



COMMUNITY HEALTH NEEDS ASSESSMENT 2022

Approved by Memorial Health System's Board of Trustees
September 26, 2022



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EXECUTIVE SUMMARY

The purpose of this Community Health Needs Assessment (CHNA) report is to provide Memorial Health System with a functioning tool to guide the system as it continues to work to improve the health of the community it serves.

The Affordable Care Act (ACA), enacted March 23, 2010, requires all 501(c)(3) hospitals to conduct a CHNA every three years in order to maintain their tax-exempt status. The Act also requires 501(c)(3) hospitals to adopt an implementation strategy that targets the identified health needs in the assessment. This report meets the guidelines of the Internal Revenue Service.

Individual accountability for healthcare has been an integral part of the ACA. To help our community embrace such accountability, Memorial has implemented several care coordination programs. Since 2017, our patients have received medical educational programming through Emmi. These programs educate patients on their upcoming procedures and provide education after care is delivered. Care coordination also allows physicians and healthcare navigators to assist patients with necessary lab monitoring, follow ups with healthcare providers and other elements of their care.

Memorial is currently participating in an existing Accountable Care Organization (ACO) along with other organizations in the state of Mississippi. By joining the Myriad Health Alliance, we will be able to fill healthcare gaps in our patient population and work with these other healthcare organizations to minimize costs by providing patients the right care at the right time and provide integrated healthcare for the betterment of our patients in this state.

This Community Health Needs Assessment was performed, and the implementation strategies were created by the Community Health Needs Assessment Steering Committee with assistance from Carr, Riggs, & Ingram, LLC. The assessment was conducted June through August 2022. The results of the CHNA will guide the development of Memorial's efforts to collaborate with federal and state agencies, as well as, other health related entities, on community health improvement initiatives and implementation strategies. This is a report that may be used by many of the hospital's collaborative partners in the community. The main input was provided by previous patients, employees, and community representatives. An opportunity to offer input was made available to the entire community through word of mouth, social media, a focus group, and an online survey on Memorial's website homepage www.WeAreMemorial.com and Memorial's intranet homepage. Additional information came from public databases, reports, and publications by state and national agencies.

The implementation describes the programs and activities that will address these health priorities over the next three years. The CHNA report is available on the hospital's website www.WeAreMemorial.com, or a printed copy may be obtained from the hospital's administrative office.

We sincerely thank those who provided input for this assessment. We look forward to working closely with our community to help improve the overall health of those we serve.

Kent Nicaud
President/CEO
Memorial Health System

ABOUT THE HOSPITAL

Memorial Health System (MHS) is a public, not-for-profit medical system based in Gulfport, Mississippi, jointly owned by the City of Gulfport and Harrison County. On July 18, 1946, the Harrison County Board of Supervisors and the City of Gulfport adopted resolutions establishing Memorial Hospital at Gulfport. Now, more than 76 years later, MHS continues to fulfill its mission to heal, inspire and transform the health of our community. MHS is the second-largest employer in Harrison County, continually expanding facilities as well as adding new staff and equipment to keep pace with ever-changing technology.

Governed by a Board of Trustees, the MHS Pillars of Excellence include Community, People, Service, Stewardship, Quality and Safety. MHS is one of the most comprehensive healthcare systems in the state with three acute care hospitals – Memorial Gulfport, licensed for 303 beds; Memorial Stone County in Wiggins, Mississippi, licensed for 25 beds; an affiliation with Merit Health Biloxi, licensed for 153 beds; and more than 110 physician clinics throughout the Gulf Coast area.

MHS offers a state-designated Level II Trauma Center, a cancer center, two nursing centers, four outpatient surgery centers, and satellite diagnostic and rehabilitation centers. MHS has more than 5,000 employees, including a medical staff of more than 850 providers. The primary service area includes Harrison and Hancock County. Our secondary service area includes Jackson, Pearl River, Stone, George, and Greene counties.

MHS offers robust clinical programs, such as emergency medicine and obstetrics emergency medicine, cardiovascular services including open heart surgery and four cardiac catheterization labs, women and children services, orthopedic services, neurosciences, and oncology/hematology. MHS provides medical specialties unique to the Mississippi Gulf Coast which include a Level III Neonatal ICU and Mississippi's first nationally certified Primary Stroke Center. MHS offers 3D imaging and advanced surgical techniques, including multiple robotic-assisted specialty surgery systems.

MHS has formed strong bonds with other medical entities. These partnerships make it easier for patients to access experts, information, and resources to find care close to home. MHS has partnered with Encompass Health Rehabilitation Hospital, housed within Memorial Hospital Gulfport. Other partners include Gulf Coast Vascular Care, PT Solutions Physical Therapy, Merit Health Biloxi, and Select Specialty Hospital – a hospital within a hospital – located at Memorial Hospital Gulfport. This arrangement places patients near ancillary services.

In early 2021, MHS attained initial accreditation through the Accreditation Council for Graduate Medical Education (ACGME) to establish its first Graduate Medical Education (GME) program in Family Medicine. GME begins after medical students graduate from medical school with a Doctor of Medicine (MD) or Doctor of Osteopathic Medicine (DO). The mission of the Memorial Hospital Family Medicine program is to build healthier communities by improving care for the region's most vulnerable populations.

MHS is accredited by The Joint Commission, the Commission on Cancer, the College of American Pathologists, the American College of Radiology, URAC's Specialty Pharmacy Accreditation, Vascular Laboratory Accreditation, the Metabolic and Bariatric (Weight Loss) Surgery Accreditation and Quality Improvement Program (MBSAQIP), and the American Diabetes Association Education Recognition, and holds a Baby-Friendly Designation.

ABOUT THE FOUNDATION

Memorial Hospital Foundation

Memorial Hospital Foundation was established in 1986 as a 501(c)(3) non-profit organization with a vision to develop relationships and financial resources to support the needs of Memorial Hospital, its patients, and employees. The Foundation manages 26 funds that provide financial support for these needs.

In 2021, the Foundation:

- Provided patient assistance 8,869 times through medication purchases, gas cards, medical supplies, and other services.
- Funded 17 projects that improved patient experience and outcomes and provided support for staff.

Patient Impact:

The Foundation manages patient assistance funds to provide medication, medical supplies, transportation, and other assistance to Memorial's patients with the support of Memorial's Nurse Navigators and Social Services Department. We have highlighted a few of those funds:

Breast Imaging Fund

This fund provides financial assistance for women in our community who cannot afford breast diagnostic imaging services such as mammograms, breast ultrasounds and breast MRIs. In 2021, we funded 100 breast imaging services for our patients.

Cardiac Patient Fund

This fund provides financial support for Memorial's cardiology patients in need. In 2021, we paid for 861 medications, purchased 21 blood pressure monitors, and assisted with cost for an external defibrillator vest.

Emerging Needs Fund

This fund provides financial support for the unmet needs of Memorial Hospital. In 2021, it was used to create clothes closet for indigent patients that come through our Emergency Department.

Favre 4 Hope Fund

This fund provides financial support for underinsured patients who are receiving treatment for breast cancer at Memorial Hospital. In 2021, it purchased 3 treatments for our patients.

Lori A. Sneed Ostomy Fund

This fund assists Memorial's ostomy patients in need. In 2021, it was used to purchase medical supplies 14 times.

Neonatal Intensive Care Unit (NICU) Fund

Our NICU fund helps address the priorities or unmet needs of the NICU at Memorial. In 2021, it purchased 105 food vouchers and 72 gas cards for parents of NICU babies.

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Community Health Needs Assessment

Oncology Fund

This fund provides medication, transportation and nutritional assistance to patients who are receiving treatment for cancer through Memorial Hospital.

In 2021, it provided 4,040 medications, 853 gas cards, 432 Glucerna/Ensure shakes, snacks for infusion clinics, trach supplies, dentures, dental work, eye exam/glasses and lymphedema sleeves.

Pediatrics Fund

This fund helps address the priorities or unmet needs of the pediatrics department at Memorial Hospital.

In 2021, it purchased 1,380 burp cloths, 126 sleep sacks & 576 play packs for babies at Memorial.

Randall Speck Pediatric Special Needs Fund

This fund provides financial support for children whose families have a financial need. Examples of financial support are medications and medical equipment.

In 2021, it was used nine times to purchase medications/equipment for children in need.

Senior Services Fund

This fund provides financial support for unmet needs and priorities of Memorial's senior services.

In 2021, this fund purchased 280 Christmas stockings that were given to seniors at our senior living facilities.

Hospital Impact

The Foundation purchases equipment for various departments of Memorial Hospital that improves patient experience and outcomes as well as provides tools to assist our staff.

In 2021, the Foundation:

- Purchased a Bilirubinometer for Labor & Delivery
- Provided funds to renovate the Clinical Support Office
- Purchased new furniture for the inpatient oncology consult room
- Purchased 2 temperature scanners for the Emergency Department
- Purchased 4 temperature scanners for Senior Living facilities
- Purchased 5 care carts for Senior Living facilities
- Purchased a blanket warmer for the Stone County Emergency Department
- Purchased 2 wheelchairs for Escort Services



Figure 1 - Photo of entrance of hospital – Gulfport campus

Mission Statement

Memorial's mission is to heal, inspire, and transform the health of our community.

Vision Statement

Memorial's vision is to be the driving force that improves the health of our patients throughout their lifetime.

Values

- Integrity – We do what's right every day.
- Respect – We treat each other, and our patients like they matter.
- Excellence – We go above and beyond, providing quality care, with keeping safety in mind – always.
- Empathy – We don't just say WE CARE, we show it.

