | Percent by # of respondents |
|--------------------------|------------------------------|-----------------------------|
| | White (<i>N</i> = 370) | |
| Overweight/Obesity | 190 | 51.4% |
| Access to Care/Uninsured | 185 | 50.0% |
| Drug Abuse/Alcohol Abuse | 165 | 44.6% |
| Poverty | 147 | 39.7% |
| Diabetes | 134 | 36.2% |
| | African American (N = 270) | |
| High Blood Pressure | 150 | 53.6% |
| Diabetes | 143 | 51.1% |
| Access to Care/Uninsured | 129 | 46.1% |
| Drug Abuse/Alcohol Abuse | 111 | 39.6% |
| Overweight/Obesity | 105 | 37.5% |
| | Hispanic/Latinx ($N = 32$) | |
| Access to Care/Uninsured | 26 | 81.3% |
| Diabetes | 22 | 68.8% |
| Overweight/Obesity | 20 | 62.5% |
| Dental Health | 14 | 43.8% |
| Heart Disease | 12 | 37.5% |
| | Other Races ($N = 32$) | |
| Access to Care/Uninsured | 22 | 68.8% |
| Overweight/Obesity | 14 | 43.8% |
| Diabetes | 12 | 37.5% |
| High Blood Pressure | 12 | 37.5% |
| Community Support | 10 | 31.3% |
| TOTALS: | | <u></u> |

TABLE 25. TOP 5 HEALTH ISSUES OF THE COMMUNITY BY AGE OF RESPONDENT

| Health Issues – By Age | Total | Percent by # of respondents | |
|--------------------------|------------------|-----------------------------|--|
| | Ages 18 - 34 | | |
| Access to Care/Uninsured | 95 | 50.5% | |
| Overweight/Obesity | 93 | 49.5% | |
| Poverty | 85 | 45.2% | |
| Drug Abuse/Alcohol Abuse | 84 | 44.7% | |
| Diabetes | 81 | 43.1% | |
| | Ages 35 - 54 | | |
| Access to Care/Uninsured | 162 | 51.4% | |
| Overweight/Obesity | 144 | 45.7% | |
| Diabetes | 133 | 42.2% | |
| High Blood Pressure | 126 | 40.0% | |
| Drug Abuse/Alcohol Abuse | 119 | 37.8% | |
| | Ages 55 or older | | |
| High Blood Pressure | 107 | 51.2% | |
| Access to Care/Uninsured | 104 | 49.8% | |
| Diabetes | 96 | 45.9% | |
| Drug Abuse/Alcohol Abuse | 91 | 43.5% | |
| Overweight/Obesity | 91 | 43.5% | |
| TOTALS: | | | |

TABLE 26. TOP 5 HEALTH ISSUES OF THE COMMUNITY BY INCOME OF RESPONDENT

| Health Issues – By Income | Total | Percent by # of respondents |
|---------------------------|-------------------------------------|-----------------------------|
| | Less than \$10,000 (<i>N</i> = 38) | |
| Access to Care/Uninsured | 29 | 76.3% |
| Diabetes | 17 | 44.7% |
| Drug Abuse/Alcohol Abuse | 16 | 42.1% |
| Dental Health | 14 | 36.8% |
| High Blood Pressure | 14 | 36.8% |
| | \$10,000 - \$19,999 (N = 28) | |
| Overweight/Obesity | 14 | 50.0% |
| Access to Care/Uninsured | 13 | 46.4% |
| Diabetes | 13 | 46.4% |
| High Blood Pressure | 13 | 46.4% |
| Cancer | 11 | 39.3% |
| | \$20,000 - \$34,999 (N = 87) | |
| Drug Abuse/Alcohol Abuse | 40 | 46.0% |
| Access to Care/Uninsured | 39 | 44.8% |
| Diabetes | 39 | 44.8% |
| High Blood Pressure | 35 | 40.2% |
| Overweight/Obesity | 35 | 40.2% |
| | \$35,000 or above (<i>N</i> = 547) | |
| Access to Care/Uninsured | 275 | 50.3% |
| Overweight/Obesity | 262 | 47.9% |
| Diabetes | 236 | 43.1% |
| Drug Abuse/Alcohol Abuse | 224 | 41.0% |
| Poverty | 224 | 41.0% |
| TOTALS: | | |

TABLE 27. HEALTH-RELATED RESOURCES OR SERVICES THAT ARE MISSING IN THE COMMUNITY

| Health Resource or Service (Top 10) | Total |
|--|-------|
| Access to Affordable Fresh Fruits & Vegetables | 431 |
| Free/Low Cost Medical Care | 391 |
| Free/Low Cost Dental Care | 387 |
| Mental Health Services | 369 |
| Transportation | 332 |
| Free/Low Cost Vision/Eye Care | 318 |
| Health and Wellness Education/Information/Outreach | 266 |
| Prescription Assistance | 260 |
| Housing | 231 |
| Substance Abuse Services | 221 |
| TOTALS: | |

Improving Community Health

One of the final questions asked in the community survey was, "What suggestions do you have to improve health in the community?". Almost half of all respondents wrote in a response. Responses were coded and sorted into larger themes, the top 5 of which can be found below. Other themes that arose from this question included: socioeconomic issues, non-health related community programs and activities, violence and crime, education, child care, and advertising existing programs and services.

1. Access & Affordability of Healthcare/Health Services

- Examples include more mental health services, substance use services, free or affordable health care, more low-cost/free clinics, and expanding or reforming Medicaid.
- "More mental health facilities and services are needed by the public. In general not just those in low income areas. Mental health issues affect all socio-economic groups... some more so than others. It's turned a blind eye because of the lack of funding/support/reimbursement and high costs surrounding it."
- "Affordable healthcare for all, even the employed. The out of pocket expenses are too much! I should not have to decide on taking care of my health because I can't afford the out of pocket expense and I work fulltime for a healthcare provider."

2. Health Literacy

- Examples include a need for more health fairs, and more education aimed at nutrition/exercise
- "I worked in inner city Memphis for 5 years...I encountered MANY families who didn't know when or why to go to doctors or seek out referrals to specialists. Community education programs are so important to the Memphis area!"

3. Community Safety/Environment

- Examples include access to stores with healthy foods, access to parks, community gardens, and improved neighborhood conditions (e.g. sidewalk repair, neighborhood safety).
- "Some people have to spend their grocery money on a ride to the store and then don't have enough to buy the proper groceries and make due with less than optimal foods to feed their family longer."
- "Keep the equipment in parks maintained to promote play for children."

4. Transportation

- Examples include improving the public transportation system and offering free transportation to medical appointments.
- "Improved public transportation options...not everyone can afford to take off work to get medical care, and very few people can afford to spend four hours on a bus to get to their destination."

5. Healthcare Navigation

- Examples include improved cultural humility, more bilingual services, and extended/weekend hours to accommodate those who cannot take away from work.
- "Patients need more access to healthcare facilities that employ providers and staff that can relate to their healthcare and cultural needs."

Limitations

The biggest limitation regarding the CHNA survey is the sample population. Compared to the Shelby County population, CHNA respondents were disproportionately white, female, reported a higher educational level, and reported a higher income. Additionally, the survey structure proved confusing for some, especially when taken on paper. Respondents frequently wrote in responses that were already covered in the answers, or responded to questions that did not apply. Participants also often selected more responses than asked for by the survey. For example, with the question "What are the top 5 most pressing issues related to health in your community?", many participants selected more than 5. The length of the survey was also an issue, as many respondents "dropped off" towards the end, resulting in missing data, including demographics, which were placed at the end of the survey.

Discussion

The results and themes that emerged from the analysis of the CHNA community survey fall into line with many health issues that arose during other portions of the CHNA. Access to healthcare was identified as a major health issue across age, race, and income level, and also appeared as a theme when participants wrote in suggestions. Within accessing healthcare, cost appears to be the largest barrier, either as a barrier to getting health insurance, or receiving specific care, especially care that may not be covered by some insurance providers (e.g. mental health services or substance abuse services).

Overweight/obesity was another health issue frequently identified across demographics. This was echoed in the suggestions to improve health, as many respondents called for increased education around nutrition and exercise and more affordable healthy foods. Access to affordable fruits and vegetables was also identified as a huge missing health-related resource by CHNA respondents.

Finally, transportation was identified as a barrier to care across demographics. Although many of the respondents themselves were able to drive to appointments, responses suggested that Shelby County's current public transportation infrastructure was a barrier to care. This was especially evident in the write-in section, as many respondents specifically mentioned public transportation as a barrier to care.

Overall, the CHNA community survey is unique in that all partners had a hand in creating it. This type of collaboration was not seen in previous needs assessments. This collaboration ensured that multiple aspects of health were covered in the survey, and, with lessons learned from the limitations discussed above, will produce an even more successful community survey in future needs assessments.

References

¹U.S. Census Bureau. (2018). U.S. Census Bureau QuickFacts: Shelby County, Tennessee.

Retrieved from

https://www.census.gov/quickfacts/fact/table/shelbycountytennessee/PST045218

²Data USA. (n.d.). Shelby County, TN. Retrieved from https://datausa.io/profile/geo/shelby-county-tn#economy

Appendix A: Survey Instrument









2019 Community Health Needs Assessment Survey

The Community Health Needs Assessment (CHNA) collaboration consist of multiple organizations partnering to conduct portions of a county-wide Community Health Needs Assessment.

The ultimate goal of the CHNA collaboration is to coordinate community—wide health improvement efforts through moving towards a more comprehensive, inclusive Joint Shelby County CHNA. Your input is VITAL.

This survey will take approximately 20-30minutes to complete. Your individual responses will remain completely anonymous.

The results of the survey will be compiled from across Shelby County and will be shared with all of the organizations in the CHNA Collaboration: Shelby County Health Department, Baptist Memorial Health Care, Methodist Le Bonheur Healthcare, Regional One Health, and St. Jude Children's Research Hospital.

Please return this completed survey to any one of the following:

- the person from one of the participating agencies who gave it to you,
- the locked box in the lobby that is specifically for this survey, or
- drop it off at the front desk of 600 Jefferson Ave, Memphis, TN 38105

Thank you for your time and feedback.

Illness Prevention and Wellness

| 1. | 0 0 0 0 | would you rate your overall health? Excellent Very good Good Fair Poor Don't know / Not sure |
|----|-------------------------------|---|
| 2. | which O O O | e past 30 days, how many days was your physical health, h includes physical illness and injury, not well? No days 1 - 2 days 3 - 4 days 5 - 6 days 7 - 10 days 11 days or more |
| 3. | which not v O O O | e past 30 days, how many days was your mental health, h includes stress, depression, and problems with emotions, well? No days 1 - 2 days 3 - 4 days 5 - 6 days 7 - 10 days 11 days or more |
| 4. | do da O O O | e past 30 days, how many days were you not able to work or ally activities because of poor physical or mental health? No days 1 - 2 days 3 - 4 days 5 - 6 days 7 - 10 days 11 days or more |

| 5. | 0 0 0 | do you describe your weight? Very underweight Slightly underweight About the right weight Slightly overweight Very overweight |
|----|--|--|
| 6. | 0 | h of the following are you trying to do about your weight? Gain weight Lose weight Stay the same weight I am not trying to do anything about my weight |
| 7. | all th | re do you go to exercise or engage in physical activity? Check at apply Church Gym or recreation center Home Neighborhood Part of your daily travel/commute Public parks or trails Workplace Somewhere else (please specify) I do not exercise or engage in physical activity |
| 8. | ties o you k brisk kids, O | 5 – 10 times per week |

If you answered <u>No times</u> to question number 8, skip to question number 10.

| during O L O 2 O 4 | uch time did you spend doing moderate physical activities the past week? ess than 1 hour to 3 hours to 5 hours hours or more |
|---------------------------------|---|
| minute | are the reasons that you do not exercise at least 150 as during a normal week? Check all that apply exercise is not important to me am physically disabled am too tired exercise at least 150 minutes a week do not have access to a facility do not have time to exercise do not know do not like to exercise would need child care and I don't have it toost too much My job or daily routines is physical or hard labor there is no safe space to exercise other (please specify): |
| vaccine O Y O N | |
| Address fir | nancial and other barriers to accessing care |
| O D O H O I O N O U | do you go most often when you are sick? Select only one poctor's office lealth department dospital do not go to any Medical clinic Urgent care center Other (please specify) |

| 2. | form O O O | do you typically get to an appointment or your primary of transportation? Call a friend or family member Drive Medical Transport company Ride the bus/MATA plus Walk Other (please specify) |
|----|---------------------|--|
| 3. | Do yo O O | ou have a primary care physician? Yes No |
| 4. | whic bills. | t is your primary health insurance plan? This is the plan h pays the medical bills first or pays most of the medical Private health insurance could include Blue Cross/Blue d, Kaiser, Aetna, etc. Select only one Private health insurance plan purchased from employer or workplace Private health insurance plan purchased directly from an insurance agency Employer Health Plan Medicare Medicaid Military, Tricare, CHAMPUS, or the VA Indian Health Service No health insurance any kind Don't know / Not sure Other (please specify) |
| 5. | not h | hose of you who selected, no health insurance, why do you have health insurance? Too expensive It does not include all of health care needs that I have now, or might have in the future I have a pre-existing condition that is not covered I am healthy and do not need health insurance today |