THE COMMUNITY HEALTH NEEDS ASSESSMENT

Background

The federal government under Section 501(r)(3)(A) requires that non-profit hospitals conduct a Community Health Needs Assessment (CHNA) once every three years. The full report must contain both an assessment of the community, and an implementation strategy to address the needs recognized in the assessment. There are specific guidelines and dates set forth by the IRS that the organization must follow that includes: “1) define the community served, 2) assess the health needs of that community, 3) solicit and take into account input received from persons who represent the broad interests of the community, 4) document the CHNA in a written report that is adopted for the hospital facility by an authorized body of the hospital facility, and 5) make the CHNA report widely available to the public”¹ including posting the board approved report to the hospital’s website by the fiscal year end of the year the report is due. Failure to comply with these guidelines could result in a fine by the IRS of \$50,000, and the possibility of losing the organization’s tax-exempt status. Based on these guidelines, Memorial Health System’s CHNA would be due to be completed and board approved by their fiscal year end of September 30, 2022.

Figure 2 - Social media post for vaccination event

Community Engagement

These collaborative studies help healthcare providers build stronger relationships with their communities, identify needs, and dedicate funding and other resources toward programs that clearly benefit residents. The Community Health Needs Assessment can also define opportunities for healthcare improvement, create a collaborative community environment to engage multiple change agents, and is an open and transparent process to listen and truly understand the health needs of the community served. It also provides an opportunity for the health system to identify valuable collaborative partners as we try to better serve the community and improve the health of our citizens. An example of our community engagement is through conducting community events at locations in the community such as our Community Vaccination Event held at the Isiah Fredericks Community Center in Gulfport.



¹ Internal Revenue Service. (2022, September 12) Community Health Needs Assessment for Charitable Hospital Organizations – Section 501(r)(3), Retrieved from IRS.gov: <https://www.irs.gov/charities-non-profits/community-health-needs-assessment-for-charitable-hospital-organizations-section-501r3>.



Figure 3 - Photo of social media announcement about MHS awards and accreditations

Transparency

We are pleased to share with our community the results of our Community Health Needs Assessment. The following pages offer a review of the community we serve, how we responded to specific health needs such as the COVID-19 pandemic, and our health initiatives for the next three years (Oct. 2022-Sept. 2025). We hope you will take time to review the health needs of our community as the findings impact each citizen of our Mississippi community. Hopefully, you will find ways you can personally improve your own health and contribute to creating a healthier community.

Data Collection

Primary and secondary data was gathered, reviewed, and analyzed so that the most accurate information was available in determining the community's health needs and appropriate implementation process.

Primary Data: collected by the assessment team directly from the community through conversations, interviews, community feedback; the most current information available.

Secondary Data: collected from sources outside the community and from sources other than the assessment team; information that has already been collected, collated, and analyzed; provides an accurate look at the overall status of the community.

RESPONSE TO HEALTH STRATEGIES FROM 2019 CHNA

Cancer Care:

According to the American Cancer Society, "More than one million people in the United States get cancer each year." Cancer is the second highest cause of death in both the primary and secondary service area of Memorial cumulatively from 2017-2020 per the Mississippi State Department of Health.

MHS is dedicated to identifying and meeting the needs of the community, the need for a Comprehensive Cancer Center was addressed. As a result, Memorial Cancer Center was developed. Memorial Cancer Center primarily serves cancer patients of Harrison County, Mississippi; many of the total patients seen coming from zip codes for Gulfport, Long Beach, Pass Christian and portions of west Biloxi, to the north end of the county line. Most of the remaining patients come from eastern Harrison County (Biloxi) into western Jackson County (Ocean Springs), eastern Hancock County (Bay St. Louis to Kiln) and southern Stone County.

Memorial provides awareness activities and screenings for early detection and by participating in a lifesaving research study. Some individuals will be provided in-depth information about specific types of cancer, their risk factors, early detections, and diagnosis and treatment options.

Memorial supports and facilitates a myriad of services designed to make living with cancer easier. These community services not only educate, but they provide resources that cancer patients and families might not otherwise have accessible. These important activities and services provided by Memorial are listed below:

Centralization of Support Services

Oncology Administration began the process of locating patient education, navigation, financial counseling, and clinical trial functions in one location for patient ease of access in 2014. To date, except for nutrition services (centralized to the hospital), the remaining services are located on the first floor of the hospital medical office building in the Memorial Cancer Center.

Nurse Navigation

Since the inception of the Nurse Navigation program in 2012, there has been consistent growth and expansion of the support services offered by the program. In 2019, the program expanded staffing to two full time nurse navigators. With the addition of a third nurse navigator position in 2021, the program successfully assists all newly diagnosed cancer patients with care coordination, education, and interhospital and community referrals for assistance as needed.

Secondary Market Treatment

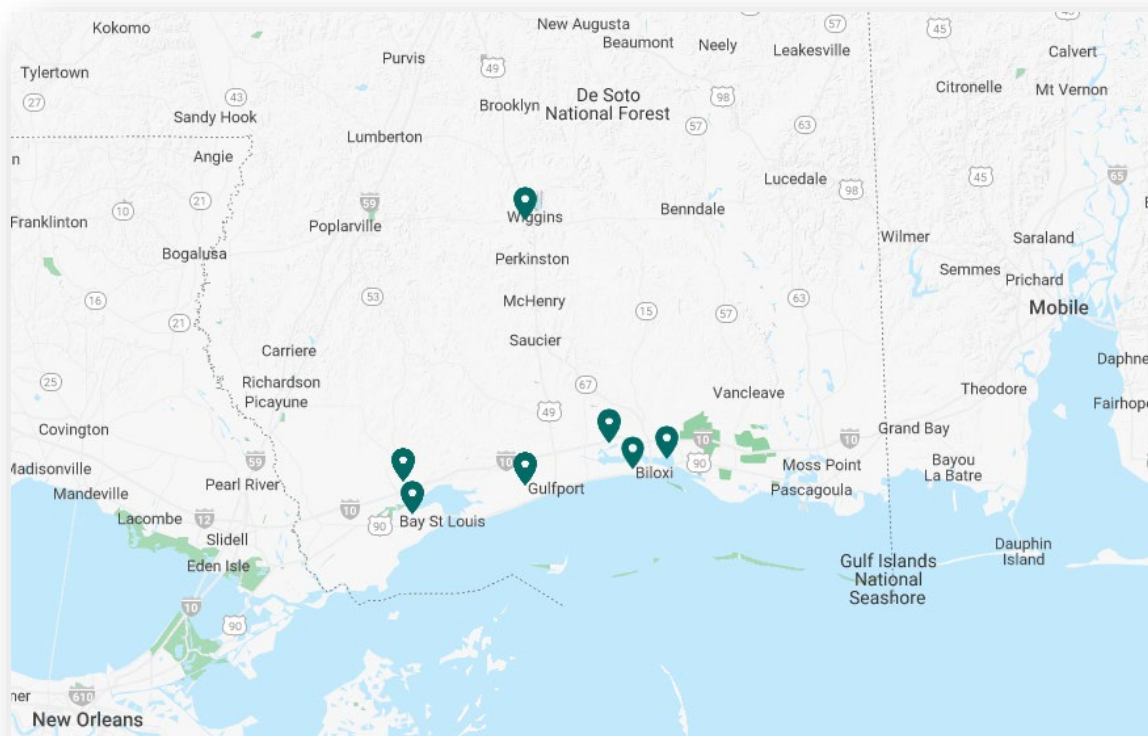
Medical Oncology has seen steady growth and market expansion. Annual goals of expanding services in Biloxi were met, including Biloxi (Cedar Lake) growth and implementation of chemotherapy treatment administration. Biloxi (Cedar Lake) expansion included four additional chemotherapy chairs. Medical Oncology physicians expanded in 2015 and 2016, providing physician services in Hancock County as well. In 2019, Memorial opened a facility in East Biloxi (on the Merit Health Campus) expanding both chemotherapy and Medical Oncology physician coverage. The Biloxi facility increased our chemotherapy service to a total of thirty-six (36) chairs throughout Harrison County. COVID-19 staffing issues did have an impact on the ability to fully staff all three infusion facilities and the Memorial at Merit Health location was closed for treatments in 2022. Recruitment efforts have been under way to

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fully staff that facility. As previously noted, cancer is the second leading cause of death in the primary/secondary service area cumulatively, but it was noted that in 2020 cancer was the leading cause of death in Stone County. In response, Memorial now sees patients at its Memorial Stone County Multispecialty location monthly. Plans are also under way for oncology infusion services to be available in Diamondhead by late 2022.

Figure 4 - Cancer Care/Oncology Locations from hospital website



Education

We offer education and screening programs annually. These included skin and breast screenings. Public education forums are held annually. Our low dose lung screening program is ongoing since implementation in 2016.

Patient Assistance Funds

Continue to seek grants and donations to support cancer patients with their treatment through transportation and bill assistance. Refine grant searches to include funds that assist patients with post screening diagnoses.

Survivorship Assistance

Survivorship Care Planning program was implemented in 2016 by the Nurse Navigation Program and is evaluated annually by the Commission on Cancer.

Collaborative Partners

American Cancer Society
Pink Heart Funds

Diabetes Education Program:

The mission of the Diabetes Care program is to help build a healthier community by teaching individuals, families, and the at-risk community the self-management skills needed to make healthy eating choices, control blood sugars, and prevent health complications related to diabetes.

The Diabetes Care Program at Memorial Hospital offers diabetes education to approximately 200 outpatients and their significant others each year. Diabetes self-management instruction is offered to adults with Type I or Type II diabetes, and to women with gestational diabetes. Diabetes self-management classes are offered weekly. Participants can choose to attend any session.

When classroom education is not appropriate for the participant, one-on-one instruction can be provided in the clinician's office. Gestational patients receive individual instruction only. Patients with learning barriers (i.e., blind, hearing deficits, ambulatory difficulties, etc.) may be seen individually.

Due to insurance requirements, participants must have a physician referral to enter the program. Before scheduling, the educator may review the reason for referral and contact the individual by phone. During initial contact, the client's self-management skills are assessed, and an education plan is developed. The client can attend an individual session with the dietitian if a separate medical nutrition therapy order is written. When one-to-one instruction is needed, a nurse educator and/or dietitian will provide education in the clinician's office.

After any education session, additional one-to-one instruction can be provided. Participants are encouraged to select a health or quality of life behavior goal that is relevant and meaningful to them and develop a plan that will help him/her achieve desired lifestyle changes.

Program participants are encouraged to participate in a three-month follow-up appointment to assess their post class goals and blood glucose control. The educator can then assess the participants' progress towards achieving their selected goal(s). Additional instruction is provided if necessary. This follow-up assessment can be done per phone if necessary.

Clients without insurance are offered resource packets containing the basic educational materials used in class and suggestions for education web sites and apps. These clients may call the Certified Diabetes Care and Education Specialist (CDCES) for questions and help.

The Outpatient Diabetes Care Team also participates in hospital and community sponsored health fairs and education seminars.

Objectives 2019

Program objectives:

1. Certified Diabetes Educator (CDE) will continue networking with clinic nurse navigators to increase referrals 2%.
2. If class participant completes a program evaluation: 80% will rate a satisfaction score of "3" or above- in each of the ten-core education topics.

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Diabetes Education - Patient Outcomes 2019

If post program A1C is available: 75% will have lowered their A1C.

1. 75% of follow up participants are doing a self-foot exam at least weekly.
2. 75% of follow up participants are following a carbohydrate-controlled meal plan at least 6 days a week.

Objectives 2020-2021

Diabetes Care renewed ADA recognition certification until 12/1/2025. In 2020 telehealth was approved for COVID affected clients. During the 2020 Annual Program Review, it was noted the program received more clients with a Dx of Latent Autoimmune Diabetes in Adults (LADA). This is due to increased endocrinology testing for antibodies. This diagnosis can be confusing and education sessions may be added to patients care plan.

2020-2022 COVID decreased both referrals and participants.

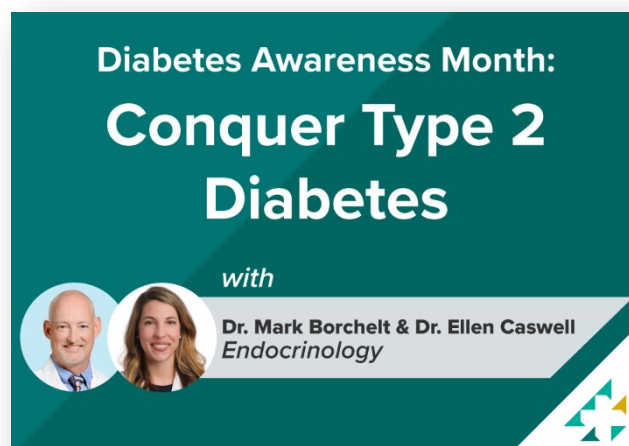
Telehealth Diabetes education became available via Doximity when CMS approved Nurse CDCES providers. Telehealth has proven useful for persons in quarantine and recovering from COVID. Telehealth has also been helpful to patients with mobility issues.

Diabetes education can be scheduled at the Memorial Endocrinologist clinic located at 4540 West Railroad, in addition to the classrooms available at the South Building at Memorial Hospital main campus.

Patient Outcomes 2020-2021

1. Post education review showed that 94% of those completing ADA education have a lower A1C at 3 months.
2. Participants report COVID restrictions have decreased meals away from home, and more meals being prepared at home.
3. Telehealth remains available to patients with COVID or mobility restrictions.
4. Classrooms in the South Building, and the Endocrinology clinic are used for group, and 1:1 education.

Figure 5 - Social media announcement for Diabetes Awareness month



Medical Nutrition Therapy (MNT) and Diabetes Care

Individualized MNT is available for Type I, Type 2, and Gestational Diabetes upon referral. Nutrition intervention should be a collaborative effort between the patient, Registered Dietitian, and the primary care provider, focusing on lifestyle factors that optimize overall health, while managing comorbid conditions and preventing complications. The goals of MNT for patients with Diabetes include the promotion of healthy eating patterns, maintaining a healthy weight, attaining individualized glycemic, blood pressure and lipid goals.

In addition to Diabetes, Medical Nutrition Therapy (MNT) is available for any nutrition related chronic disease, such as heart disease, cancer, pulmonary, renal, obesity and malnutrition. Memorial Registered Dietitians participate in community health fairs, Memorial's Speakers Bureau, Cardiac Rehab, Pulmonary Rehab and Congestive Heart Failure (CHF) Clinic.

ThinkFirst Brain and Spinal Cord Injury Awareness Program:

The ThinkFirst program is specifically targeting high risk groups of children and teenagers. The educational programs are provided to children across the coast in Harrison, Hancock, and Jackson counties. Traumatic Brain Injury (TBI) is an insult/injury to the brain from an external mechanical force. The resulting injury may be temporary or permanent that involves a decreased or altered level of consciousness. Crucial cognitive, physical and/or psychosocial functions may be affected and/ or permanently altered/lost as a result. It is important to note that brain injury is not the same as head injury as the latter may not be associated with neurological associated effects. There is no cure for traumatic brain injury. Therefore, prevention is the best approach to minimize the chance of a traumatic brain injury.

Educational programs were developed by the ThinkFirst National Injury Prevention Foundation to decrease overwhelming number of injuries. These programs are specifically targeting the high-risk group of children and teenagers. The mission of ThinkFirst is to promote education and research in the prevention of brain, spinal cord/traumatic injuries.

The Memorial Chapter has implemented several creative and interactive programs to engage children to foster learning about brain and spinal cord injury prevention. The Memorial Hospital Foundation ThinkFirst Chapter has partnered with the Mississippi Department of Rehabilitation Services, the Mississippi Department of Marine Resources, and State Farm to provide a variety of safety programs to our local community. These programs include boat and water safety, ATV safety as well as bicycle safety. Children in our area attend safety presentations and walk away with not only the knowledge of why it is so important to practice safe behaviors but, a helmet or lifejacket to take home to execute the behaviors they have learned. These efforts were all aimed at promoting the ThinkFirst mission "Leading injury prevention through education, research and policy."

The Memorial Chapter participated in Community events for local Boys and Girls Clubs on November 5th & 20th in the fall of 2019 distributing helmets to attendees. However, not long after these events the Mississippi Gulf Coast, along with the rest of the nation, began feeling the initial effects of the COVID-19 pandemic. As the pandemic continued the Foundation Board of Directors voted on June 16, 2020, to discontinue the ThinkFirst program at Memorial. As resources become available, the Foundation may elect to become a participant once again.

Stroke Care and Heart Health:

Memorial Health System services extend across the three coastal counties (Hancock, Harrison, & Jackson) and bordering counties to the north (Pearl River, Stone, George, & Greene). Memorial Hospital serves a large population of low-income, government sponsored and uninsured families.

Stroke continues to be ranked within the top six leading causes of death for the counties noted, and the sixth leading cause of hospitalization in Mississippi. Memorial operates the Memorial Stroke Center which is certified by The Joint Commission and was the first primary stroke center in Mississippi. Certification by The Joint Commission validates that the Memorial Stroke Center has a detailed stroke care protocol, stroke rapid response team, integrated emergency response system, and a commitment to community education about stroke symptoms, risks, and treatment. Memorial Hospital Stroke Center established a tele-stroke system in 2015 with Memorial Stone County Campus to provide access to acute stroke treatment in a previously underserved population.

According to the CDC, heart disease is the number one cause of death in the world and the leading cause of death in the United States (U.S.), accounting for 1 in 5 deaths. Heart disease is the top leading cause of death in Mississippi and in the counties that we serve. It is the number one killer of men, women, and people of most racial and ethnic groups. Nearly 605,000 people in the U.S. have their first heart attack each year; approximately 200,000 have a recurrent heart attack. Cardiovascular disease is the leading global cause of death, with over 17 million deaths every year and increasing.

Memorial Heart Services has served this community for over more than 35 years with access to advanced technology and comprehensive cardiac care along the continuum. MHS offers exceptional emergency treatment in the chest pain emergency department, provides non-invasive diagnostic studies, interventional treatment in the cardiac catheterization labs including transradial cardiac catheterization, electrophysiology for atrial fibrillation patients, cardiothoracic surgery for coronary bypass, valve and vascular conditions, and cardiac rehabilitation.

Our goal, through our community outreach efforts, is to prevent stroke and heart-related conditions and/or minimize long term disabilities from the conditions. We provide education to the community about the risk factors related to stroke and heart disease, how to manage their risk factors, the signs and symptoms of a stroke and/or a heart attack. The importance of activating the emergency response system early to improve long term outcomes is emphasized. We strive to decrease the length of stay, improve long term outcomes after discharge and reduce readmissions.

Community leaders and healthcare providers need to be informed about risk factors, prevention, emergency response, and the latest evidence-based standards of care. They also need to be aware of what services are available at Memorial Health System and the treatment options for both stroke and heart disease. Research shows that a more informed and educated community will reap better patient outcomes. We want our community to be involved in their healthcare, be knowledgeable about preventive measures, treatment options, and to recognize cardiac and stroke emergencies.

Community education on stroke and cardiac risk factors, prevention, management, and emergency response will occur throughout the year at a variety of community locations through health fairs and civic/community organization speaking engagements, meetings, and seminars.

Memorial Health System Community Health Needs Assessment

Stroke Program

Our goal with community outreach is to prevent stroke and minimize long term disability. Memorial Stroke program meets this goal by focusing on education with our local community members, EMS, and healthcare professionals. Stroke community education focuses on topics such as stroke recognition, activation of EMS and risk factors. This education is typically provided during community health fairs and other in-person community events. The Covid-19 pandemic had direct impact on the stroke program's ability to provide in-person community education. We developed more creative ways to reach out to the community through use of social media and local TV networks. As the pandemic continues, Memorial continues to use social media, in-person, and local news stations events to provide community education. Memorial also provides community education to EMS and healthcare professionals by providing Advanced Stroke Life Support courses.