Please Continue to the Next Page

- **6.** Have you delayed getting needed medical care for any of the following reasons in the past 12 months? **Select the most important reason**
 - O Not sure who to contact
 - O Once you got there, you had to wait too long to see the doctor
 - O The clinic/doctor's office wasn't open when you went there
 - O The provider would not take your insurance
 - O You couldn't afford the out-of-pocket costs
 - O You couldn't get an appointment soon enough
 - O You couldn't get through on the telephone
 - O You did not have childcare
 - O You didn't have transportation
 - No, I did not delay getting medical care/did not need medical care

| 0 | Other (please specify) | |
|---|------------------------|--|
|---|------------------------|--|

- 7. About how long has it been since you last visited a doctor for a routine checkup? A routine exam is a general physical exam, not an exam for a specific injury, illness, or condition.
 - O Within the past year (anytime less than 12 months ago)
 - O Within the past 2 years (1 year but less than 2 years ago)
 - O Within the past 5 years (2 years but less than 5 years ago)
 - O 5 or more years ago
 - O Don't know / Not sure
 - O Never had a routine physical or doctor's visit
- 8. Do you have routine health screenings for:

| | Yes | No | Not applicable |
|--------------------|-----|----|----------------|
| Breast Cancer | 0 | 0 | 0 |
| Colorectal Cancer | 0 | 0 | 0 |
| Oral/Throat Cancer | 0 | 0 | 0 |
| Prostate Cancer | 0 | 0 | 0 |
| Skin Cancer | 0 | 0 | 0 |

| com | t are the most significant barrie munity from accessing health ca ck all that apply | | |
|------------------|--|--------|---|
| | Pocket Expenses (Copays, Prescriptions, etc.) Difficult to Understand/ Navigate Health Care System Lack of Child Care | | Lack of Transportation Lack of Trust Language/Cultural Issues Not enough time None/No Barriers Don't Know Other (specify): |
| 10. Wha ing y | ot do you think are the top 5 mo your community? (CHOOSE 5) | st pre | essing health issues fac- |
| | Access to Care/ Uninsured Alzheimer's Disease/ Aging Issues Cancer Child Abuse/Neglect Community Support Dental Health Diabetes Domestic Violence Drug Abuse/Alcohol Abuse Firearm Related Injuries Heart Disease High Blood Pressure HIV/AIDS Homelessness Homicide/Violent Crime Infectious Disease (i.e. hepatitis, TB, etc.) | | Infant Death Maternal/Infant Health Mental Health/Suicide Motor Vehicle Crashes Overweight/Obesity Poverty Rape/Sexual Assault Respiratory/Lung Disease Sexually Transmitted Infections (STIs) Stroke Teenage pregnancy Tobacco Use/Smoking Other (please specify): |

| | resources or services, relating in the community? Check | | |
|------------------|---|------------------------|---|
| | Access to Affordable Fresh Fruits & Vegetables Availability of Parks & Recreation Areas Bilingual Services Child Care providers | | Health Screenings Housing Immunization/ Vaccination Programs Medical Specialists (Ex. Cardiologist) |
| | Dental Care Elder Care/Senior | | Prenatal Care Services |
| _ | Services Emergency Care | | Primary Care Providers (Family Doctors) |
| | Free/Low Cost Dental Care Free/Low Cost Medical | | Services |
| | Care Free/Low Cost Vision/ | | Transportation Vision care None |
| | Eye Care Health and Wellness Education, Information, Outreach | _ | Don't know / Not sure Other (please specify): |
| 12. Wha ber h | t type(s) of provider or facil lave trouble getting health (| ity did y care fror | n? Check all that apply |
| | Dentist | | OB/GYN |
| | Eye care/ optometrist/ | | |
| | ophthalmologist General practitioner | | Pharmacy/prescriptions |
| | Health department | | Specialist (what type?) |
| | Hospital | П | Urgent care center |
| | I have not had any trouble getting Health Care | | Other (please specify) |
| | Medical Clinic | | |
| | Never use these services | | |

| 13. | . What gettir | problems prevented you or your family member from gethe necessary health care? Check all that apply |
|-----|------------------|--|
| | | I/we have no health insurance. |
| | | Insurance didn't cover what I/we needed. |
| | | My/our share of the cost (deductible/co-pay) was too high. |
| | | Doctor would not take my/our insurance or Medicaid. |
| | | Hospital would not take my/our insurance. |
| | | Lack of child care |
| | | Lack of trust |
| | | Language/Cultural issues |
| | | Office hours |
| | | Pharmacy would not take my/our insurance or Medicaid. |
| | | Dentist would not take my/our insurance or Medicaid. |
| | | There was no way to get there. |
| | | I/we didn't know where to go. |
| | | I/we couldn't get an appointment. |
| | | The wait was too long. |
| | | I don't know |
| | | Other (please specify) |
| | | |
| Nu | trition | al Health |
| 1. | Do yo | ou eat fruits and vegetables? |
| | • | I only eat fruits |
| | | I only eat vegetables |
| | | I eat both fruits and vegetables |
| | 0 | I do not eat fruits or vegetables |

If you answered <u>I do not eat fruits or vegetables</u> for question number 1, skip to question number 4.

| 2. | day d | ng the past 30 days, <u>not counting juice</u> , how many times per or week did you eat fruit? Count fresh, frozen, or canned Do not include jam, jelly, or fruit preserves. |
|----------------|--------------------|--|
| | 0 | 1 – 2 times per day |
| | 0 | 3 – 4 times per day |
| | 0 | 5 or more times per day |
| | 0 | Less than once per week |
| | | Once per week |
| | | 2 – 4 times per week |
| | | 5 – 6 times per week |
| | 0 | Don't Know / Not sure |
| 3. | Duri | ng the past 30 days, how many times per day or week did |
| | • | eat vegetables? Count fresh, frozen, or canned vegetables. |
| | | 1 – 2 times per day |
| | | 3 – 4 times per day |
| | | 5 or more times per day |
| | | Less than once per week |
| | | Once per week |
| | | 2 – 4 times per week |
| | | 5 – 6 times per week |
| | 0 | Don't Know / Not sure |
| <i>If</i> y 1, | ou ar skip to | nswered <u>I eat both fruits or vegetables</u> for question number o question number 6. |
| 4. | Wha appl | t are the reasons that you don't eat fruits? Check all that |
| | | I don't like eating fruits |
| | | Fruits are too expensive |
| | | The selection and quality of fruits is poor |
| | | Grocery store is too far away |
| | | I do not have transportation to grocery store |
| | | I don't know |
| | | Other (please specify) |
| | | |

| 5. | What are the reasons that you don't eat vegetables? Check all that apply | | | | |
|----|--|--|--|--|--|
| | | I don't like eating vegetables | | | |
| | | Vegetables are too expensive | | | |
| | | The selection and quality of vegetables is poor | | | |
| | | Grocery store is too far away | | | |
| | | I do not have transportation to grocery store | | | |
| | | I don't know | | | |
| | | Other (please specify) | | | |
| 6. | 0 | e grocery store nearest to your home easy to access? Yes No | | | |
| 7. | groce | ur opinion, does the convenience store, or corner store, or ery stores have affordable and fresh fruits and/or tables? | | | |
| | 0 | Yes, has fresh fruits and vegetables | | | |
| | 0 | | | | |
| | 0 | 100, 1100 110011 108010100 0111, | | | |
| | 0 | No, does not have quality fruits or vegetables | | | |
| | | Don't know / Not Sure | | | |
| | O | Other (please specify) | | | |

Please Continue to the Next Page

Social, Behavioral, and Environmental factors

1. In the past 30 days how often have you done the following?

| | Always | Most of the time | Some- times | Rarely | Never | N/A |
|--|--------|------------------|----------------|--------|-------|-----|
| Wear a seatbelt when driving or riding in a car | 0 | 0 | 0 | 0 | 0 | 0 |
| Wear a helmet while riding a bicycle, scooter, roller blading, etc. | 0 | 0 | 0 | 0 | 0 | 0 |
| Eat fast food more than once a week | 0 | 0 | 0 | 0 | 0 | 0 |
| Use of cigarettes | 0 | 0 | 0 | 0 | 0 | 0 |
| Use electronic cigarettes | 0 | 0 | 0 | 0 | 0 | 0 |
| Get exposed to secondhand smoke or vaping mist at home or work | 0 | 0 | 0 | 0 | 0 | 0 |
| Use marijuana | 0 | 0 | 0 | 0 | 0 | 0 |
| Misuse prescription drugs, opioids, heroin, or other illegal drugs | 0 | 0 | 0 | 0 | 0 | 0 |
| Use sunscreen regularly | 0 | 0 | 0 | 0 | 0 | 0 |
| Practice safe sex i.e. use a condom, monogamous, get tested | 0 | 0 | 0 | 0 | 0 | 0 |
| Feel stressed out or overwhelmed | 0 | 0 | 0 | 0 | 0 | 0 |
| Drive responsibly, follow safe rules of the road, drive within the speed limit | 0 | 0 | 0 | 0 | 0 | 0 |

2. During the past 30 days, how often did you drink the following?

| | No times | 1 – 2 times per week | 3 - 4 times per week | 5 or more times per week |
|---|-------------|-------------------------|-------------------------|-----------------------------|
| 5 or more alcoholic beverages (for men) or 4 or more alcoholic beverages (for women) on one occasion or in one sitting | 0 | 0 | 0 | 0 |
| Regular soda or pop that contains sugar (not including diet soda or diet pop) | 0 | 0 | 0 | 0 |

| 3. | What type(s) of public transportation do you (or people in your household) use? Check all that apply |
|----|--|
| | ☐ Bus |
| | ☐ Trolley |
| | ☐ Commuter shuttle |
| | ☐ I don't know |
| | ☐ Bike |
| | □ Walk |
| | ☐ Other (please specify) |
| | |
| 4. | Are there any vandalized or abandoned homes/buildings (e.g. deserted structures with broken windows) within a half block of where you live? O Yes |

Please Continue to the Next Page

O No

5. Have you ever been told by a doctor, nurse, or other health professional that you have:

| | Yes | No |
|---|-----|----|
| Angina or coronary disease | 0 | 0 |
| Anxiety disorder | 0 | 0 |
| Arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia | 0 | 0 |
| Asthma | 0 | 0 |
| Cancer | 0 | 0 |
| Chronic obstructive pulmonary disease (COPD) | 0 | 0 |
| Depressive disorder | 0 | 0 |
| Diabetes | 0 | 0 |
| Heart attack, also called myocardial infarction | 0 | 0 |
| High blood pressure | 0 | 0 |
| High cholesterol | 0 | 0 |
| Overweight/Obesity | 0 | 0 |
| Stroke | 0 | 0 |
| Other (please specify): | 1 | |
| | | |
| | | |

| 6. | | you ever had cancer? Yes No | | |
|----|--------------------|--|-------|--|
| 7. | | cancer Head and neck cancer Heart Hodgkin's Lymphoma Leukemia (blood) cancer Liver cancer Lung | er: (| Oral cancer Ovarian cancer Pancreatic (pancreas) cancer Pharyngeal (throat) cancer Prostate cancer Rectal/Rectum cancer Renal (kidney) cancer Stomach Testicular cancer Thyroid Other skin cancer Other (specify): |
| | Wha O O O | aphics t is your age? 18 - 24 25 - 34 35 - 44 45 - 54 55 - 64 65 + | 2. | is your gender? Female Male |

Please Continue to the Next Page

| 3. | Wha | t is your marital status? |
|----|-----------------|--|
| | 0 | Divorced |
| | | Married |
| | | Never married |
| | | Separated |
| | O | Widowed |
| 4. | Which race i | th one of these groups would you say best represents your |
| | 0 | American Indian or Alaska Native |
| | 0 | Asian/Pacific Islander |
| | 0 | Black/African American |
| | 0 | Hispanic or Latino |
| | | White |
| | 0 | Other (please specify): |
| 5. | Wha | t is the highest grade or year of school you completed? |
| | 0 | Some school, but no diploma |
| | 0 | High school diploma or GED |
| | 0 | Associate's degree |
| | 0 | College, but no degree |
| | 0 | College graduate |
| | | Graduate or professional-level degree |
| | 0 | Other (please specify) |
| 6. | Which statu | of the following categories best describes your employment |
| | | |
| | | Disabled, not able to work Employed, working full-time |
| | | Employed, working run-time Employed, working part-time |
| | | Homemaker |
| | | Retired |
| | | Student |
| | | Unemployed |
| | | Onemployed |
| | | |

| /. | VVIId | is your annual nousehold income? |
|----|----------------|--|
| | 0 | Less than \$10,000 |
| | 0 | \$10,000-\$14,999 |
| | 0 | \$15,000-\$19,999 |
| | 0 | \$20,000-\$24,999 |
| | 0 | \$25,000-\$34,999 |
| | | \$35,000-\$49,999 |
| | 0 | \$50,000 or more |
| 8. | Are y insur | our currently covered by any of the following types of health ance or health coverage plans? Check all that apply |
| | | Employer sponsored |
| | | Medicaid or TennCare |
| | | Medicare |
| | | Tricare |
| | | Other (please specify) |
| 9. | Pleas | e enter your home zip code below: |
| W | hat su | ggestions do you have to improve health in the community? |
| Αd | dditior | nal Comments: |

You have completed the survey. Thank You!