Measure of Success – Stroke Program

Community Health Events - September 2019 to present:

- Health Fair at Isiah Fredericks Community Center
 - Stroke risk assessment, stroke recognition, activation of EMS
 - October 2019
 - Attendees - Community members
- Health Fair at Stone County Hospital
 - Stroke risk assessment, stroke recognition
 - November 2019
 - Attendees - Community members and healthcare professionals
- Community Education Event at Merit Health Biloxi
 - Evolution of Stroke Care provided by medical director of stroke program
 - December 2019
 - Attendees - Community members and healthcare professionals
- Stroke awareness for May stroke month
 - Stroke recognition and activation of EMS
 - Social media posts via Facebook and Instagram
 - Interview with local news station May 2021
 - Attendees - Community members
- MS Gulf Coast Community conversations
 - Discussing about post stroke care by medical director of stroke program
 - May 2021
 - Attendees - Community members

Figure 6 - photo of MHS employees educating citizens about stroke



Memorial Health System

Community Health Needs Assessment

- MS Healthcare Alliance South Regional Symposium in Hattiesburg, MS
 - Treatment for stroke by medical director of stroke program
 - July 2021
 - Attendees - Regional EMS and healthcare professionals
- World Stroke Day
 - Stroke recognition and activation of EMS
 - Social media posts via Facebook and Instagram
 - Interview with local news station by medical director of stroke program
 - October 2021
 - Attendees - Community members
- Community education event
 - Press release: Stroke in women: don't ignore subtle signs of stroke
 - February 2022
 - Attendees - Community members
- Community education
 - Brain injury awareness including stroke by medical director of stroke program
 - Social media posts via Facebook and Instagram
 - Interview with local news station
 - March 2022
 - Attendees - Community members
- Community education
 - Aphasia in recent news, causes and activation of EMS by neurologist
 - Social media posts via Facebook and Instagram
 - April 2022
 - Attendees - Community members
- Community Education
 - Understanding Stroke by medical director of stroke program
 - Interview with local news station
 - Social media via Facebook and Instagram
 - May 2022
 - Attendees - Community members
- Health Fair at Lynn Meadow Back to School
 - Stroke risk assessment, stroke recognition, activation of EMS
 - July 2022
 - Attendees - Community members

Figure 7 - photo of Stroke Medical Director being interviewed about the Stroke Center



Memorial Health System

Community Health Needs Assessment

Stroke Program Community EMS and healthcare professional's education September 2019 to present:

- Advance Stroke Life Support Class in Gulfport, MS
 - Stroke recognition, early management of acute stroke
 - November 2019
 - Attendees - Regional EMS and healthcare professionals
- Advance Stroke Life Support Class in Gulfport, MS
 - Stroke recognition, early management of acute stroke
 - December 2019
 - Attendees - Regional EMS and healthcare professionals
- Advance Stroke Life Support Class in Jackson, MS
 - Collaborated with MS Healthcare Alliance and other hospitals
 - Stroke recognition, early management of acute stroke
 - February 2020
 - Attendees - Regional EMS and healthcare professionals
- Advance Stroke Life Support Class in Gulfport, MS
 - Stroke recognition, early management of acute stroke
 - September 2020
 - Attendees - Regional EMS and healthcare professionals
- Advance Stroke Life Support Class in Gulfport, MS
 - Stroke recognition, early management of acute stroke
 - October 2020
 - Attendees - Regional EMS and healthcare professionals
- Advance Stroke Life Support Class in Gulfport, MS
 - Stroke recognition, early management of acute stroke
 - November 2020
 - Attendees - Regional EMS and healthcare professionals
- Advance Stroke Life Support Class in Jackson, MS
 - Collaborated with MS Healthcare Alliance and other hospitals
 - Stroke recognition, early management of acute stroke
 - February 2022
 - Attendees - Regional EMS and healthcare professionals

Figure 8 - photo of MHS employees engaged in continuing education about stroke



Cardiac Program

- Gulf Coast Heart Walk at Jones Park Gulfport – September 28, 2019
 - Partnered with local nursing school students to provide blood pressure checks to participants
- Memorial Stone County Community Health Fair - November 2, 2019

Memorial Health System Community Health Needs Assessment

- Checked body fat percentage and body mass index
- Wear Red Day for Heart Health Awareness, February 7, 2020
 - Increased awareness of heart healthy habits, staff gathered to take photos holding heart healthy messages and given fruit for a heart-healthy snack.
- Mississippi Health Care Alliance State Conference, Jackson, MS, February 7, 2020 –
 - Memorial patient was the honored ST elevation myocardial infarction (STEMI) Miracle patient, and we recognized the local American Medical Response (AMR) emergency medical services (EMS) providers that responded to the scene of her emergency.

Figure 9 - photos of MHS employees





Figure 10 - photo of MHS employees

- U.S. News & World Report, Best Regional Hospital in the Coastal Region of Mississippi for 2020-21 – high performing in CHF (Heart Failure), November 2020 - high performers provide care at the top 25 percent in the region/state based on patient survival and safety data, and nurse staffing levels.
- CONNECT-HF, Heart Failure Clinical Trial participant site, sponsored by Duke Clinical Research Institute (DCRI) enrolled more than 50 heart failure patients – provided follow-up at regular intervals and additional resources to patients to better manage their heart failure. Dr. Paul Mullen, Memorial Cardiologist, Principal Investigator for Memorial site. No longer enrolling participants. Ended October 2021.
- Myocardial Ischemia and Transfusion (MINT) Clinical Trial ongoing participant site, sponsored by the National Institutes of Health enrolling more than 25 heart attack patients with anemia to determine necessity of blood transfusion for this population. Dr. Paul Mullen, Memorial Cardiologist, Principal Investigator for Memorial site. Continues to enroll eligible participants.
- Wear Red Day for Heart Health Awareness, February 5, 2021
 - Increased awareness of heart healthy habits, staff gathered to take photos holding heart healthy messages.
- Heart Month social media campaign, February 2021
 - Multiple heart topics discussed by experts on the following topics:
 - ✓ Understanding Atrial Fibrillation
 - ✓ High Cholesterol
 - ✓ What is Diabetes
 - ✓ What is Hypertension
 - ✓ Heart Failure
- Mississippi Health Care Alliance Regional Conference, Hattiesburg, MS, July 2021 –
 - Memorial Pulmonologist/Intensivist, Dr. Bobby Tullos, was a guest speaker and discussed Targeted Temperature Management (TTM) for post cardiac arrest patients with health care providers across the southern region of the state.

Memorial Health System

Community Health Needs Assessment

- Gulf Coast Heart Walk at Jones Park Gulfport – October 2, 2021
 - Shifted to a live/virtual event COVID-19 surge July/August of 2021 had an impact in the hospital participation.
- Dial Don't Drive Campaign via the MS Healthcare Alliance commercials
 - Message to call 911 for heart attack, stroke, and cardiac arrest
 - These were pushed out again during the pandemic to remind the community to call 911 and not stay home due to the fear of COVID-19 if having heart attack or stroke symptoms.
- Cardiac Rehab Classes on Heart-Healthy Diet, ongoing education facilitated by a Memorial Registered Dietician, monthly for heart attack, heart surgery and heart failure patients and their significant others (*patients referred to Cardiac Rehab by their provider).
- Five-Star Rated for Pacemaker Procedures and Carotid Procedures according to Healthgrades – January 11, 2022
- Wear Red Day for Heart Health Awareness, February 4, 2022. Event increased awareness of heart healthy habits, staff gathered to take photos holding heart healthy messages.
- Heart Month social media campaign, February 2021
 - Multiple heart topics discussed by experts on the following topics:
 - ✓ COVID-19 and Heart Health
 - ✓ When you Might Need an Electrophysiologist
 - ✓ Signs and Symptoms of Heart Disease
 - ✓ Symptoms of a Heart Attack
 - ✓ Causes & Symptoms of Aortic Stenosis
 - ✓ Simple Tips for a Healthy Heart
- Mississippi Health Care Alliance (MHCA) State Conference, Jackson, MS, February 25, 2022 –
 - Memorial patient was the honored Cardiac Arrest and Targeted Temperature Management (TTM) Miracle patient and recognized the AMR EMS providers, Biloxi Fire Department first responders and the Dispatcher that coached his wife to perform CPR.
- WLOX – The Optimizer Smart Surgery, March 3, 2022 – Memorial patient and Dr. Rizk share new treatment option for heart failure
- VJ Canizaro, MD Health Summit Spotlight on Diabetes & Obesity and Health – The National Diabetes & Obesity Research Institute at Tradition, Biloxi, MS, March 11, 2022. Educational event for community health care colleagues with the latest on treatment strategies for diabetes and obesity. Provide with support from Memorial.

Figure 11 - photo of MHCA event





Figure 12 - Photo of MHS – Gulfport campus during COVID-19 pandemic

RESPONSE TO PUBLIC HEALTH EMERGENCY

Public Health Emergency – COVID-19

MHS has dedicated countless hours since the onset of the COVID-19 pandemic in a continuous effort to serve the health needs of the community during a public health emergency. Throughout the pandemic MHS continuously educated staff on all COVID-19 protocols along with purchasing equipment to maintain quarantine/isolation of affected patients while providing quality care. As these events continued to unfold, no one could predict just how long the pandemic would last, but as of this writing the pandemic continues as the nation is still under a public health emergency.

An anxious, scared community has leaned on the health system more than ever for help. During these times, MHS and its staff became the definition of an American Hero and stood strong, never wavering, no matter how adverse the circumstances were. One could never put into words all the sacrifices made, battles won and loss, or hours devoted to keeping the community safe; but to give a sense of the magnitude of effort on display by MHS the following is a small fraction of their endless response to the pandemic commonly referred to as COVID-19.