2019 COMMUNITY HEALTH NEEDS ASSESSMENT
COMMUNITY SURVEY THEME 1:
TRANSPORTATION AND POVERTY
Further Research

Transportation and Health

Introduction

Transportation – primarily a lack of accessible, affordable transportation – was identified as a barrier to health in multiple focus groups held by the 2019 Community Health Needs Assessment (CHNA). Transportation was also identified as one of the most-selected barriers to health in the CHNA's community survey, demonstrating a need for improved public transportation, especially at the local level. Public transportation can include buses, trains, and other forms of transportation that run regular routes, charge fares, and are available to the public. Transportation is required for employment, education, health care, food, and social activities. Because transportation is so widespread across a person's life, reliable transportation is essential to building and maintaining healthy communities¹.

Transportation and Health in the United States

Compared to countries such as Europe or Canada, the U.S. is lacking in widespread, reliable public transportation². The most common form of transportation in the U.S. is a personal vehicle, with an estimated 281.3 million cars registered in the U.S.³. However, car ownership can be expensive. From the purchase of the car itself to gas, maintenance, and repairs, car ownership can quickly become unaffordable for low-income families. Additionally, car ownership is also not a viable option for individuals with health conditions that prevent them from driving, such as impaired vision or dementia; or for individuals who are under the legal driving age. Furthermore, despite the investment in public transportation at federal, state, and local levels, public transit ridership has fallen, declining by 7% from 2008 to 2018⁴. This is partially due to the rise of rideshare apps (such as Lyft or Uber), as well as fares that have increased faster than inflation⁴.

Transportation itself is identified as one of the Social Determinants of Health (SDH), an economic and social factor that shapes people's daily lives¹. Transportation issues that can impact health and access to care include a lack of vehicle access, long distances and lengthy travel times to reach needed services, transportation costs, and inadequate infrastructure. Data from the Bureau for Labor Statistics show that people earning less than \$30,000 per year spend up to 24% of their income on transportation¹. Transportation is often connected to other social determinants of health, including poverty and social isolation¹.

In Shelby County, public transportation is currently lacking. In a 2014 report on public transport utilization in cities, Memphis ranked in the bottom third, as did Tennessee as a whole⁵. Public transportation is offered primarily in the form of Memphis Area Transit Authority (MATA) buses, which often run infrequently or inconsistently. Only a few MATA buses offer a 30-minute frequency, one bus offers a 20-minute frequency, and only the downtown trolleys offer a 15-minute or less frequency; the rest may run only once an hour, or even less⁶. For individuals who rely on public transportation, the long waiting period between buses means that missing one bus might be catastrophic in terms of job security, or making it to appointments on time. As a result, MATA is often only used by those who have no other options. According to a 2017 report, MATA riders are predominantly low income (44.7% made less than \$7,500 annually) and African American (84.9%)⁶. Over half of the riders indicated they had no access to a car⁵.

Local Efforts to Address

The Memphis 3.0 Comprehensive Plan, a project implemented by the City of Memphis, surveyed over 1,000 Memphis and Shelby County residents about local transit to help shape change. Seventy seven percent (77%) of respondents said they would pay more per month for improved transit⁷. The transit vision in this Memphis 3.0 plan includes additional routes, more buses, and improved weekend services⁸. This new plan – estimated to cost around \$30 million – would make 45% more jobs reachable in an hour for minority residents, and 49% for low-income residents and would put 79,000 people and 103,00 more jobs near frequent (15 minutes or less) bus service⁸.

In the meantime, Shelby County is making additional efforts to make transportation more affordable and available. For the 2019-2020 school year, Shelby County Schools purchased 3,000 bus passes to support students and their guardians in getting to school, and improving access to vocational and extracurricular activities⁹. Passes will be distributed based on eligibility and availability. In addition, in 2019, MATA partnered with the Memphis Medical District Collaborative to pilot a commuter shuttle. The Groove Shuttle is free to any student or employee at the medical and educational institutions in the Medical District, and will run mornings and afternoons from Harbortown Circle all the way down to the Southern College of Optometry¹⁰.

Within Methodist Le Bonheur Community Outreach (MLCO), several programs have partnered with Lyft to assist families and children in getting to doctor's appointments or other healthcare and/or program-related activities. Additionally, almost all MLCO programs are able to offer

clients bus passes to help them get to care. Finally, MLCO is exploring telehealth options as another avenue of care for clients in rural areas or for whom transportation is a barrier.

Implications for Healthcare

It is almost impossible to receive healthcare without a means of transport. Unfortunately, estimates suggest that 3.6 million people in the U.S. do not obtain medical care due to transportation barriers¹. Multiple studies have found lack of transportation to be a barrier to receiving timely health care, with numbers ranging from 12% to 21%^{11,12}. Lack of transportation can lead to missed health care appointments, delayed care, and missed or delayed medication use, thus leading to poorer management of chronic conditions and overall poorer health outcomes¹³.

Additionally, other needs assessments done have found patients citing transportation as a barrier¹⁴. In a 2006 survey of North Carolina residents, Arcury, Preisser, Gesler and Powers found that those who had a driver's license had 2.29 more health care visits for chronic care and 1.92 times more visits for regular checkup care compared to those who did not¹⁵. More broadly, multiple studies found a positive relationship between having vehicle access (either owning a car or having access to a car via family or friends) and access to health care.

Transportation challenges can affect both urban and rural communities. Individuals who are older, less educated, female, veterans, children, minority, or low income - or are a combination of these characteristics – are more likely to be adversely affected by transportation barriers¹³. Those individuals are especially vulnerable to transportation barriers due to social isolation, comorbidities, and greater need for frequent medical visits¹³. One study found that nationally, regardless of insurance status, 4% of children in the U.S. (approximately 3 million) miss a health care appointment each year due to lack of transportation¹⁶. For children in families with incomes less than \$50,000, the number who missed a health care appointment due to transportation rose to 9%¹⁶.

While much of the U.S. public transportation needs to be overhauled, in the meantime, hospitals have a role in improving patient's access to care in order to improve health outcomes, quality of life, and cost savings for the patient and the healthcare system¹. Efforts could include expanding partnerships to address transportation issues, implementing shuttle services, and investing and supporting programs that lessen the travel burden, such as telehealth or mobile health clinics¹.

Such efforts would result in improved healthcare access for vulnerable populations, improve health outcomes, and create an overall healthier community.

References

- ¹Health Research & Educational Trust. (2017, November). *Social determinants of health series: Transportation and the role of hospitals*. Chicago, IL: Health Research & Educational Trust.

 Accessed at www.aha.org/transportation
- ² Columbia University. (2018, October 22). Why public transportation works better outside the U.S. Retrieved from https://www.citylab.com/transportation/2018/10/while-america-suffocated-transit-other-countries-embraced-it/572167/
- ³Hedge's Company. (2019, July 1). US Vehicle Registration Data 2018. Retrieved from https://hedgescompany.com/automotive-market-research-statistics/auto-mailing-lists-and-marketing/
- ⁴Mallett, W. J. (2018). *Trends in public transportation ridership: Implications for federal policy*. Congressional Research Service. Retrieved from https://fas.org/sgp/crs/misc/R45144.pdf
- ⁵Fischer-Baum, R. (2014, July 31). How your city's public transit stacks up. Retrieved from https://fivethirtyeight.com/features/how-your-citys-public-transit-stacks-up/
- ⁶Jarret Walker & Associates. (April 2018). *Memphis 3.0 transit vision draft recommended network*. Memphis, TN.
- ⁷Memphis Area Transit Authority. (2018). 2017 Title IV program update. Memphis, TN: Memphis Area Transit Authority.
- ⁸Memphis 3.0 (n.d.). Transit: Memphis Comprehensive Plan: Memphis 3.0: United States. Retrieved from https://www.memphis3point0.com/transit
- ⁹Shelby County Schools. (2019). We're giving our students a lift. Retrieved from http://www.scsk12.org/matabuspass/
- ¹⁰Memphis Medical District Collaborative. (2019). Groove Shuttle. Retrieved from https://www.mdcollaborative.org/groove-shuttle
- ¹¹Diamant, A. L., Hays, R. D., Morales, L. S., Ford, W., Calmes, D., Asch, S., ... Gelberg, L. (2004). Delays and unmet need for health care among adult primary care patients in a restructured urban public health system. *American Journal of Public Health*, 94(5), 783–789. doi: 10.2105/ajph.94.5.783

- ¹²Blazer, D. G., Landerman, L. R., Fillenbaum, G., & Horner, R. (1995). Health services access and use among older adults in North Carolina: urban vs rural residents. *American Journal of Public Health*, *85*(10), 1384–1390. doi: 10.2105/ajph.85.10.1384
- ¹³Syed, S. T., Gerber, B. S., & Sharp, L. K. (2013). Traveling towards disease: Transportation barriers to health care access. *Journal of Community Health, 38*(5), 976–993. doi: 10.1007/s10900-013-9681-1
- ¹⁴Osuji, P. (2016). Impact of transportation on health outcomes. PowerPoint presentation. Phoenix, AZ⁻
- ¹⁵Arcury, T. A., Preisser, J. S., Gesler, W. M., & Powers, J. M. (2005). Access to transportation and health care utilization in a rural region. *The Journal of Rural Health, 21*(1), 31–38. doi: 10.1111/j.1748-0361.2005.tb00059.x
- ¹⁶Grant, R., Gracy, D., Goldsmith, G., Sobelson, M., & Johnson, D. (2014). Transportation barriers to child health care access remain after health reform. *JAMA Pediatrics*, *168*(4), 385. doi: 10.1001/jamapediatrics.2013.4653



2019 COMMUNITY HEALTH NEEDS ASSESSMENT FOCUS GROUP REPORT

Methodist Le Bonheur Healthcare

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Abstract

Methodist Le Bonheur Community Outreach (MLCO) held 11 focus groups with 139 community members of varying age, race, and gender over a 3-month period. The discussion in the groups revolved about community health, including identifying and discussing the most prevalent health issues in the community and barriers to care. Across all the groups, many similar themes emerged. First was a need for improved healthcare navigation and cultural humility. Second was a need for improved mental health resources and a decrease in stigma surrounding mental health. Third was the issue of uninsured or underinsured populations being unable to find or afford health care. Fourth was the need to increase the community's knowledge of already-available resources. The final theme was the barrier of poverty and health. These themes revealed the community's concern and understanding of the impact these seemingly non-health-related factors can have on the community's health. Overall, participants felt that offering assistance with healthcare navigation and addressing these other barriers was an opportunity for healthcare organizations to improve upon and increase patient engagement, trust, and ultimately improve health outcomes.

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Executive Summary

As part of the Community Health Needs Assessment (CHNA), Methodist Le Bonheur Community Outreach (MLCO) held multiple focus groups over a 3-month period. The purpose of the focus groups was to discuss health issues with members of the community in a more robust and openended fashion. Focus groups also allow for more organic discussion, and for the facilitators to delve further into select responses.

Questions for the focus group were collected from a variety of sources and selected by the MLCO Program Evaluation team. For the focus groups themselves, community members were recruited from other MLCO programs, fliers, word of mouth, and social media. MLCO held a total of 11 focus groups at multiple locations with 139 community members. The makeup of these groups varied, and included housing stakeholders, people living with chronic diseases, parents and/or caregivers, school personnel, senior citizens, people of Hispanic descent, and community members living in Olive Branch, Mississippi. Participants were compensated for their time with a \$20 Kroger grocery gift card.

Although the makeup of the groups varied, similar themes emerged in all focus groups. The first theme was the need for healthcare navigation and cultural humility. Multiple participants spoke about their negative experiences with healthcare providers, including feeling dismissed or not listened to, cultural barriers, and difficulty making timely appointments. The second theme revolved around mental health. Every focus group identified mental health as a significant issue in their community. This included issues around a lack of resources (especially free or low-cost resources) and the general stigma often surrounding mental health and mental health treatment. The third theme was the prevalence of uninsured or underinsured populations. Participants spoke of the difficulties they or others in their community encountered when seeking healthcare while uninsured, including lack of services, long wait times, and being unable to afford services. The fourth theme was knowledge of resources. Many participants expressed that they or others in their community were unaware of existing healthcare resources or services in Memphis. The fifth and final theme that emerged was poverty and health. Income inequality plays a large role in health, and often affects the other themes mentioned. Participants routinely listed economic issues as a barrier to care in their community, including being unable to afford care, or its contribution to other social determinants of health, such as adequate housing or transportation.

These themes, and others that emerged in the focus group, revealed the community's awareness of the impact many non-health factors (e.g. economic condition, resource availability) can play on someone's health status. This aligns with the increasing understanding of the importance of the social determinants of health. Furthermore, participants felt strongly that healthcare organizations could do more than just provide care, and that offering assistance in navigation and finding appropriate social service programs would improve patient satisfaction and health outcomes.

Background

Focus groups were held to collect more specific input from community members regarding health issues in Memphis and Shelby County. Unlike community and stakeholder surveys, focus groups allow for more robust and open-ended questions to be asked and answered by members of communities most affected by the health issues being assessed. Researchers are also able to collect more information from participants in a shorter amount of time. Discussions between focus group participants often allow facilitators to dig through layers of a statement, to the heart of the issue and the indicators that truly affect it. Focus groups also strengthen visibility of the assessment process to community members, and help lay the groundwork for the dissemination process of the completed report.

Methodology

Focus groups were led by Program Evaluators from the Methodist Le Bonheur Community Outreach (MLCO) Program Evaluation team, all of whom had received prior training on note taking and facilitating discussion groups. Questions were collected from a variety of sources, including the Avera/Sanford/City Community Health Needs Focus Group Report by Sumption & Wayland,² Arizona State University Southwest Interdisciplinary Research Center,³ Cambridge Health Alliance Dept. of Community Affairs,⁴ and Social Entrepreneurs, Inc.⁵ Questions were then reduced to a manageable number by the Program Evaluation team. A pilot focus group was held with community health workers at MLCO to test the effectiveness of the focus group questions and script. Program evaluators met after this pilot focus group and edited questions for time and engagement purposes. The final focus group script and prompts centered on community health and the greatest health issues faced by community members. This script can be found in Appendix A.