Memorial Health System
Community Health Needs Assessment
COVID-19 Pandemic – 2020 Response

Protect Our Patients, Residents & Community

Influenza and Coronavirus is primarily a community-based infection that is transmitted in households and community settings. It spreads by respiratory droplets through:

- Coughing and sneezing
- Close personal contact, such as touching or shaking hands
- Touching surfaces after someone infected with the virus coughs or sneezes

The Centers for Disease Control and Prevention defines visitor guidelines to reduce the transmission of the flu and Coronavirus. Memorial is asking visitors to comply with these guidelines listed below.

STOP
Please do not visit our patients if:

- ▶ **You are ill:**
 - Fever/Cough
 - Flu-like illness
 - Sore throat/chills
 - Runny nose
 - Vomiting
- ▶ **Known or suspected 2019 Coronavirus (COVID-19) patient**
- ▶ **Traveled to an affected area with widespread or community 2019 Coronavirus (COVID-19)**
- ▶ **You are under age 12:**
 - There is a significant risk of contracting or carrying the virus into the community

Steps to minimize exposure to Influenza and Coronavirus:

- Get a flu vaccine. Currently there is no vaccine to protect against Coronavirus
- Wash your hands often with soap & water or use at least a 60% alcohol-based hand sanitizer
- Only wear a mask if you are healthy and caring for an infected patient
- Cover your mouth & nose with your elbow or a tissue when you cough or sneeze
- Avoid touching your eyes, nose & mouth
- Clean surfaces that you touch often
- Stay home from work, school and public areas if you're sick
- Maintain social distancing – 3 feet between yourself and anyone who appears sick, coughing or sneezing

Memorial

STOP Health Alert

To protect our patients, staff and community

- ▶ Access to the hospital is restricted, and this entrance is closed.
- ▶ 1st Floor Parking Garage Atrium Entrance Open 24/7
- ▶ Main Entrance Open 8:00 am – 5:00 pm

Memorial

- First COVID-19 patient reported in Mississippi on 3/10
- Memorial implements pandemic plan activation and begins inpatient visitor screening process on 3/13
- Two confirmed cases of COVID-19 patients at MHS on 3/17
- MHS closes onsite operations to the public on 3/19
- MHS begins COVID-19 testing at clinic locations on 3/23
- Telemedicine implemented mid-March
- COVID-19 Hotline (228) 867-5000 begins offering clinical assistance re: signs and symptoms and provides clinic locations / hours in April

Figure 13 - Various COVID Flyers

Memorial Physician Clinics COVID-19 Hotline 8:00am - 8:00pm Everyday
(228) 867-5000

If you are ill, please visit one of the clinic sites below.
 Call before visiting a clinic so the staff may determine the next steps or prepare.

- 1. Wiggins**
Memorial Stone County Medical Center
1440 East Central Ave.
M-F 8a-5p
Sat. & Sun. 9a-3p
- 2. Biloxi**
Memorial Primary Care Cedar Lake
1756 Poppas Ferry Rd.
M-F 8a-5p
Sat. & Sun. 9a-3p
- 3. Ocean Springs**
Memorial Surgery Center of Ocean Springs
3882 Bienville Blvd.
M-F 8a-5p
Sat. & Sun. 9a-3p
- 4. Gulfport**
Memorial Magnolia Grove Walk-In Clinic
4333 15th Street, Ste. B
M-F 8a-5p
Sat. & Sun. 9a-3p
- 5. Long Beach**
Memorial Long Beach Walk-In
5120 Beatline Rd., Ste. B
M-F 8a-5p
Sat. & Sun. 9a-3p
- 6. Bay St. Louis**
Memorial Drinkwater Internal Medicine Walk-In Clinic
300 Drinkwater Drive
M-F 8a-5p
Sat. & Sun. 9a-3p
- 7. Diamondhead**
Memorial Hancock Family Practice
4433 Leisure Time Dr.
M-F 8a-5p
Sat. & Sun. 9a-3p

Memorial

Memorial Health System
Community Health Needs Assessment

COVID-19 Pandemic – 2020 Response continued

- Total calls to (228) 867-5000 COVID-19 Hotline in 2020: 65,680
- 75,882 Telehealth appointments in 2020
- COVID related news stories: 260



MEMORIAL PHYSICIAN CLINICS
COVID-19 HOTLINE
(228) 867-5000
8am – 8pm EVERYDAY

A recorded message with relevant, commonly asked questions will be available after 8pm.

If you have **COUGH, FEVER, SHORTNESS OF BREATH**, please call (228) 867-5000 before visiting the clinic sites below:

- ▶ **Memorial Primary Care Cedar Lake**—1756 Poppas Ferry Rd., Biloxi | **M-F 8a-5p | Sat. & Sun. 9a-3p**
- ▶ **Memorial Magnolia Grove Walk-In Clinic**—4333 15th Street, Ste. B, Gulfport | **M-F 8a-8p | Sat. & Sun. 9a-3p**
- ▶ **Memorial Long Beach Walk-In**—5120 Beatline Rd., Ste. B, Long Beach | **M-F 8a-5p | Sat. & Sun. 9a-3p**
- ▶ **Memorial Surgery Center of Ocean Springs**—3882 Bienville Blvd., Ocean Springs | **M-F 8a-5p | Sat. & Sun. 9a-3p**
- ▶ **Memorial Drinkwater Internal Medicine Walk-In Clinic**—300 Drinkwater Dr., Bay St. Louis | **M-F 8a-5p | Sat. & Sun. 9a-3p**
- ▶ **Memorial Hancock Family Practice**—4433 Leisure Time Drive, Diamondhead | **M-F 8a-5p | Sat. & Sun. 9a-3p**
- ▶ **Memorial Stone County Medical Center** 1440 East Central Avenue, Wiggins | **M-F 8a-5p | Sat. & Sun. 9a-3p**

TELEHEALTH LOCATIONS ONLY

- ▶ **Memorial Physician Clinics Walk-In Clinic at Bridgewater Center** —8950 Lorraine Road Suite B, Gulfport | **M-F 8a-8p | Sat. & Sun. 9a-3p**
- ▶ **Memorial Physician Clinics Walk-In Clinic** —189 Wal Mart Lane, Biloxi | **M-F 8a-5p**

Memorial



Fast
Health care
in your
hands!

Provider visits within an hour by
Phone or Video
No Appointment Needed

(228) 867-5000 Memorial



Anne Musgrove, CFNP
certified family nurse practitioner

Memorial



COVID-19 LATEST

WLOX NEWS NOW
4:04 | 81°

wlox.com HEADLINES: line operating 24/7; Call (877) 978-6453 if you have questions

Figure 14 - COVID flyers & educational videos



Figure 15 - MHS employees receiving PPE and supplies

COVID-19 Pandemic – 2020 Response continued

- Demand for Supplies (Personal Protective Equipment)
 - Approximately 7000 packages/boxes per month from FedEx Air, FedEx Ground & UPS checking in and delivering.
 - 400 pallets per month from our primary/secondary distributors and other freight companies.
 - Cost of supplies 40 times the cost, combined with an increase of about 800 times our normal usage.
- Monoclonal Antibody Infusion administration for COVID-19 positive outpatients – began in November 2020 as an emergency use authorization by the FDA and this treatment continues to present. Treated over 7,000 patients to date. Therapy prevents progression to more severe COVID-19 progression in high-risk patients and reduces hospitalization. Infusions later made available at Stone County campus.
- COVID Clinical Trial – (Phase 3 Randomized, Double-Blind Placebo-Controlled trial) Evaluate Efficacy/Safety of Remdesivir for treatment of COVID-19 positive outpatients, sponsored by Gilead Sciences, enrolled 12 patients – September 2020. Dr. Jesse Penico, Memorial Infectious Disease, Principal Investigator for Memorial site.
- Get With the Guidelines (GWTG) COVID-19 CVD Registry participant site, developed by the American Heart Association for hospitals and health systems to better understand the COVID-19 pandemic with real-time data to understand best treatment strategies.

COVID-19 Pandemic – 2021 Response

COVID-19 VACCINE DEPLOYMENT – Early 2021

OVERVIEW OF STRATEGY:

Memorial partnered with many local community leaders to provide COVID vaccines to residents of the MS Gulf Coast to protect the public and mitigate the rapid spread of the COVID-19 virus. Many of the vaccine sites selected were requested from community organizations and elected officials. These areas had many socioeconomic disparities including low income, limited English comprehension, transportation issues, and disabled populations. These lower socioeconomic areas showed a much lower vaccine rate than other areas along the MS coast. Many areas surrounding the chosen vaccine sites were lower income housing areas with multi-level households, some with elderly and caregivers and others with limited access to transportation. Each selected area was mostly rural, impoverished, and chosen to give these high-risk populations easier access to the Covid-19 vaccine.

OUTREACH AND ENGAGEMENT:

The goal of the vaccine community outreach was to provide authentic, transparent, and inclusive engagement while building trust among the different communities along the MS Gulf Coast. Memorial staff engaged with local community council members, business owners, clergy, local schools, utility companies, and government officials to gather information on the needs of their constituents and gauge general areas to provide vaccines with the best chances for access to all members of these communities. Many officials organized locations at community centers, free of charge, to engage members and increase vaccine rates in these areas. To ensure outreach and access to underserved communities, Memorial used its RV unit equipped with clinical supplies as a mobile clinic. This RV was placed in several communities along the MS Gulf Coast to provide mobile vaccine services to high-risk populations and communities with limited access to transportation. Several vaccine sites were staffed with bi-lingual providers to assist with limited English-speaking populations. Memorial created a COVID Hotline (228) 867-5000 with 24-hour access to staff for general information on the vaccine, location sites for vaccines, and scheduling appointments at these events. Memorial also created Telehealth access to providers in clinics and through the hotline to assess and answer questions. Locations were broadcasted via social media platforms, local radio, and news stations. To engage the community and increase confidence in the vaccine, Memorial provided social media podcasts, live Q&A sessions via social media with Infectious Disease specialists, and interviews with physicians on local news stations.

COVID-19 Pandemic – 2021 Response continued

REGISTRATION PROCESS:

Memorial staff was on site to register and check in at the entrance of the location. Registration forms were filled out by patients on site, along with health questionnaires and informed consent. Once forms were completed, patients would move to the screening table for temperature check by a nurse prior to vaccine administration. Once the vaccine was administered, the patient would wait 15 minutes to monitor for complications. All paperwork was sent to employees working on site to finish the registration process in the computer. Patients were automatically scheduled to return for their 2nd dose at the same time and same location to increase access and compliance for the 2nd dose of the vaccine.

PHYSICAL SITE DESIGN AND ACCESS:

Vaccine sites were set up in large community centers centrally located to highly populated areas with plenty of parking and ample space to accommodate patients inside the center. Separate waiting areas for registration and vaccinated patients were set up at these locations. Multiple vaccine stations were set up using private curtains to accommodate the increased volume of patients at these larger locations. Separate waiting areas were created for patients to wait 15 minutes after the vaccine was administered to monitor for side effects. Providers were on site to manage any complications. Elderly patients and those with disabilities and/or limited mobility were able to remain in their vehicle. These sites allowed staff to administer the vaccine at car side to mitigate fall risks.

Figure 16 - Vaccine administration event



COVID-19 Pandemic – 2021 Response continued

EVALUATION AND CONTINUOUS IMPROVEMENT:

Evaluations from previous events at local Memorial clinics were conducted to determine whether the set up and workflows were effective. The Memorial administration team was dedicated to continuously improving its performance for its patients and the community. These evaluations provided Memorial with opportunities to improve on its processes and find larger centers to accommodate the high demand for the vaccine, prevent overcrowding, and allow for better social distancing. Memorial administration began working with community leaders to find larger locations to accommodate parking, patient volume and broader community outreach. Further improvements were made with registrations and set up to keep the flow moving and minimize wait times for the vaccines at these locations. Memorial administration team met to discuss the previous set up at initial vaccine locations to determine better methods for access, administration, and capacity. The team consisted of the VP, clinical directors, nurses, and advanced practice providers to work through all areas of the vaccine process. Administration met with community leaders to visit larger community sites that would accommodate the volume and needs for vaccine administration.

Figure 17 above - Vaccine administration drive thru event



COVID-19 Pandemic – 2021 Response continued

STONE COUNTY CLINIC (Wiggins, MS):

This clinic site is in a small rural community. The population in this rural area included elderly over 65 at high risk for infection, low socioeconomic status with limited access to vaccines offered in larger areas. Memorial used its current clinic location to stage vaccine administration events. Social media and local news were used to engage the community and inform them of specific dates for these events.



The hospital 5000 hotline was used for information and scheduling appointments. Community members were encouraged to schedule appointments due to the limited amounts of the vaccine. Patients were registered on the clinic schedule, completed a health questionnaire, and informed consent. Social distancing was conducted at this site using a number system in which patients were given numbers at the time of registration and waited outside or in cars to mitigate overcrowding of the waiting room. Temperature screenings were conducted before entry into the clinic and vaccines administered by nurses on site. Patients were asked to wait 15 minutes to monitor for side effects. Providers were on site to manage any complications. Snacks and water were provided. Patients with disabilities and elderly patients with limited mobility were able to remain in their car and vaccine was administered at car side to mitigate fall risks. Patients were automatically scheduled to return for 2nd dose at the same time and same location to increase access and compliance for the 2nd dose of the vaccine.



Figure 18 - Stone County Clinic Figure 19 - Orange Grove Clinic

ORANGE GROVE (Gulfport, MS):

The Orange Grove clinic was used as one of the first sites for vaccines in early 2021. This clinic is centrally located in Gulfport, MS and was chosen to engage the community and increase the vaccination rate.

Members in this community represented all levels of socioeconomic status. Main targeted populations included the over 65 population at high risk for contracting Covid-19. Social media and local news were used to engage the community and inform them of vaccine event at this location. The hospital 5000 hotline was used for information and scheduling appointment times. Community members were

COVID-19 Pandemic – 2021 Response continued

encouraged to schedule appointments due to the limited amounts of the vaccine. Patients were registered at the clinic and temperature screenings were completed prior to entry inside. Social distancing was conducted at this site allowing limited numbers of people inside the clinic with others waiting outside or in cars to mitigate overcrowding of the waiting room. Patients were asked to wait 15 minutes after vaccine was administered to monitor for side effects. Providers were on site to manage any complications. Patients were informed to return for 2nd dose in the appropriate time frame. Memorial hotline staff contacted these patients and gave them the date, time, and location for their 2nd dose of the vaccine. Evaluation of processes at this location revealed many areas for improvement. Memorial administration began working with community leader to find larger sites to accommodate volume and further improve processes.



Figure 20 – MHS vaccine event

DIAMONDHEAD CLINIC (Diamondhead, MS):

The Diamondhead clinic was used as one of the first sites for vaccines in early 2021. This clinic is centrally located in Diamondhead, MS near Interstate 10 and was chosen to engage the community and increase the vaccination rate. Members in this community represented all levels of socioeconomic status. Main targeted populations included the over 65 populations at high risk for contracting Covid-19, limited English speaking community, and rural areas surrounding Diamondhead with limited access to vaccines in larger areas. Social media and local news were used to engage the community and inform them of vaccine event at this location. The hospital 5000 hotline was used for information and scheduling appointment times. Community members were encouraged to schedule appointments due to the limited amounts of the vaccine. Patients were registered at the clinic and temperature screenings were completed prior to entry inside. Social distancing was conducted at this site allowing limited numbers of people inside the clinic with others waiting outside and in cars to mitigate overcrowding of the waiting room. Patients were asked to wait 15 minutes after vaccine administration to monitor for side effects. Providers were on site to manage any complications. Patients were informed to return for 2nd dose in the appropriate time frame. Memorial hotline staff contacted these patients and gave them the date, time, and location for their 2nd dose of the vaccine. Evaluation of processes at this location revealed many areas for improvement. Memorial administration began working with community leaders after this event to find larger locations to accommodate parking and high volumes.

COVID-19 Pandemic – 2021 Response continued

CEDAR LAKE (Biloxi, MS):

The Cedar Lake clinic was used as one of the first sites for vaccines in early 2021. This clinic is centrally located in Biloxi, MS and was chosen to engage the community and increase the vaccination rate. Members in this community represented all levels of socioeconomic status. Main targeted populations included the over 65 populations at high risk for contracting Covid-19, limited English speaking community, and surrounding areas in D'Iberville and Ocean Springs with limited access to the vaccine. Social media and local news were used to engage the community and inform them of vaccine events at this location. The hospital 5000 hotline was used for information and scheduling appointment times.



Figure 21 - Employee conducting temperature checks at vaccine event

Community members were encouraged to schedule appointments due to the limited amounts of the vaccine. Patients were registered at the clinic and temperature screenings were completed prior to entry inside. Social distancing was conducted at this site allowing limited numbers of people inside the clinic with others waiting outside and in cars to mitigate overcrowding of the waiting room. Patients were asked to wait 15 minutes after vaccine administration to monitor for side effects. Providers were on site to manage any complications. Patients were informed to return for 2nd dose in the appropriate time frame. Memorial hotline staff contacted these patients and gave them the date, time, and location for their 2nd dose of the vaccine. Evaluation of processes at this location revealed many areas for improvement. Memorial administration began working with community leaders after this event to find larger locations to accommodate parking and high volumes.

Figure 22 - Vaccine event at local community center in Gulfport

ISIAH FREDERICKS CENTER (Gulfport, MS):

This community center is in a small low-income community. The population in this area included elderly over 65 at high risk for infection, low socioeconomic status, and multi-level households with limited access to transportation outside of this community. Memorial worked with community leaders to secure this center and inform community members of vaccine events. Social media and local news were also used to engage the community and inform them of the importance of the vaccine and



COVID-19 Pandemic – 2021 Response continued

specific dates at this location. The hospital 5000 hotline was used for information and scheduling appointment times. Community members were encouraged to schedule appointments due to the limited amounts of the vaccine. Patients were registered on the vaccine site schedule, completed a health questionnaire, and follow up appointments were scheduled for the 2nd dose at the same time and location in the 3-to-4-week allotted time frame. Social distancing was conducted at this site with separate waiting areas for registration and vaccinated patients. Temperature screenings were conducted by nurses prior to vaccine administration. Multiple vaccine stations were set up to accommodate the increased volume of patients at this larger location. After vaccines were administered, patients were asked to wait 15 minutes in a separate area to monitor for side effects. Providers were on site to manage any complications. Snacks and water were provided. Patients with disabilities and elderly patients with limited mobility were able to remain in their vehicle with vaccine administered at car side to mitigate fall risks. Patients were automatically scheduled to return for 2nd dose at the same time and same location to increase access and compliance for the 2nd dose of the vaccine.

GRUICH CENTER (East Biloxi, MS):

This community center is centrally located in a highly populated area of Biloxi, MS. The population in this area included elderly over 65 at high risk for infection, low socioeconomic status, indigent, military veterans, city workers, schoolteachers, first responders, and multi-level households with limited access

to transportation outside of this community. Memorial worked with community leaders to secure this center and inform community members of vaccine events. Memorial administration also worked closely with city officials, school administration, and local utility companies to secure vaccines for their employees at this location. Social media and local news were also used to engage the community and inform them of the importance of the vaccine and specific dates at this location. The hospital 5000 hotline was used for information and scheduling appointment times. Community members were encouraged to schedule appointments due to the limited amounts of the vaccine. Patients were registered on the vaccine site schedule, completed a health questionnaire, and follow up appointments were scheduled for the 2nd dose at the same time and location in the 3-to-4-week allotted time frame. Social distancing was conducted at this site with separate waiting areas for registration and vaccinated patients. Temperature screenings were conducted by nurses prior to vaccine administration. Multiple vaccine stations were set up to accommodate the increased volume of patients at this larger location. After vaccines were administered, patients were asked to wait 15 minutes in a separate area to monitor for side effects. Providers were on site to manage any complications. Snacks and water were provided. Patients with disabilities and elderly patients with limited mobility were able to remain in their vehicle with vaccine administered at car side to mitigate fall risks. Patients were automatically scheduled to return for 2nd dose at the same time and same location to increase access and compliance for the 2nd dose of the vaccine.