Procedures

Eleven focus groups were conducted over a 3-month period by MLCO Program Evaluation staff members and included 139 community members. Each focus group contained between 8 and 22 participants and included a facilitator and 1-2 note takers. Notes for each focus group were collected via paper and pen and were typed and shared amongst the Program Evaluation team. Focus group participants were compensated for their time with a \$20 Kroger gift card. Light refreshments were also provided. When possible, focus groups were held in locations that best served the participants. Focus groups were held at the MLCO office, as well as churches, housing developments, community coalition meetings, and non-profit organizations.

Focus groups were directed to and marketed towards community members that were already connected to various community programs, either through MLCO program staff specifically or partnerships with other community organizations. Fliers were created and distributed using email, social media, and word of mouth. Focus groups were held with housing stakeholders, families living in city-provided housing, community members of Hispanic decent, senior citizens, patients living with HIV/chronic disease, parents and/or caregivers, school personnel, and residents of Olive Branch, Mississippi. A general breakdown of focus group participants can be found at the end of this report.

Facilitators spoke with focus group participants about their views regarding community health issues in their communities. Participants were asked to share what they thought were the biggest health issues faced by their community members, and what resources exist to address those issues. Probing further into the subject of available resources, participants were asked about the barriers that they thought kept people from connecting to care in response to the highlighted community health issues. Participants discussed the role of healthcare organizations in addressing these wide-spread community health issues, both as medical care centers and also large employers of Shelby County residents.

Once all focus groups were completed, the Program Evaluation team worked together to begin to analyze common and individual themes throughout the groups. Those themes were then connected to findings from other portions of the overall community health needs assessment, including community and stakeholder surveys, secondary health data, church health needs assessments, and individualized deep dives into overarching themes connected to social determinants of health that were developed by the program evaluation team.

The following pages focus only on the themes found via the community focus groups, but the issues discussed closely match issues highlighted in other data sources used for the CHNA. For more information into these themes, including background information and implications to healthcare, please refer to the Focus Group Further Research Reports.

Participants

TABLE 1. FOCUS GROUPS BY RACE AND ETHNICITY

| Focus Group Population | White | African- American | Hispanic | Asian / Pacific Islander / Other |
|---|-------|----------------------|----------|-------------------------------------|
| MLCO Staff | 4 | 9 | | |
| People Living with HIV/Chronic Disease People of Hispanic Descent | 1 | 23 | 54 | 1 |
| Housing Stakeholders | 1 | 4 | | 2 |
| School Personnel | 2 | 9 | | |
| Residents of Olive Branch, MS | 4 | 2 | 1 | |
| Residents of Memphis Housing Authority | | 12 | | |
| Shelby County Parents/Caregivers | 2 | 8 | | |
| Total | 14 | 67 | 55 | 3 |

TABLE 2. FOCUS GROUPS BY AGE

| Focus Group Population of Focus | Adults 18-65 | Adults 65+ | Total |
|--|--------------|------------|-------|
| MLCO Staff | 13 | | 13 |
| People Living with HIV/Chronic Disease | 21 | 3 | 24 |
| People of Hispanic Descent | 48 | 7 | 55 |
| Housing Stakeholders | 7 | | 7 |
| School Personnel | 11 | | 11 |
| Residents of Olive Branch, MS | 7 | | 7 |
| Residents of Memphis Housing Authority | 7 | 5 | 12 |
| Shelby County Parents/Caregivers | 10 | | 10 |
| Total | 124 | 15 | 139 |

TABLE 3. LOCATION AND DATE OF FOCUS GROUPS

| Population of Focus | Date of Focus Group | Location |
|--|--|---|
| MLCO Staff (Pilot Focus Group) | Thursday, May 30 th 1:00 am – 3:00 pm | 600 Jefferson Ave Conf. Rm. 2 |
| People Living with HIV | Wednesday, June 19 th 8:30 am-10:30 am | Hope House 23 S. Idlewild St. |
| Latino | Thursday, June 20 th 10:00 am – 12:00 pm | St. Stephens UMC 3981 Macon Rd. |
| Healthy Homes Partnership | Thursday, June 20 th 12:00 pm – 1:30 pm | U of M – School of Law 1 N. Front St. |
| Latino | Tuesday, June 25 th 6:00 pm – 8:00 pm | St. Stephens UMC 3981 Macon Rd |
| Shelby Co. School Employees | Wednesday, June 26 th 10:00 am – 11:30 am | 600 Jefferson Ave Conf. Rm. 1 |
| Memphis Housing Authority | Thursday, July 18 th 12:45 pm – 2:15 pm | Paul Borda Towers 21 Neely St. |
| Parents/ Caregivers | Tuesday, July 30 th 2:00 – 3:30 pm | 600 Jefferson Ave 2 nd floor conference room |
| Olive Branch (Community Members) | Thursday, August 8 th 10:00 am – 12:00 pm | Maples Memorial United Methodist Church 8745 Goodman Road |

Results/Key Findings

Theme 1: Need for Healthcare Navigation and Cultural Humility

"[Providers need to] make me feel like the person I am."

In each focus group, participants highlighted their inadequate experiences with the healthcare system. Understanding of health insurance, distrust of medical providers, and knowledge of quality resources were all identified as a "Top 3" community health issue by focus group participants. Participants talked about the difficulties in making timely appointments, struggling with cultural barriers between them and their healthcare providers, and continuous miscommunications between themselves and healthcare staff. They felt the community as a whole needed more information about connecting to services and navigating the healthcare system.

Due to the nature of our focus group marketing, participants involved in the CHNA focus groups were more likely to be engaged with their individual health care. This could reflect in an increase in rates of healthcare utilization for participants compared to the general population, but it also tells a story that even residents that are fairly knowledgeable about health are struggling with feeling connected to and navigating the healthcare systems in Shelby County.

Miscommunication seemed a common thread that wound through many of the participants' anecdotal stories regarding their experiences with health services. Many of them felt they were taken advantage of because of their insurance status, while many others felt their concerns were ignored by providers because of stigma and cultural bias related to their ethnicity or health status.

Participants in focus groups that focused on our Spanish-speaking communities also spoke of the cultural disconnect they felt with medical providers, outside of general insurance knowledge or language barriers. To them, these disconnects became very visible when, as patients, they were told by their doctors to change their diets because of a medical diagnosis or general health status. Participants felt their medical providers had very little knowledge about their culture's food habits, so their suggestions about diet changes often were not applicable or were confusing to Hispanic patients. One participant said she thought of a diet as "a banana and a yogurt," and did not feel confident in what other changes she should be making in her daily eating habits. Participants also spoke about the struggle of finding accessible specialized care providers that provided Spanish translators, including mental health providers.

Participants in other focus groups shared similar anecdotes about feeling misunderstood or unsupported by medical professionals, saying they sometimes felt they were treated poorly because of their health status and the stigma attached to it, such as being HIV positive or having a mental health diagnosis. They felt that improving communication for patients would greatly

benefit the process of navigating the healthcare system and truly engaging with their individual health care

Theme 2: Mental Health Stigma Keeping Community from Accessing Resources "Our kids are hurting."

Every focus group hosted for the CHNA included a reference to mental health as a significant community health issue. While it was not always highlighted as one of the top 3 most significant by participants, focus group members often spoke of the lack of mental health resources in their communities. When pressed on this, it became clearer that they felt the resources in the community that existed were underutilized, partially because of cost and understanding of insurance coverages, but also because of the culture of the community itself. Participants spoke about the stigma of mental health counseling, and how they felt that because mental health was not openly discussed, people who most needed help were not reaching out to the services available to them.

When asked about other barriers that existed to access mental health services, focus group participants cited things such as the time it took to get an appointment and diagnosis, the cost of prescribed medication — especially for patients with no or limited health insurance —, and the lack of support systems for community members. Patients described the struggles of overcoming mental health issues without family members or friends that could support them and provide encouragement. Shelby County Schools (SCS) employees emphasized the need for mental health resources for students in Shelby County, many of whom have experienced traumatic events in their personal lives. They felt that more mental health education in school settings would benefit more of the student population, instead of just focusing these efforts on students who acted out or had behavior issues.

Theme 3: Uninsured/Underinsured Populations

"One of the medications I take is \$5,000 a pill! I wouldn't be able to afford it without insurance!"

While most of our focus group participants reported that they had insurance, many still considered health insurance, or the lack thereof, a significant health issue in their communities. Members discussed how uninsured patients were limited in their medical provider and health clinic options, and how they often experienced long wait times and treatments they could not afford. As discussed previously under healthcare navigation, uninsured and underinsured

patients encounter barriers that prevent them from seeking the appropriate health services. These barriers can include their insurance not being taken, the service not being covered, or the patient not knowing how to navigate the resources available to them.

Participants also felt that patients lacked health literacy skills that could help them further understand their insurance coverages and processes. This lack of health literacy touches on many of the themes highlighted here, but especially when considering how community members make their health insurance policies work for them. Many focus group members shared experiences where having health insurance made their medical journey even more complicated than if they hadn't had health insurance. Participants spoke of the difficulty of having to change providers when they finally received insurance coverage. This left them to learn a new health provider's appointment and billing process and forfeited the relationships they had formed with their previous healthcare providers. Sometimes these new providers were further away or had different business hours.

However, focus group participants made a point to acknowledge the benefits that came with having health insurance as well, even if that health insurance did not cover everything they optimally would have liked. Older participants specifically discussed the considerable cost of their health needs, if they were uninsured.

Theme 4: Knowledge of Resources

After focus group participants listed the barriers to the top 3 significant health issues in their communities, they were then asked to name any community resources that helped address those barriers and health issues. Health clinics such as Church Health Center, Christ Community Health Services, and Memphis Health Services were all recognized as health options for uninsured or underinsured patients, while support organizations like Friends for Life and Memphis Inter-Faith Association (MIFA) were highlighted for the work they provide to community members experiencing chronic disease or food availability concerns.

However, knowledge of resources was also routinely discussed as a barrier in itself to addressing health issues in Memphis. When asked about resources that served health needs for community members outside of health care assistance, participants were less familiar with options in Memphis. The majority of focus groups could not confidently name an organization that might help patients with insurance admittance or provide free or discounted mental health services. Focus group members spoke in depth about the difficulty of finding quality resources, or navigating the admission processes for all the different community organizations that exist.

Theme 5: Poverty and Health

Focus group participants across all focus groups spoke on the overwhelming effects that socioeconomic status had on community health. As we know, income inequality is heavily linked to access to healthcare. Factors like availability of transportation, diet and exercise, mental health, adverse childhood experiences, and having health insurance all affect patients that live in low-income communities. These gaps between health services and the community members that most need them were emphasized in multiple focus group discussions and are an underlying presence in all of the themes mentioned in this report.

Group members routinely listed economic conditions as a barrier to almost every significant health problem present in their community, and often discussed the "trickle-down" effect that poverty had on other community health issues like addiction, stress, adequate housing, and utilization of healthcare. They saw the long-lasting effects that events like felony convictions, school drop outs, and chronic disease could have on a family's economic standing. Focus group participants felt that an overwhelming amount of their fellow community members lacked financial literacy, which then contributed to them not fully taking advantage of the financial aid programs offered by healthcare system and community resources.

Conclusion

Common themes across all eleven focus groups highlighted the impact of non-health factors on patient's health status, including economic conditions, education level, insurance status, and resource availability. Focus group participants feel that health care organizations can do more for their patients outside of just providing care, including helping patients with limited health and financial literacy skills. Barriers to navigating healthcare for many community members have left them feeling distrustful and wary of health care providers. These gaps show possible areas of growth for Methodist Le Bonheur Healthcare and all local healthcare systems in patient engagement, as well as addressing the social factors that impact health outcomes.

References

- 1. Gibbs, A. (1997). Focus Groups. Social Research Update, (19). Retrieved from http://sru.soc.surrey.ac.uk/SRU19.html
- 2. Sumption & Wyland. (2015). Sioux Falls Community: Community Health Needs Assessment Focus Group Report. Sioux Falls Community: Community Health Needs Assessment Focus Group Report. Retrieved from http://livewellsiouxfalls.org/images/uploads/main/AVERA-SANFORD-CITY-FocusGroupReportFinal(8-28-15).pdf
- 3. Figueroa, H. L., Talmage, C., & Wolfersteig, W. (2016). Coordinated Community Health Needs
 Assessment: Focus Group Results, Final. Coordinated Community Health Needs
 Assessment: Focus Group Results, Final. Arizona State University Southwest
 Interdisciplinary Research Center. Retrieved from
 https://sirc.asu.edu/sites/default/files/[term:name]/[node:create:custom:Ym]/coordinate
 d_community_health_needs_assessment_focus_group_results_final_fall_2016.pdf
- 4. Cambridge Health Alliance Department of Community Affairs. Health Behaviors Focus Group Findings Nov 2002-August 2003. Retrieved from http://www.challiance.org/Resource.ashx?sn=CommunityAffairshealthbehaviorsfocusgroupsreport
- 5. Social Entrepreneurs, Inc. Needs Assessment Focus Group Toolkit. Retrieved from https://socialent.com/wp-content/uploads/2009/05/needs-assessment-focus-group-toolkit.pdf
- 6. Bor, J., Cohen, G. H., & Galea, S. (2017). Population health in an era of rising income inequality: USA, 1980–2015. The Lancet, 389(10077), 1475–1490. doi: 10.1016/s0140-6736(17)30571-

Appendix A: Focus Group Script

Methodist Le Bonheur Healthcare 2019 Community Health Needs Assessment

Focus Group Script: (15 minutes)

- Read Verbal Consent Script [includes CHNA Introduction and Consent Letter].
- Have participants introduce themselves and what zip code they live in if they are comfortable.
- 1. What does community health mean to you? (7 minutes)
- 2. What are the most significant problems related to health in your community? *Write down answers on flip chart* (10 minutes)
 - a. *Prompt* Who is the most affected by [that] issue in your community?
 - b. Of those problems you just listed, what do you think are the top 3 most significant health problems in your community? (10 minutes)
- 3. What are some reasons that people don't receive care related to [these top 3 health issues]? *Again, writing down their answers.* **(15 minutes)**
- 4. What resources are available in the community to address [these top 3 health issues]? Go through each issue, writing down their answers on the flip chart. (10 minutes)
- 5. What would you like to see healthcare providers do to help people get help with these issues? When I say "healthcare providers", I mean healthcare businesses like MLH and Baptist, community clinics like Christ Community and Church Health, even community programs and your doctor's office. (10 minutes)
- 6. What do you think is going well in our community, in regards to health? Also could be worded: "What do you think our community is doing correctly, in regards to health? (8 minutes)
- 7. Does anyone have anything else they would like to add about issues related to health in their community? (5 minutes)

Closing – (5 minutes)

- Ask if anyone has any questions for you regarding the focus group or the CHNA.
- Thank them again for their time and participation.
- Make sure they know that the final version of the CHNA will be posted on the MLH website in early 2020 or they can give us their email address, if they would like a copy sent to them.



2019 COMMUNITY HEALTH NEEDS ASSESSMENT FOCUS GROUP COMMUNITY THEME 1: HEALTHCARE NAVIGATION

Further Research

Healthcare Navigation and Cultural Humility as an Identified Community Need

A common theme across the 2019 Community Health Needs Assessment was the need for improved healthcare navigation for patients. This need spanned across multiple focus group discussions and survey responses and included issues such as distrust of medical providers, uncertainty about understanding health insurance coverages, health literacy, and lacking personal relationships with healthcare providers.

The connection between patient navigation and health outcomes is not a new notion in healthcare, although the ways in which it is utilized are vast and ever-changing. Patient navigation programs provide patients with a personal "guide" through the healthcare system, and were first used in the 1990s, when navigators were placed in communities to connect low income patients in Harlem with breast cancer screenings at Harlem Hospital in New York City.¹

However, healthcare navigators, as they came to be called, became much more utilized across all healthcare systems with the passing of the Affordable Care Act (ACA), which opened up the medical world to people who had not before been a part of it.² Healthcare navigators were crucial in the expansion of health insurance to those previously overlooked patients. Patients required extra support when learning to navigate the process of buying insurance through their state's Marketplace, as well as their individual eligibility for state support programs and financial assistance. Navigators also help patients schedule doctor visits and sign up for financial support options.

While healthcare navigators serve an important role in healthcare, patients also face issues when interacting with their medical provider in healthcare spaces, outside of the scope of navigator roles. Patient-provider relationships include all the ways that doctors and patients communicate and gather information from one another and provide the foundation for positive outcomes and effective health care delivery.³ A 2017 survey hosted by the Council of Accountable Physician Practices (CAPP) found that respondents felt the patient-provider relationship was the single most important factor in quality of healthcare.⁴ Other research has also shown that patient-centered communication was associated with overall better patient recovery, better health status, and increased efficiency of care due to reduced diagnostic testing and referral services needed.⁵ However, many factors and barriers exist that negatively impact patient relationships

2019 CHNA Focus Group: Theme 1

with their provider, including limited English proficiency,⁶ limited health literacy rates,⁷ implicit bias,⁸ and unrealistic patient expectations.⁹

However, patients also experience barriers to positive health outcomes and medical provider relationships in the form of cultural understanding. Cultural humility – previously called "cultural competence" - has been heavily utilized in healthcare spheres since the early 2000s and beyond as a way to positively combat health disparities, but these barriers continue to exist for patients today. Research has shown that gaps in cultural understanding impacted health experiences ranging from patient-provider communication, expectations of care, and adherence to physician-prescribed treatments.¹⁰ However, these gaps take more than just medical provider training to address; a 2005 analysis by Health Affairs emphasized that tackling cultural competence related health disparities required a robust and evidence-based approach that focuses on all forms of healthcare – data collection, academic research, and quality assurance practices.¹¹

National Efforts to Address

Nationally, there have been many efforts to improve patient health experiences in the name of improving patient outcomes. One of these efforts is the Consumer Assessment of Healthcare Providers and Systems Plans (CAHPS) program. The CAHPS is a survey that focuses on consumer/patient interactions with healthcare systems, including doctor communication, experiences with staff, and ease of access to services. The survey allows healthcare systems to capture patient satisfaction scores and use them to identify gaps in the quality of service they provide. Medical schools have started incorporating cultural competence trainings and cross-sectional activities into their curriculums, with many accreditations now requiring more robust focus placed on the diverse cultures and belief systems that patients encompass. The federal government has also taken an interest in increasing cultural understanding across health care services, with the Office of Minority Health of the Department of Health and Human Services delivering 14 national standards that address the need for culturally and linguistically appropriate services (CLAS) in health care.

Local Efforts to Address

Methodist Le Bonheur Healthcare utilizes multiple programs to increase patient navigation and engagement with healthcare. Programs like the Congregational Health Network seek to connect with patients through their congregations and help provide health education and improve health outcomes in under-served zip codes. This program was created in 2006 and has used its vast

network of partnerships to reach over 2000 community health liaisons and clergy members across Memphis. ¹⁶ This model of community-based health care navigation has since been called the "Memphis Model." MLH participates in the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey, the hospital side of the CAHPS survey mentioned above, to monitor and track patient satisfaction scores and highlight areas of improvement at MLH facilities across Memphis and Shelby County.

MLH also utilizes community navigators for Spanish-speaking patients as well, in the form of two community health navigators that are embedded in Hispanic communities in Memphis. These navigators are available to provide translation and health information services to MLH patients, and help community members connect with medical care providers in a way that best serves their needs. They also help connect health screening programs to communities that are historically underserved by these efforts, including mobile breast screenings programs sponsored through Susan G. Komen. Methodist Le Bonheur Healthcare also partners with Church Health to offer a six-week certificate course titled Serving the Underserved that aims to provide health science students with insight to underserved populations and the effects of poverty on a community's health.¹⁷

Implications to Healthcare

Research has begun to support the connection between the doctor-patient relationship and patient health outcomes. A 2006 study by Beach and Moore found that HIV patients that felt "known as a person" by their medical provider showed better health outcomes related to highly active antiretroviral therapy (HAART) treatment, including better adherence rates, fewer missed appointments, and lower HIV RNA levels. ¹⁸ Other studies have shown that patients who feel supported by patient-centered communications are overall more satisfied with their medical care and show greater increases in overall health status. ¹⁹ ²⁰ ²¹

With racial and ethnic minorities expecting to make up 1/3rd of the United States population by 2055, ²² health disparities related to patient access and cultural barriers are also expected to increase. Healthcare patients will become even more diverse in terms of cultural ideas about health, socioeconomic status, education level, and sexual orientation. In order to best serve these patients, hospital systems must create health spaces that rise above these barriers and reach community members where they are. This includes streamlining hospital processes to be available and obtainable to all and creating workplace cultures that support patients from all walks of life and circumstances.

References

¹ Freeman, H. P., & Rodriguez, R. L. (2011). History and principles of patient navigation. *Cancer*, *117*(S15), 3537–3540. doi: 10.1002/cncr.26262

- ⁴ Council of Accountable Physician Practices (CAPP) Focus Group Research Results. (2017).

 Retrieved from http://accountablecaredoctors.org/wp-content/uploads/2017/11/capp-research what-patients-and-doctors-want.pdf
- ⁵ Stewart, M., Brown, J. B., Donner, A., McWhinney, I. R., Oates, J., Weston, W. W., & Jordan, J. (2000). The Impact of Patient-Centered Care on Outcomes. *The Journal of Family Practice*, 49(9). Retrieved from https://www.researchgate.net/publication/12292586 The Impact of Patient-Centered Care on Outcomes
- ⁶ Partida, Y. (2007). Language Barriers and the Patient Encounter. *AMA Journal of Ethics*, *9*(8), 566–571. doi: 10.1001/virtualmentor.2007.9.8.msoc1-0708
- ⁷ Hironaka, L. K., & Paasche-Orlow, M. K. (2008). The implications of health literacy on patient-provider communication. *Archives of Disease in Childhood*, *93*(5), 428–432. doi: 10.1136/adc.2007.131516
- ⁸ Chapman, E. N., Kaatz, A., & Carnes, M. (2013). Physicians and Implicit Bias: How Doctors May Unwittingly Perpetuate Health Care Disparities. *Journal of General Internal Medicine*, *28*(11), 1504–1510. doi: 10.1007/s11606-013-2441-1
- ⁹ The, A.-M., Hak, T., Koeter, G., & Wal, G. V. D. (2000). Collusion in doctor-patient communication about imminent death: an ethnographic study. *Bmj*, *321*(7273), 1376–1381. doi: 10.1136/bmj.321.7273.1376

² Patient Engagement HIT. (2017). What Are Healthcare Navigators, Patient-centered Care Benefits? Retrieved from https://patientengagementhit.com/news/what-are-healthcare-navigators-patient-centered-care-benefits

³ Ha JF, Longnecker N. Doctor-patient communication: a review. *Ochsner J.* 2010;10(1):38–43.

- ¹⁰ Berger, J. T. (1998). Culture and Ethnicity in Clinical Care. *Archives of Internal Medicine*, *158*(19), 2085. doi: 10.1001/archinte.158.19.2085
- ¹¹ Betancourt, J. R., Green, A. R., Carrillo, J. E., & Park, E. R. (2005). Cultural Competence And Health Care Disparities: Key Perspectives And Trends. *Health Affairs*, *24*(2), 499–505. doi: 10.1377/hlthaff.24.2.499
- ¹² Agency for Healthcare Research and Quality. (2016). CAHPS: Assessing Health Care Quality From the Patient's Perspective. Retrieved from https://www.ahrq.gov/cahps/about-cahps/cahps-program/cahps brief.html
- ¹³ Cultural Competence in Health Care: Is It Important For People with Chronic Conditions?

 Retrieved from https://hpi.georgetown.edu/cultural/
- ¹⁴ Liaison Committee on Medical Education. (2001). Functions and structure of a medical school. Retrieved from www.lcme.org/functions2003september.pdf
- ¹⁵ Office of Minority Health. (2018). Retrieved from https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=2&lvlid=53
- ¹⁶ T. Cutts, E. Rafalski, C. Grant and R. Marinescu, "Utilization of Hot Spotting to Identify Community Needs and Coordinate Care for High-Cost Patients in Memphis, TN," *Journal of Geographic Information System*, Vol. 6 No. 1, 2014, pp. 23-29. doi: 10.4236/jgis.2014.61003
- 17 Church Health Center. (2019). Retrieved from https://churchhealth.org/serving-the-underserved/
- ¹⁸ Beach, M. C., Keruly, J., & Moore, R. D. (2006). Is the quality of the patient-provider relationship associated with better adherence and health outcomes for patients with HIV?. *Journal of general internal medicine*, 21(6), 661–665. doi:10.1111/j.1525-1497.2006.00399
- ¹⁹ Kaplan, S. H., Gandek, B., Greenfield, S., Rogers, W., & Ware, J. E. (1995). Patient and Visit Characteristics Related to Physicians??? Participatory Decision-Making Style. *Medical Care*, *33*(12), 1176–1187. doi: 10.1097/00005650-199512000-00002

- ²⁰ Brody, D. S., Miller, S. M., Lerman, C. E., Smith, D. G., & Caputo, G. C. (1989). Patient perception of involvement in medical care. *Journal of General Internal Medicine*, *4*(6), 506–511. doi: 10.1007/bf02599549
- ²¹ Lerman, C. E., Brody, D. S., Caputo, G. C., Smith, D. G., Lazaro, C. G., & Wolfson, H. G. (1990). Patients' perceived involvement in care scale: *Journal of General Internal Medicine*, *5*(1), 29–33. doi: 10.1007/bf02602306
- ²² Pew Research Center Population Projections. (2008). Retrieved from https://www.pewresearch.org/hispanic/2008/02/11/ii-population-projections/



2019 COMMUNITY HEALTH NEEDS ASSESSMENT FOCUS GROUP COMMUNITY THEME 2: MENTAL HEALTH

Further Research

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Mental Health Stigma Still Keeping Community Members from Accessing Resources

Mental health plays an essential role in a person's well-being, strong relationships with family and others, and the ability to be a part of and give back to a community or society. According to Healthy People 2020, mental health is defined as "a state of successful performance of mental function, resulting in productive activities, fulfilling relationships with other people, and the ability to change and to cope with challenges." When exploring the link between mental health and physical health, mental illness including substance use increases the risk for many different physical health problems, including stroke, type-2 diabetes, and heart disease. These chronic conditions also make it more likely for a person to suffer from a mental illness. Mental illness is also among the most common causes of disability. Additionally, suicide was the 10th leading cause of death in the United States in 2017, and there were more than twice as many suicides as there were homicides. In Tennessee, suicide was also the 10th leading cause of death and the 2nd leading cause of death for Tennesseans aged 10-14 in 2016.