COVID-19 Pandemic – 2021 Response continued

- Total calls to (228) 867-5000 COVID-19 Hotline: 116,518
- 48,409 Telehealth appointments
- Vaccination Events: Coordinated nearly 500 vaccination events for local businesses and the public
- Patients infused with monoclonal antibodies: 6,092
- MHS updates COVID-19 testing procedures as cases decline (Oct.)
- MHS hosts several COVID-19 vaccination events for the community to help increase vaccination rates (Oct.)
- COVID-19 news stories: 183
- Press releases re: COVID-19: 35
- Media advisories: 31



The flyer features a blue header with a white virus icon and the text "Stop the Spread. Saving Our Communities TOGETHER". Below this, it states "Memorial Physician Clinic Temporary Drive-Up Location". The event details are listed with red arrow icons: "COVID-19 Screening and Testing" on "Thursday, August 13, 2020" from "8:00am-1:00pm" at the "D'Iberville Civic Center", "10395 Auto Mall Parkway – D'Iberville". A contact number for questions is provided. A section titled "You must meet medical criteria for testing" lists four bullet points: flu-like symptoms, staying in the vehicle, free testing for uninsured individuals, and wearing a mask. The Memorial Health System logo is in the bottom right corner.

Stop the Spread.
Saving Our Communities
TOGETHER

Memorial Physician Clinic
Temporary
Drive-Up Location

- ▶ **COVID-19 Screening and Testing**
- ▶ **Thursday, August 13, 2020 | 8:00am–1:00pm**
- ▶ **D'Iberville Civic Center**
- ▶ **10395 Auto Mall Parkway – D'Iberville**
- ▶ **Questions: Contact COVID-19 Hotline (228) 867-5000**

You must meet medical criteria for testing

- If you have flu-like symptoms, body aches, fever, coughing, sneezing, chills, or shortness of breath, please come to be evaluated.
- Please do not exit the vehicle. We will approach to provide assistance.
- Testing is free for those without insurance who meet medical criteria. For patients with insurance, Memorial will seek reimbursement. However, there are no out-of-pocket expenses or co-pays at the time of service.
- Please wear a mask if you own one.

Memorial

Figure 23 - COVID-19 clinic drive-up location flyer

COVID-19 Pandemic – 2022 Response

- MHS designates COVID-19 Vaccine Only clinic locations in response to the increase in cases
- Telemedicine appointments in 2022 (as of August 2022): 23,244

ABOUT THE COMMUNITY

Service Area:

Primary (PSA): Harrison and Hancock County, Mississippi

Secondary: Pearl River, Stone, Jackson, George, and Greene Counties, Mississippi

Tertiary: Other surrounding counties and states

Healthcare Providers in the Primary and Secondary Service Area:

- Memorial Hospital at Gulfport
- Memorial Hospital at Stone County
- Pearl River County Hospital
- Highland Community Hospital
- Singing River Gulfport (Garden Park Medical Center)
- Merit Health Biloxi
- Gulfport Behavioral Health System
- Select Specialty Hospital - Gulfport
- Keesler Medical Center
- Ochsner Medical Center – Hancock
- Ocean Springs Hospital
- Singing River Pascagoula
- George Regional Hospital
- Greene County Hospital

MISSISSIPPI HEALTH OUTCOMES

Understanding the makeup of the community being served will continue to gain importance as healthcare providers see reimbursement continue to shift and emphasis placed on value-based care and population health. For MHS to continue adapting and preparing for these changes, they will have to place greater emphasis and focus on preventive medicine treatment plans that focus more on population health, and with this change having a deeper understanding of the patient population will be crucial. In this section, health outcomes will be addressed from a national and state perspective to give further support on identifying what impacts MHS primary/secondary service area the most and the effects it can have on the health of the population. MHS will continue to study these dynamics when exploring the importance of a particular service line to add or remove from the hospital's current offerings.

According to the County Health Rankings and Roadmaps program, health outcomes represent how healthy a state, county, or community is right now. They reflect the physical and mental well-being of residents within a community through measures representing not only the length of life but quality of life as well. Health Outcomes are influenced by the many factors that influence health, from the quality of medical care received to the availability of good jobs, clean water, and affordable housing. These health factors are influenced by programs and policies in place at the local, state, and federal levels. By looking at data related to Health Outcomes, we can get a glimpse at whether healthcare delivery systems and health improvement programs in a state, county, or community are working. There are significant differences in health outcomes according to where we live, how much money we make, our race and ethnicity, and other characteristics. It is important to dig into the data to understand where and why health outcomes differ across an area, how a variety of health factors combine to influence these outcomes, and how our policies and programs are supporting—or restricting—opportunities for health for all.

The excerpts that follow will present findings from national studies conducted yearly on health outcomes along with a breakdown of demographics and disease incidence rates on a local level. This comparison between national, state, and local findings will provide vital information to the leadership team at MHS on what health outcomes and disease types to focus on within the community.

Figure 24 - Generic photo



Memorial Health System

Community Health Needs Assessment

UNITED HEALTH FOUNDATION | AMERICA'S HEALTH RANKINGS® ANNUAL REPORT 2021



Mississippi

State Health Department Website: msdh.ms.gov

Measures	Rating	State Rank	State Value	U.S. Value
SOCIAL & ECONOMIC FACTORS*				
Community and Family Safety	+	46	-0.612	—
Occupational Fatalities (deaths per 100,000 workers)	+	47	8.2	4.2
Public Health Funding (dollars per person)	+++	30	\$114	\$116
Violent Crime (offenses per 100,000 population)	++++	14	278	379
Economic Resources	+	50	100	—
Economic Hardship Index (index from 1-100)	+	50	15.3%	10.7%
Food Insecurity (% of households)	+	48	5.37	4.85
Income Inequality (80-20 ratio)	+	29	85.0%	85.8%
Education	+	4	6.5	15.1
High School Graduation (% of students)	+++	42	18.3%	14.8%
High School Graduation Racial Disparity (percentage point difference)	++++	49	81.4%	89.4%
Social Support and Engagement	+	3	50	62
Adverse Childhood Experiences (% ages 0-17)	+	47	26.6%	33.4%
High-speed Internet (% of households)	+	17	62.3%	60.1%
Residential Segregation — Black/White (index from 0-100)	++++			
Volunteerism (% ages 16+)	+			
Voter Participation (% of U.S. citizens ages 18+)	+++			
PHYSICAL ENVIRONMENT*				
Air and Water Quality	+	45	-0.316	—
Air Pollution (micrograms of fine particles per cubic meter)	++	38	8.1	8.3
Drinking Water Violations (% of community water systems)	+	48	6.3%	0.8%
Risk-screening Environmental Indicator Score (unitless score)	++++	16	1,367,879	—
Water Fluoridation (% of population served)	++	35	60.7%	73.0%
Housing and Transit	+	49	84.8%	75.9%
Drive Alone to Work (% of workers ages 16+)	+	10	11.0%	17.6%
Housing With Lead Risk (% of housing stock)	++++	29	15.1%	17.3%
Severe Housing Problems (% of occupied housing units)	+++			
CLINICAL CARE*				
Access to Care	+	46	13.9%	9.8%
Avoided Care Due to Cost (% ages 18+)	+	47	44.2	62.3
Providers (per 100,000 population)	+	41	187.6	284.3
Dental Care	+	33	244.4	252.3
Mental Health	++	46	13.0%	9.2%
Primary Care	+	37	70.9%	74.3%
Uninsured (% of population)	+	46	57.7%	66.7%
Preventive Clinical Services	++	37	70.9%	74.3%
Colorectal Cancer Screening (% ages 50-75)	+	46	57.7%	66.7%
Dental Visit (% ages 18+)	+	30	75.4%	75.4%
Immunizations	+	45	41.3%	47.0%
Childhood Immunizations (% by age 35 months)	+	50	31.9%	58.6%
Flu Vaccination (% ages 18+)	+	34	76.1%	77.6%
HPV Vaccination (% ages 13-17)	+	49	5,004	3,770
Quality of Care	++	34	76.1%	77.6%
Dedicated Health Care Provider (% ages 18+)	+	49	5,004	3,770
Preventable Hospitalizations (discharges per 100,000 Medicare beneficiaries)	+			
BEHAVIORS*				
Nutrition and Physical Activity	+	48	15.7%	23.0%
Exercise (% ages 18+)	+	42	6.3%	8.0%
Fruit and Vegetable Consumption (% ages 18+)	+	49	30.0%	22.4%
Physical Inactivity (% ages 18+)	+	49	85.0%	55.0%
Sexual Health	+	16	5.3%	5.6%
Chlamydia (new cases per 100,000 population)	+	49	291	16.7
High-risk HIV Behaviors (% ages 18+)	+++	40	35.0%	32.3%
Teen Births (births per 1,000 females ages 15-19)	+	47	20.1%	15.5%
Sleep Health	++	40	35.0%	32.3%
Insufficient Sleep (% ages 18+)	+			
Smoking and Tobacco Use	+	47	20.1%	15.5%
Smoking (% ages 18+)	+			
HEALTH OUTCOMES*				
Behavioral Health	+	43	-0.622	—
Excessive Drinking (% ages 18+)	++++	7	15.2%	17.6%
Frequent Mental Distress (% ages 18+)	++	36	14.4%	13.2%
Non-medical Drug Use (% ages 18+)	+++	14	9.2%	12.0%
Mortality	+	49	11,256	7,337
Premature Death (years lost before age 75 per 100,000 population)	+	27	1.5	1.5
Premature Death Racial Disparity (ratio)	+++	31	10.3%	9.9%
Physical Health	++	31	10.3%	9.9%
Frequent Physical Distress (% ages 18+)	+	50	12.3%	8.3%
Low Birthweight (% of live births)	+	27	2.0	2.1
Low Birthweight Racial Disparity (ratio)	+++	44	12.8%	9.1%
Multiple Chronic Conditions (% ages 18+)	+	50	39.7%	31.9%
Obesity (% ages 18+)	+			
OVERALL	—	—	-0.791	—