Background Literature

Although approximately half of adults in the United States suffer from a mental illness at some point during their lives, a significant number of these individuals do not receive mental healthcare. For example, one study found that only approximately 40% of individuals with a mental illness ever receive treatment. Furthermore, from 2003 to 2013 there was a nearly 10 percent decrease in the mean number of psychiatrists. This decrease was not seen in physicians overall and could help explain the lack of individuals receiving care. If this trend continues, access to mental health providers could continue to worsen.

It is estimated that 8.9 million adults in the United States live with co-occurring mental health and substance use disorders or COD. COD that is untreated or unidentified has been associated with increased difficulties with engaging and staying in treatment, developing a relationship with a healthcare provider, and maintaining treatment regimens. If an individual has untreated COD, their likelihood of medical illness, suicide, and early mortality increases. There are many barriers

to treating this group of people, but one major barrier is medical, mental, and substance use service providers being unable to recognize COD.⁹

A major barrier to mental healthcare access is the stigma that exists around mental illness and treatment. Stigma happens when "a group of individuals is devalued due to attributes deemed undesirable." Stigmatization can lead to individuals with mental illness having poorer physical health as well. People living with mental illness report barriers to receiving physical healthcare as well, including their symptoms not being taken seriously. Thus, they receive poorer quality of care when receiving physical healthcare. This can cause a delay in diagnosis and fewer treatment options. One way to address stigma is through peer-to-peer relationships and support for those who experience mental illness. An avenue for this is through online communities, especially for individuals in rural communities or those who do not feel comfortable discussing their mental illness in face-to-face support groups. In these online communities, they can learn from each other, share, and give support. 12

National and Local Data Trends

Approximately 1 in every 5 or 46.6 million adults experiences mental illness in a given year.¹³ For 13-18 year olds, approximately 1 in 5 or 21.4% experiences a severe mental disorder during their lives.¹⁴ Additionally, 1 in 25 Americans lives with a serious mental illness, such as schizophrenia, bipolar disorder, or major depression.¹⁵ In Tennessee, 1 in 5 or 20% of adults experience mental illness, with 4.4% of adults having a serious mental illness. Also, 10% of Tennessee high school students reported attempting suicide at least once in the past year.¹⁶ Adults in the United States reported 3.8 poor mental health days in the last 30 days while adults in Tennessee reported 4.4 poor mental health days and adults in Shelby County reported 4.6 poor mental health days.¹⁷

In the United States, there is approximately one mental healthcare provider for every 426 people. By 2025, a projection shows that there will be between 45,000 and 250,000 too few mental health providers to meet the needs of the population. In Shelby County, there is one mental health provider for every 2,229 people, and 13% of Shelby County residents felt that they needed mental health services in the last 12 months but did not receive it. In Shelby County residents felt that they

State and Local Efforts

However, there are national, state, and local efforts to address mental health. Nationally, in 2016, the United States Preventative Task Force (USPTF) updated their recommendations to include depression screening for all adult populations regardless of risk factors. One healthcare arena where this can be implemented is primary care settings.²⁰ Statewide efforts include the Tennessee Suicide Prevention Network, which holds meetings in Shelby County and provides trainings around the state. The Tennessee Department of Mental Health and Substance Abuse Services also operates a hotline for people who are having issues receiving mental health or substance use services. Locally, Shelby County has a 24/7 hotline called the Memphis Crisis Center where individuals can call for support when feeling depressed, suicidal, or in need of community resources. In addition, the National Alliance on Mental Illness (NAMI) has a Memphis chapter. This group provides family education and support, and it gives information on resources and referrals.

Within Methodist Le Bonheur Community Outreach, the Family Care Program and the Family Resilience Initiative (FRI) also work to connect clients with mental health services.

FRI is a multi-disciplinary collaboration that assesses for Adverse Childhood Experiences (ACEs) and Social Determinants of Health (SDH) and provides a wraparound services approach to build resiliency and prevent ACEs within a trauma-informed setting. Within the FRI program, children between the ages of 9 months to 5 years who have 1 or more ACE and/or answer positively to additional screening questions are eligible for free psychological services. For parents, FRI has developed partnerships with other mental health providers in the area and offers referrals to low-cost psychological services. The Family Care Program (FCP) of the Community HIV Network provides women, infants, children, and youth (including males aged 24 and younger) that are infected or affected with HIV with specialty medical and supportive services. Clients are given psychosocial assessment screening at FCP program intake, which assesses for SDH that affect health status. FCP provides funding to partnering agencies in the Memphis area for psychosocial support, mental health services, and outpatient drug treatment, at no cost to clients.

Implications for Healthcare

As discussed previously, one major implication for healthcare is the reduction in mental health providers, which could lead to an even greater lack of access to mental health services, especially for vulnerable individuals. Thus, the medical community and policy makers must address the shortage of mental health professionals, especially psychiatrists, in order to improve access to

mental healthcare services. Possible strategies could include establishing a loan forgiveness program for medical students who pursue psychiatry or integrating mental health care into primary care settings where the primary care physicians can prescribe the needed medications and non-physician mental health providers can aid in the other mental health treatment options.²¹

With the current and growing mental healthcare needs, it will also be important to provide training related to mental health care and substance use to all medical providers. More training should also be provided on how to work across continuums of care to address patients' complex medical, social, and behavioral health needs.²² This training will also help with the issue of access to services because more patients will feel comfortable receiving healthcare services if their providers are properly trained to work with certain populations.

References

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- ³ Mental Health and Mental Disorders. (2019). Retrieved from https://www.healthypeople.gov/2020/topics-objectives/topic/mental-health-and-mental-disorders
- ⁴ Mental Health by the Numbers. (2019). Retrieved from https://www.nami.org/learn-more/mental-health-by-the-numbers
- ⁵ Henderson, N. (2018). Health brief: Mental illness. Retrieved from https://bettertennessee.com/mental-illness-tennessee/
- ⁶ Bishop, T. F., Seirup, J. K., Pincus, H. A., & Ross, J. S. (2016). Population of US practicing psychiatrists declined, 2003-2013, which may help explain poor access to mental health care. *Health Affairs*, *35*(7), 1271-1277.
- ⁷ Wang et al. (2005). Twelve-month use of mental health services in the United States: Results from the national comorbidity survey replication. *Archives of General Psychiatry*, *62*(6), 629-640.
- ⁸ Bishop, T. F., Seirup, J. K., Pincus, H. A., & Ross, J. S. (2016). Population of US practicing psychiatrists declined, 2003-2013, which may help explain poor access to mental health care. *Health Affairs*, *35*(7), 1271-1277.
- ⁹ Priester, M. et al. (2016). Treatment access barriers and disparities among individuals with cooccurring mental health and substance use disorders: An integrative literature review. *Journal of Substance Abuse Treatment*, 61, 47-59.
- ¹⁰ Budhwani, H. & De, P. (2019). Perceived stigma in health care settings and the physical and mental health of people of color in the United States. *Health Equity*, *3.1*, 73-80.
- ¹¹ Knaak, S., Mantler, E., & Szeto, A. (2017). Mental illness-related stigma in healthcare: Barriers to access and care and evidence-based solutions. *Healthcare Management Forum*, *30*(2), 111-116.

¹ Mental Health and Mental Disorders. (2019). Retrieved from https://www.healthypeople.gov/2020/topics-objectives/topic/mental-health-and-mental-disorders

² Centers for Disease Control and Prevention. (2018). Learn about mental health. Retrieved from https://www.cdc.gov/mentalhealth/learn/index.htm

- ¹² Naslund, J. A., Aschbrenner, K. A., Marsch, L. A., & Bartels, S. J. (2016). The future of mental health care: Peer-to-peer support and social media. *Epidemiology and Psychiatric Sciences*, *25*(2), 113-122.
- ¹³ Mental Health by the Numbers. (2019). Retrieved from https://www.nami.org/learn-more/mental-health-by-the-numbers
- ¹⁴ Mental Health by the Numbers. (2019). Retrieved from https://www.nami.org/learn-more/mental-health-by-the-numbers
- ¹⁵ Substance Abuse and Mental Health Services Administration. (2017). Key substance use and mental health indicators in the United States: Results from the 2016 National Survey on Drug Use and Health (HHS Publication No. SMA 17-5044, NSDUH Series H-52). Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. Retrieved from https://www.samhsa.gov/data/
- ¹⁶ Henderson, N. (2018). Health brief: Mental illness. Retrieved from https://bettertennessee.com/mental-illness-tennessee/
- ¹⁷ County health rankings and roadmaps: Tennessee. (2017). Retrieved from https://www.countyhealthrankings.org/app/tennessee/2019/rankings/shelby/county/factors/overall/snapshot
- ¹⁸ United Health Foundation. (2019). Public health impact: Mental health providers. Retrieved from https://www.americashealthrankings.org/explore/annual/measure/MHP/state/ALL
- ¹⁹ Brantley, A. (2018). Memphis and Shelby County health brief. Retrieved from https://bettertennessee.com/memphis-shelby-county-health-brief/
- ²⁰ Siu, A. & US Preventative Services Task Force. (2016). Screening for depression in adults: US Preventative Services Task Force recommendation statement. *Journal of American Medical Association*, *315*(4), 380-387.
- ²¹ Bishop, T. F., Seirup, J. K., Pincus, H. A., & Ross, J. S. (2016). Population of US practicing psychiatrists declined, 2003-2013, which may help explain poor access to mental health care. *Health Affairs*, *35*(7), 1271-1277.
- ²² Knickerman, J., Krishnan, R., & Pincus, H. (2016). Improving access to effective care for people with mental health and substance use disorders. *Journal of American Medical Association*, *316*(16), 1647-1648.



2019 COMMUNITY HEALTH NEEDS ASSESSMENT FOCUS GROUP COMMUNITY THEME 3: UNDERINSURED / UNINSURED

Further Research

Uninsured / Underinsured

Introduction

Health insurance consists of any program that covers all or part of an individual's medical expenses for prevention services, injury, and acute or chronic illness. Health insurance can be obtained in many forms, including privately purchased insurance (e.g. through an employer or directly from an insurance company) and government-funded insurance, such as Medicare or Medicaid. Issues related to health insurance – including not having insurance, difficulty navigating or understanding one's health insurance plan, insurance not covering specific conditions, and being underinsured – arose frequently as a barrier to care during the 2019 Community Health Needs Assessment's focus groups and community survey.

Health Insurance in the United States

In 2017, the Census Bureau estimated that there were roughly 28.5 million people (8.8% of the total population) in the United States who did not have health insurance at any point during the year¹. Just over 5% of children under age 19 were uninsured, but that number rises to nearly 8% for children living in poverty¹. The uninsured rate also disproportionately affects people of color, both nationally and locally, as the uninsured rate was highest for Hispanics (16.3% nationally versus 25% or above in Tennessee), followed by African Americans (10.6% nationally, 10.1 to 15% in Tennessee) and Asians (10.6%)^{1,2}. Between 2016 and 2017, the percentage of people without health insurance coverage increased in 14 states. In Tennessee, the Census Bureau estimated that about 9.5% of the population is uninsured, slightly higher than the national average (8.8%). Uninsured rates in Shelby County are even higher than the state and national averages, estimated to be between 10.1 to 17 percent for individuals over 18^{3,4}. The number of uninsured in Tennessee increases further when looking at the low-income population, rising to 20.1 to 25% for adults living at or below 138% of the poverty line³.

Despite these high uninsured rates, the total number of uninsured individuals has dropped significantly from 2008 to 2017; both nationally and within Tennessee (from 15% to 9% nationally and 14% to 9.5% in Tennessee)^{5,6}. This is largely due to the policy changes introduced by the Affordable Care Act, which allowed dependents to remain on their parents' insurance up to age 26 and expanded Medicaid eligibility across multiple states⁷. Unfortunately, Tennessee has yet to accept any kind of federal Medicaid expansion. As of July 2018, Tennessee had

1,371,010 people covered by Medicaid/CHIP. If Tennessee accepted expansion, they could provide an estimated 381,000 additional people with health insurance⁸.

However, even with increased insurance options, the cost of insurance itself remains a significant barrier to health care. In 2018, the average annual premium for employer-sponsored health insurance was \$6,896 for single-person coverage and \$19,616 for family coverage (coverage that include spouse and children)⁹. This reflects a 3% increase from 2017 to 2018 for single coverage, and 5% increase for family coverage; however, workers' wages only increased 2.6% in the same time period (inflation increased 2.5%)⁹. The average annual dollar amounts contributed by covered workers for 2018 were \$1,186 for single coverage and \$5,547 for family coverage. Overall, the national average dollar contribution for family coverage has increased 21% since 2013, and 65% since 2008⁹. Furthermore, in addition to paying for insurance itself, there is still the additional financial burden of deductibles, copays, etc. that arises when insured individuals utilize their insurance. Health insurance deductibles alone have increased an average of 53% in the past five years, further adding to this financial burden⁹. In 2017, 45% of uninsured adults said that they remained uninsured because the costs of insurance were too high¹⁰.

Local Efforts to Address

Despite their refusal to expand Medicaid, as of May 2019, Tennessee is seeking federal permission to convert their state federal Medicaid matching funds into a block grant that will be indexed for inflation and population growth, allowing more control over how the state's funding is used. However, there are concerns that this model might result in a funding shortage for the state in the event of a recession⁸.

In 2019, Methodist Le Bonheur increased the threshold for financial insurance eligibility from 125% of the federal poverty to 250%, which will allow a greater number of people to receive assistance¹¹. Additionally, there are multiple Methodist Le Bonheur Community Outreach programs that offer assistance with healthcare navigation and prevention, including helping clients with chronic illnesses understand their diagnoses and stay in care (HIV Network, Congregational Health Network), encouraging new parents to keep up with regular well-child visits (Nurse-Family Partnership, Healthy Families America), and offering resource navigation and no-cost psychological services to children under the age of five (Family Resilience Initiative). Additionally, the Church Health Center (CHC), a local faith-based nonprofit organization, offers an affordable healthcare plan for small businesses and/or uninsured working Memphians who earn too much to qualify for state or federal programs but not enough to afford health insurance

on the healthcare marketplace. CHC sustains this low-cost model by relying on donated services from doctors, hospitals, and laboratories¹².

Implications for Healthcare

The implications of having such a large uninsured and underinsured population are huge for healthcare providers. In 2017, one in five uninsured adults went without needed healthcare due to cost¹⁰. Yet as this population delays or forgoes health services, the financial burden rises, both for healthcare providers and the individuals. In a 2017 review of the effects of health insurance on health care and outcomes, Sommers, Gawande, and Baicker found that having health insurance led to a reduction of medical bills sent to collections, reduced catastrophic medical spending, and reduced personal bankruptcies and improved credit scores¹³. Health insurance also led to increased rates of individuals having a personal physician, an increase in preventative care visits, and increased prescription drug utilization and adherence. Finally, the authors found that health insurance led to increased diagnoses and treatment of chronic conditions, improved depression outcomes, and overall improved reported self-health¹³.

If individuals are uninsured, they are less likely to receive preventative care and services for health issues and chronic illnesses¹⁰. As a result of delaying needed medical care, when this population does finally seek help, the issue is often much more complex (and expensive), adding an additional – and often insurmountable – health and financial burden. Going without health insurance increases the likelihood of preventable illnesses, increases the chance of complications, and can even lead to death¹³. In a 2017 review of multiple studies, Woolhandler and Himmelstein found that mortality odds among insured versus uninsured to be 0.71 to 0.97 – almost a 37% increase¹⁴. News outlets are constantly reporting stories of individuals dying – or even committing suicide – due to exorbitant medical bills or being unable to affordable essential medications^{15,16}. This is not an easily fixable problem, but it is one that must be addressed to improve the health and well-being of our nation, state, and county.

References

- ¹ US Census Bureau. (2019, April 16). Health Insurance Coverage in the United States: 2017. Retrieved from https://www.census.gov/library/publications/2018/demo/p60-264.html
- ²Health Insurance Coverage Estimates [Map]. (2019). In U.S. Census Bureau. Retrieved from https://www.census.gov/content/dam/Census/library/visualizations/2019/demo/p30-05/web map3.pdf
- ³US Census Bureau. (2018, September 12). Uninsured Rate by State: 2008 to 2017. Retrieved from https://www.census.gov/library/visualizations/interactive/uninsured-rate.html
- ⁴Data USA. (n.d.). Shelby County, TN. Retrieved from https://datausa.io/profile/geo/shelby-county-tn#economy
- ⁵Kaiser Family Foundation. (2019, January 02). Health Insurance Coverage of the Total Population. Retrieved from https://www.kff.org/other/state-indicator/total-population/
- ⁶U.S. Census Bureau. (2018). U.S. Census Bureau QuickFacts: Memphis City, Tennessee.

 Retrieved from

 https://www.census.gov/quickfacts/fact/table/memphiscitytennessee/PST045218
- ⁷Berchick, E. R., Hood, E., & Barnett, J. (2018, September). *Health Insurance Coverage in the United States* (Rep.). Retrieved https://www.census.gov/content/dam/Census/library/publications/2018/demo/p60-264.pdf
- ⁸Tennessee and the ACA's Medicaid expansion: Eligibility, enrollment and benefits. (2019, May 24). Retrieved from https://www.healthinsurance.org/tennessee-medicaid/
- ⁹Kaiser Family Foundation. (2018, October). 2018 Employer Health Benefits Survey Summary of Findings. Retrieved from https://www.kff.org/report-section/2018-employer-health-benefits-survey-summary-of-findings/
- ¹⁰Kaiser Family Foundation. (2018). Key Facts about the Uninsured Population. Retrieved from https://www.kff.org/uninsured/fact-sheet/key-facts-about-the-uninsured-population/
- ¹¹Methodist Le Bonheur Healthcare. (2019, July 30). *Methodist Le Bonheur Healthcare Announces Two New Initiatives to Help Address Poverty and Uplift Their Associates, Patients, and the Community* [Press release]. Retrieved from https://www.methodisthealth.org/newsroom/news-article/methodist-le-bonheur-

- healthcare-announces-two-new-initiatives-to-help-address-poverty-and-uplift-their-associates-patients-and-the-community
- ¹²Church Health Center. (2019, February 15). The MEMPHIS Plan: Church Health's Health Plan for Small Businesses. Retrieved from https://churchhealth.org/memphisplan/
- ¹³Sommers, B., Gawande, A., & Baicker, K. (2017). Health insurance coverage and health What the recent evidence tells us. *New England Journal of Medicine, 377*(6). doi:0.1056/NEJMsb1706645
- ¹⁴Woolhandler, S., & Himmelstein, D. U. (2017). The relationship of health insurance and mortality: Is lack of insurance deadly? *Annals of Internal Medicine*, *167*(6), 424. doi:10.7326/m17-1403
- ¹⁵O'Kane, C. (2019, August 9). Elderly couple found dead in apparent murder-suicide, left notes about high medical bills. *CBS News*. Retrieved from https://www.cbsnews.com/news/elderly-couple-found-dead-in-apparent-murder-suicide-left-notes-about-high-medical-bills/
- ¹⁶Stanley, T. (2019, January 07). Life, death, and insulin. *The Washington Post Magazine*. Retrieved from https://www.washingtonpost.com/news/magazine/wp/2019/01/07/feature/insulin-is-a-lifesaving-drug-but-it-has-become-intolerably-expensive-and-the-consequences-can-betragic/



2019 COMMUNITY HEALTH NEEDS ASSESSMENT FOCUS GROUP COMMUNITY THEME 4: KNOWLEDGE OF RESOURCES COMMUNITY

Further Research

Patients' Knowledge of Resources

Introduction

It has been said that "knowledge is power," but a person has to first attain knowledge in order to build a sense of empowerment, thereby using that knowledge in a manner that benefits themselves and others. In regards to the healthcare system, the possession of health knowledge or information requires health equity. The American Public Health Association (APHA) defines health equity as the condition where "everyone has the opportunity to attain their high level of health¹," and many health care organizations incorporate this condition within their mission, vision and/or values. Nevertheless, the presence of health disparities, (differences in health that are closely linked with social, economic, and/or environmental disadvantage¹), and health inequities, (the uneven distributions of social and economic resources that impact an individual's health¹), serve as hindrances to health equity, especially concerning access to health information among certain populations. There is need for health care organizations to effectively utilize methods that better fill-in the gaps and improve the health communication delivery among individuals and groups in need of medical resources and services. Proficient development and application of various methods within health communication among health care providers and organizations is a proactive approach which increases the presence of health equity via service linkage among those people who need resources most.

Background Literature

Both quantitative and qualitative research within health care currently display that there are disparities concerning the deployment of Health Communication and Health Information Technology (IT) to increase the health resource utilization in particular populations within the health care setting. The Office of the National Coordinator for Health Information Technology created a report and dashboard in 2016 to display how there is decreased offering and access of Health IT among underserved individuals. Findings demonstrated that individuals with lower incomes, less education, and who had difficulty speaking English had significantly lower rates of being offered online access to their health information and medical records². In addition to Health IT offerings, it was shown that these same populations use certain types of Health IT for health-related needs, (e.g., email provider, look at test results, text message healthcare provider,

use a mobile health application), at significantly lower rates compared to those individuals with more education².

In response to the health research concerning Health Communication and Health IT, various national, state and local health agencies have embarked upon initiatives that increase health resource utilization among patients^{3,4}. However, sole focus on Health Communication via Health IT is not an adequate approach for health care providers when it comes to Health Communication delivery via technology. Studies indicate that despite high prevalence of IT within the nation, patients still perceive health care providers as the most influential source when obtaining health information and/or making a medical decision^{5,6}. Thus, these collection of studies reveal that there must be an emphasis to have a diverse approach to increase health literacy among all individuals.

National/Local Data Trends

One of the most renowned health efforts to improve health outcomes among all citizens, especially those with health disparities, is the Healthy People 2020 health initiative. Within this initiative is the health topic of *Health Communication and Health Information Technology* (*HC/HIT*), which exhibits the specific goal to "use health communication strategies and health information technology to improve population health outcomes and health care quality, and to achieve health equity⁷." While there are many objectives regarding this topic, HC/HIT Objective-intensely looks the outcomes measures which indicate the quality of HC/HIT at both personal and technological sides of communication. Table 1.A demonstrates how HP 2020 encourages health care providers and health agencies to use comprehensive methods to meet the communication needs of patients in order to produce positive health outcome. To view specific HC/HIT objective, sub-categories, current trends and projected outcome measures (baseline and target values) visit www.healthypeople.gov.

Table 1.A: Healthy People 2020 Health Communication/ Health Information Technology (HC/HIT) Objectives

| Objective Number | Objective description (and sub-objectives, if applicable) | Data Source(s) |
|---------------------|---|---|
| HC/HIT-1 | 1 – Improve the health literacy of the population 1.1 – Increase the proportion of persons who report their health care provider always gave them easy-to-understand instructions about what to do to take care of their illness or health condition 1.2 – Increase the proportion of persons who report their health care provider always asked them to describe how they will follow the instructions 1.3 – Increase the proportion of persons who report their health care providers' office always offered help in filling out a form | Medical Expenditure Panel Survey (MEPS), AHRQ |
| HC/HIT-2 | 2 – Increase the proportion of persons who report that their health care providers have satisfactory communication skills 2.1 – Increase the proportion of persons who report that their health care providers always listened carefully to them 2.2 – Increase the proportion of persons who report that their health care providers always explained things so they could understand them 2.3 – Increase the proportion of persons who report that their health care providers always showed respect for what they had to say | Medical Expenditure Panel Survey (MEPS), AHRQ |
| HC/HIT-3 | 2.4 – Increase the proportion of persons who report that their health care providers always spent enough time with them 3 – Increase the proportion of persons who report that their health care providers always involved them in decisions about their health care as much as they wanted | Health Information National Trends Survey (HINTS), NIH/NCI |
| HC/HIT-4 | 4 – (Developmental) Increase the proportion of patients whose doctor recommends personalized health information resources to help them manage their health 5 – Increase the proportion of persons who use electronic | To be determined |
| 110/1111-3 | personal health management tools 5.1 – Increase the proportion of persons who use the Internet to keep track of personal health information, such | Health Information National Trends |

| нс/ніт-6 | as care received, test results, or upcoming medical appointments 5.2 – Increase the proportion of persons who use the Internet to communicate with their health provider 6 – Increase individuals' access to the Internet | Survey (HINTS), NIH/NCI |
|---------------|---|--|
| | 6.1 – Increase the proportion of persons with access to the Internet 6.2 – Increase the proportion of persons with broadband access to the Internet 6.3 – Increase the proportion of persons who use mobile devices | Health Information National Trends Survey (HINTS), NIH/NCI |
| HC/HIT-7 | 7 – Increase the proportion of adults who report having friends or family members with whom they talk about their health | Health Information National Trends Survey (HINTS), NIH/NCI |
| HC/HIT-8 | 8 – Increase the proportion of quality, health-related websites 8.1 – Increase the proportion of health-related websites that meet three or more evaluation criteria for disclosing information that can be used to assess information reliability 8.2 – Increase the proportion of health-related websites | National Quality Health Website Survey, ODPHP |
| НС/НІТ-9 | that follow established usability principles 9 – Increase the proportion of online health information seekers who report easily accessing health information | Health Information National Trends Survey (HINTS), NIH/NCI |
| HC/HIT- 10 | 10 – Increase the proportion of medical practices that use electronic health records | National Ambulatory Medical Care Survey – Electronic Health Records Surveys (NAMCS-HER), CDC/NCHS |
| HC/HIT- 11 | (Developmental) Increase the proportion of meaningful users of health information technology (HIT) | Archived |
| HC/HIT- 12 | 12 – Increase the proportion of crisis and emergency risk messages intended to protect the public's health that demonstrate the use of best practices (Sub-objectives on website) | CDC Crisis and Emergency Risk Communication Best Practices Study, CDC/OADC |
| HC/HIT- 13 | 13 – Increase social marketing in health promotion and disease prevention (Sub-objectives on website) | To be determined |

Local Efforts to Address

In the state of Tennessee various health organizations are rallying to the call to enhance health communication delivery to all Tennesseans. Regarding governmental efforts, within its 2012-2018 Community Health Improvement Plan (CHIP) report, the Shelby County Health Department (SCHD) states that it is in the initial stages to ensure more populations access health resources online⁸. In the non-profit health care sector, the Community Outreach Division of the Methodist Le Bonheur Healthcare (MLH) system has implemented several programs which improve health communications among patients, where health care providers and staff take intentional measures to specifically increase the awareness and utilization of patients' knowledge regarding health information and services. The Family Resource Initiative (FRI) is a program which makes the most use of wait-time within the pediatrician's office. During a child's doctor appointment, FRI staff conduct assessments with parents to learn of clients' medical/social needs and to increase parents' awareness and utilization of medical and social resources available for their child. To ensure that both medical and social services staff are delivered with the same quality and quantity of health information, FRI creates a collaboration with physicians and other health community partners to educate all staff on local and state resources available to FRI patients.

Programs taking place outside the walls of MLH clinics are the programs of Wellness Without Walls (WOW), the Congregational Health Network (CHN), and the HIV Network. WOW is a program which takes place within a specific neighborhood's community health center, where drastic health disparities exist among residents. The purpose of WOW is to conduct health screenings to alert residents of their health status and to provide information for resource linkage. The CHN program focuses on improving health information and education within the faith-based community by the outreach and education among various congregations. Within the congregations, CHN staff educate Liaisons, designated congregants who are trained by CHN staff to serve as a church's contact to community partners and health resources; within this role the Liaisons spread and obtain health communication in a culturally sensitive manner for the congregation (e.g., educational seminars, presentations, etc.). Another program, playing a role both within and outside the clinical setting, is the HIV Network, a program which educates and benefits people living with HIV. Through the deployment of Community Health Workers (CHWs), the HIV Network provides information and increases knowledge of health resources and HIV education among patients, while assisting patients to address health barriers which prevent them from staying within the continuum of care.

Implications to Healthcare

As MLH and its community partners conducted the 2019 Community Health Needs Assessment (CHNA), there was a constant finding that residents of Shelby County are less familiar with community health/medical/social resources and that informational gaps of current resources exist. Thus, in order to improve health outcome gaps among populations with health disparities, health communication has to be personalized to meet a population where they are in concerns to health needs. While the methods of spreading health communication vary, there first must be the occurrence to listen to patients and their families to understand which methods will prove to be culturally sensitive and utilized to in order to increase patients' knowledge of resources, access to services, and level of health literacy. Health communication must expand beyond HIT and be comprehensive in approach via the use health fairs, health education classes, partnership collaborations/coalitions, health community workers/navigators, and the like to enable patients to attain the knowledge. This personalized method creates an integrative approach to care, addressing the health needs and concerns of patients while they are within and outside the clinical setting. In addition to this approach, health care providers and organizations address social determinants of health (SDOH) (i.e. education, social support, access to health care, quality of health care) and foster sustainable progress toward filling in the health equity gap, especially concerning the issue of patients'/clients' awareness of resources, and patients taking a proactive role to learn about health care resources.

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References

- American Public Health Association. (2019). Creating the healthiest nation: Advancing health equity. Retrieved from https://apha.org/-/media/files/pdf/factsheets/advancing health equity.ashx?la=en&hash=9144021FDA33B4E 7E02447CB28CA3F9D4BE5EF18
- 2. Patel, V., Barker, W., Siminerio, E. (February 2016). Disparities of individuals' access and use of health information technology in 2014. ONC Data Brief, No. 34. Office of the National Coordination for Health Information Technology: Washington DC. Retrieved from https://dashboard.healthit.gov/evaluations/data-briefs/disparities-individuals-access-use-health-information-technology.php.
- 3. Gibbons, M.C., (2011). Use of health information technology among racial and ethnic underserved communities. *Perspectives in Health Information Management*, 8, 1f.
- 4. Broderick, A., & Haque, F. (May 2015). Mobile health and patient engagement in the safety net: A survey of community health centers and clinics. Retrieved from https://www.commonwealthfund.org/sites/default/files/documents/ media files publica tions issue brief 2015 may 1813 broderick mobile hlt patient engagement ib.pdf
- 5. Fox, S., and Duggan, M. (2013). Health Online 2013, Pew Internet & American Life Project; January 15, 2013. Retrieved from https://www.pewinternet.org/2013/01/15/health-online-2013/
- 6. Couper, M. P., Singer, E., Levin, C. A. et al. (2010). Use of the Internet and ratings of information sources for medical decisions: Results from the DECISIONS survey. *Med Desis Making*, 30(5 Suppl), 106S-114S.
- 7. Healthy People 2020. (2019). Health Communication and Health Information Technology. Retrieved from https://www.healthypeople.gov/2020/topics-objectives/topic/health-communication-and-health-information-technology
- Shelby County Health Department. (2015). Community Health Improvement Plan, 2012-2018. Retrieved from https://www.shelbycountytn.gov/DocumentCenter/View/22145/CHIP_FINAL_20150917_FINAL?bidId=



2019 COMMUNITY HEALTH NEEDS ASSESSMENT FOCUS GROUP COMMUNITY THEME 5: POVERTY AND HEALTH

Further Research

Poverty and Health

Introduction

Poverty impacts health by influencing both an individual's health conditions and the ability to access medical care. Poor health, in turn, can limit economic productivity, bankrupt households, and impoverish families¹. Families and persons are classified as living in poverty if their total family income or unrelated individual income is less than the poverty threshold, which is the specified dollar amount considered to be the minimum level of resources necessary to meet the basic needs of a family unit. Poverty worsens health by limiting opportunities for quality housing, safe neighborhoods, healthy food, living wage jobs, and quality education, while increasing stress ². Additionally, poverty creates barriers to access including health services, healthy food, and other necessities that contribute to poor health status. With 31% of people below the poverty level being uninsured, they are less likely to receive new drugs and technologies, and have ready access to primary and specialty care³,⁴. Under the burden of medical copayments and premiums, even with federal and state health coverage programs like Medicaid, low-income individuals must decide whether to go to the doctor, fulfill prescriptions, or pay for other basic needs^{4,5}.

The risk of poverty and the burden of income inequality on health in the U. S. are borne more by African-Americans and children. There are many reasons for racial health disparities between Black Americans and White Americans, but the literature suggests that a central role is played by chronic financial hardship caused by centuries of exploitation and segregation, as well as the direct toxic effects of discrimination on mental and physical health³. In the United States, children who experience poverty, particularly during early life or for an extended period, are profoundly affected by specific circumstances, such as birth weight, infant mortality, language development, chronic illness, environmental exposure, nutrition, and injury^{6,7}. Without interventions to mitigate the inequalities in income, we might see the further widening and hardening of socioeconomic disparities in health⁸.

National and Local Trends

Over 13% of the United States population currently live in poverty, which has led to detrimental health effects, such as higher rates of chronic diseases, communicable illnesses, health risk behaviors, and premature mortality⁹. Child poverty is greater in the United States than in most countries with comparable resources, as evidenced by a 2014 report from the Organization for Economic Cooperation and Development that ranked the United States 35th of 40 nations, only above Chile, Mexico, Romania, Turkey, and Israel⁷.

Poverty, and its influence on health, is particularly poignant in the southern region of the United States. Data on poverty and health in Tennessee exemplify this overwhelming impact in the south. By 2017, in Shelby County, 20.82% or 191,520 people, and 33.94% or 79,657 children aged 0-17 are living in households with income below the Federal Poverty Level (FPL). Memphis, the Shelby County seat, ranked 2nd in overall and childhood poverty among Metropolitan Statistical Areas (MSAs) with one million people at 17.1% and 27.1% respectively in 2017¹⁰. African Americans and Hispanics are the segments of the population most impacted by poverty, and the African American population of Memphis is nearly 64%, impacting the African American population to a greater extent than the White population.

State, Local Efforts to Address the Impact of Poverty on Health

Early Periodic Screening, Diagnosis and Treatment, or EPSDT, is a program of free checkups and health care services for children from birth until age 21 to detect and treat health problems, and is utilized as state-wide initiative to address access to health care among this economically vulnerable population. In Tennessee, the EPSDT program covered by TennCare and is called TennCare Kids. It provides a way for children to get medical exams, checkups, follow-up treatment, and special care they need to make sure they enjoy the benefits of good health Programs designed for the pediatric medical home provide opportunities for low-cost, population-based preventive intervention with low income families⁶.

Methodist Le Bonheur Healthcare, through their Division of Community Outreach, has implemented early intervention home programs targeting families in poverty. Nurse-Family Partnership is an evidence-based, nurse home visitation program that improves the health, well-being and economic self-sufficiency of first-time parents and their children. Specially trained nurses visit low-income mothers in their homes through their first pregnancy and the first two years of their child's life, with outcomes represented by a reduction in the number of reported incidents of child abuse and neglect among families, a reduction in the number of subsequent

pregnancies; and reduced criminal activity engaged in by mothers. Healthy Families America (HFA) is a home visitation service for low income mothers, following children from birth through the age of 5 years. The program follows the nationally recognized Healthy Families America Model which centers on visits conducted by Community Health Workers aimed at promoting positive parent-child relationships and healthy attachment.

There are other MLCO initiatives, assisting both minority patients and families to address the challenges of poverty. Memphis CHiLD, a first of its kind medical-legal partnership, including The University of Memphis Cecil C. Humphreys School of Law, Memphis Area Legal Services, University of Tennessee Center for Health Sciences-Department of Pediatrics and Le Bonheur Children's Hospital, focuses on identifying the legal and social issues that impact patient health and provides means to address these issues through direct legal services, education and advocacy for children and their families. Between 2017 and 2018, 18 SSI/TennCare families have been awarded \$10,264.97 in monthly benefits ranging from \$204.96-\$750 per family. Clients have been awarded \$156.775.66 in back payment. Two families (\$32,001 and \$14,220) saved \$46,221 that they would have owed if they lost their cases. In one HIV Network program, for 2019, 42 HIV+ patients were referred to local employment/job training organizations. Through referrals to programs like WIN (Workforce Investment Network), Hope Works, and Seedco, eight low-income patients secured jobs (part-time and fulltime) with companies such as: FedEx, Nike, Phillips Security, Autozone Park/Redbirds, Honey Baked Ham, St. Clair and Holiday Inn and Sheraton. Also, patients attended job fairs throughout Shelby County and Mississippi/ MDES (Mississippi Dept. of Employment Security).

Implications to Healthcare

Social determinants of health are conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.¹¹. Socioeconomic conditions underlie many health inequalities and compel attention to policies addressing social determinants of health¹². The socioeconomic condition of poverty, for example, may impact the health and health care determinant areas, and as such, this determinant area may benefit from actions to reduce the impact of poverty.

Health care institutions, themselves, have the potential to be a point of connection for low income families to learn about opportunities for assistance with food or energy bills, within the medical setting¹³. Mitigating the negative effects of poverty on children and supporting the efforts of families to lift themselves out of poverty, necessitates that health providers adopt

effective methods to identify poverty-related social determinants of health and provide effective interventions to address those⁷. Local identification and intervention efforts such as: EPSDT, childhood screening programs, partnerships to maintain community intervention resource directories, Medical-Legal Partnership programs, and home visiting programs, may help address health disparities related to poverty. Given that medical spending can drain government resources for spending on other social services, and reduce the income of the poorest segment of the U.S. population, health providers who care about the effect of the social determinants of health must also pay attention to the cost (and opportunity cost) of health care.

References

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- ¹ Bor, J., Cohen, G. H., & Galea, S. (2017). Population health in an era of rising income inequality: USA, 1980–2015. Lancet, 389, 1475–90.
- 2 University of Wisconsin Population Health Institute. . (2019). County Health Rankings State Report .
- ³ Health Affairs Health Policy Brief. (2018, October 4). Health, Income, And Poverty: Where We Are And What Could Help,. doi:10.1377/hpb20180817.901935.
- ⁴ Woolf, S. H., Johnson, R. E., & Geiger, H. J. (2006, October). The Rising Prevalence of Severe Poverty in America. American Journal of Preventive Medicine, 33(4), 332-341.e2. doi:10.1016/j.amepre.2006.06.022
- ⁵ Office Of The Assistant Secretary For Planning And Evaluation. (07/16/2015). Financial Condition and Health Care Burdens of People In Deep Poverty. U.S. Department of Health & Human Services.
- ⁶ COUNCIL ON COMMUNITY. Poverty and Child Health in the United States. Pediatrics, 137. doi:10.1542/peds.2016-0339
- ⁷ Fierman, A. H., & et al. (2016). Redesigning Health Care Practices to Address Childhood Poverty. Academic Pediatrics, 16(3), S136 S146. doi:10.1016/j.acap.2016.01.004
- ⁸ Richard, L., Himmelstein, D., & Woolhandler, S. (2017, April 8–14). Advocates for an Equitable US Health System. The Lancet, 389(10077), 1389.
- ⁹ Price, J. H., Khubchandani, J., & Webb, F. J. (2018). Poverty and Health Disparities: What Can Public Health Professionals Do? Health Promotion Practice, 19(2), 170–174. doi:10.1177/1524839918755143
- Delavega, E. (2018). 2018 Memphis Poverty Fact Sheet. Retrieved from the University of Memphis School of Social Work,:
 https://www.memphis.edu/socialwork/research/poverty-fact-sheets.php
- ¹¹ Healthy People 2020. (n.d.). Healthy People 2020. Retrieved August 6, 2019, from Social Determinants of Health: https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health
- ¹² Adler, N. E., Glymour, M. M., & Fielding, J. (2016). Addressing Social Determinants of Health and Health Inequalities. JAMA, 316(16), 1641–1642. doi:10.1001/jama.2016.14058

¹³ Sharfstein, J. M. (2014). Health Care and Poverty. JAMA, 312(21), 2200–2201. doi:10.1001/jama.2014.14532