* Values derived from individual measure data. Higher values are considered healthier.
 — Data not available, missing or suppressed.
 For measure definitions, sources and data years, see the Appendix or visit www.AmericasHealthRankings.org

Rating	Rank
+++++	1-10
++++	11-20
+++	21-30
++	31-40
+	41-50

ANNUAL REPORT www.AmericasHealthRankings.org

Summary

Strengths:

- Low prevalence of excessive drinking
- Low racial disparity in high school graduation rates
- Low percentage of housing with lead risk

Challenges:

- High premature death rate
- High percentage of households with food insecurity
- High prevalence of cigarette smoking

Highlights:

DRUG DEATHS

▲27%

from 10.6 to 13.5 deaths per 100,000 population between 2018 and 2019

FREQUENT MENTAL DISTRESS

▼17%

from 17.3% to 14.4% of adults between 2019 and 2020

MENTAL HEALTH PROVIDERS

▲8%

from 173.0 to 187.6 per 100,000 population between 2020 and 2021

Memorial Health System
Community Health Needs Assessment

UNITED HEALTH FOUNDATION | AMERICA'S HEALTH RANKINGS® SENIOR REPORT 2022



Mississippi

State Health Department Website: msdh.ms.gov

Overall Rank:
50

Summary

Strengths:

- Low prevalence of excessive drinking
- Low prevalence of falls
- Low prevalence of severe housing problems

Challenges:

- High early death rate
- High risk of social isolation
- High prevalence of physical inactivity

Highlights:

EARLY DEATHS

▲22%

from 2,481 to 3,024 deaths per 100,000 adults ages 65-74 between 2019 and 2020

FLU VACCINATION

▲20%

from 55.1% to 66.1% of adults ages 65+ between 2017 and 2020

FALLS

▼17%

from 31.5% to 26.2% of adults ages 65+ between 2016 and 2020

Measures

		Rating	State Rank	State Value	U.S. Value
SOCIAL & ECONOMIC FACTORS*		+	50	-1.281	—
Community and Family Safety	Violent Crime (offenses per 100,000 population)	++++	14	291	399
Economic Resources	Food Insecurity (% of adults ages 60+)	+	50	19.8%	12.6%
	Poverty (% of adults ages 65+)	+	48	13.2%	9.4%
	Poverty Racial Disparity (ratio)*	—	—	41	2.7
	SNAP Reach (participants per 100 adults ages 60+ in poverty)	+	41	50.0	81.0
Social Support and Engagement	Community Support Expenditures (dollars per adult ages 60+)	++	38	\$26	\$57
	High-speed Internet (% of households with adults ages 65+)	+	50	63.8%	78.0%
	Low-care Nursing Home Residents (% of residents)	++	34	17.1%	15.2%
	Risk of Social Isolation (Index 1-100, adults ages 65+)	+	50	100	—
	Volunteerism (% of adults ages 65+)	+	46	25.9%	31.6%
PHYSICAL ENVIRONMENT*		+	44	-0.180	—
Air and Water Quality	Air Pollution (micrograms of fine particles per cubic meter)	++	38	81	8.3
	Drinking Water Violations (% of community water systems)	+	48	6.3%	0.8%
Housing	Severe Housing Problems (% of small households with an adult ages 62+)	++++	8	25.2%	32.7%
CLINICAL CARE*		+	49	-0.747	—
Access to Care	Avoided Care Due to Cost (% of adults ages 65+)	+	49	5.8%	4.2%
	Geriatric Providers (providers per 100,000 adults ages 65+)	+++	28	26.2	31.1
	Home Health Care Workers (workers per 1,000 adults ages 65+)	++	33	3.71	5.77
Preventive Clinical Services	Cancer Screenings (% of adults ages 65-75)	++	36	74.7%	75.9%
	Flu Vaccination (% of adults ages 65+)	++	32	66.1%	67.3%
	Pneumonia Vaccination (% of adults ages 65+)	+	43	66.6%	70.3%
Quality of Care	Dedicated Health Care Provider (% of adults ages 65+)	+++	27	93.6%	93.5%
	Hospice Care (% of Medicare decedents)	+	41	45.2%	50.7%
	Hospital Readmissions (risk-standardized readmission rate per 100 admissions)	++++	20	16	16
	Nursing Home Quality (% of beds rated four or five stars)	+	49	26.8%	41.2%
	Preventable Hospitalizations (discharges per 100,000 Medicare beneficiaries ages 65-74)	+	47	2.321	1,582
BEHAVIORS*		+	47	-1.198	—
Nutrition and Physical Activity	Exercise (% of adults ages 65+)	+	49	13.4%	23.1%
	Fruit and Vegetable Consumption (% of adults ages 65+)	+	45	5.0%	7.3%
	Physical Inactivity (% of adults ages 65+ in fair or better health)	+	46	38.2%	30.6%
Sleep Health	Insufficient Sleep (% of adults ages 65+)	++	36	26.8%	26.0%
Tobacco Use	Smoking (% of adults ages 65+)	++	40	10.7%	8.9%
HEALTH OUTCOMES*		+	43	-0.539	—
Behavioral Health	Drug Deaths (deaths per 100,000 adults ages 65+)*	—	—	4.8	8.4
	Excessive Drinking (% of adults ages 65+)	++++	3	4.3%	7.4%
	Frequent Mental Distress (% of adults ages 65+)	++	39	8.8%	8.1%
	Suicide (deaths per 100,000 adults ages 65+)	+++	27	17.3	16.9
Mortality	Early Death (deaths per 100,000 adults ages 65-74)	+	50	3,024	2,072
	Early Death Racial Disparity (ratio)*	—	—	1.4	1.6
Physical Health	Falls (% of adults ages 65+)	++++	14	26.2%	27.1%
	Frequent Physical Distress (% of adults ages 65+)	++	36	15.4%	14.5%
	High Health Status (% of adults ages 65+)*	+	49	32.6%	43.5%
	Multiple Chronic Conditions (% of Medicare beneficiaries ages 65-74)	+	44	53%	46%
	Obesity (% of adults ages 65+)	+	44	33.6%	29.3%
	Teeth Extractions (% of adults ages 65+)	+	47	20.0%	13.4%
OVERALL		+	50	-0.917	—

* Value is a summation score. Higher scores are healthier.

+ Non-ranking measure.

— Indicates data missing or suppressed.

For measure definitions, including data sources and years, visit AmericasHealthRankings.org.

Rating	Rank
++++	1-10
+++	11-20
++	21-30
+	31-40
—	41-50

SENIOR REPORT 2022 AmericasHealthRankings.org

Memorial Health System
Community Health Needs Assessment

UNITED HEALTH FOUNDATION | AMERICA'S HEALTH RANKINGS® HEALTH OF WOMEN AND CHILDREN REPORT 2021

Mississippi

State Health Department Website: msdh.ms.gov



Summary

Strengths:

- Low prevalence of excessive drinking among women
- High enrollment in early childhood education
- Low prevalence of youth alcohol use

Challenges:

- High percentage of children in poverty
- High child mortality rate
- High prevalence of physical inactivity among women

Highlights:

WIC COVERAGE

▲19% from 49.2% to 58.7% of eligible children ages 1-4 between 2016 and 2018

LOW BIRTH WEIGHT

▲9% from 11.3% to 12.3% of live births between 2014 and 2019

SMOKING

▼28% from 26.4% to 18.9% of women ages 18-44 between 2013-2014 and 2018-2019

TEEN SUICIDE

▲97% from 5.9 to 11.6 deaths per 100,000 adolescents ages 15-19 between 2012-2014 and 2017-2019

Women

Measures	Rating	State Rank	State Value	U.S. Value
SOCIAL AND ECONOMIC FACTORS*	+	48	-0.996	—
Community and Family Safety				
Intimate Partner Violence Before Pregnancy*		—	5.5%	3.0%
Violent Crime	++++	14	278	379
Economic Resources				
Concentrated Disadvantage	+	50	46.5%	25.1%
Food Insecurity	+	50	15.7%	11.1%
Gender Pay Gap*	++	37	77.4%	81.0%
Poverty	+	50	25.1%	15.2%
Unemployment	+	50	5.8%	3.6%
Education				
College Graduate	+	47	26.5%	35.7%
Social Support and Engagement				
Infant Child Care Cost*	++++	1	7.6%	12.5%
Residential Segregation — Black/White	++++	3	50	62
Voter Participation	+++	14	64.6%	61.7%
PHYSICAL ENVIRONMENT*	+	47	-0.446	—
Air and Water Quality				
Air Pollution	++	31	7.8	8.3
Drinking Water Violations	+	48	6.3%	0.8%
Household Smoke	+	47	20.2%	14.0%
Risk-screening Environmental Indicators Risk Score	++++	16	1,367,879	361,963,972
Water Fluoridation	++	35	60.7%	73.0%
Climate Change				
Climate Change Policies*	++	36	0	—
Transportation Energy Use*	+	43	11.5	8.7
Housing and Transportation				
Drive Alone to Work	+	50	85.3%	75.4%
Housing With Lead Risk	++++	10	11.0%	17.6%
Severe Housing Problems	+++	29	15.4%	17.5%

Children

Measures	Rating	State Rank	State Value	U.S. Value
SOCIAL AND ECONOMIC FACTORS*	++	40	-0.293	—
Community and Family Safety				
Child Victimization*	++	35	13.4%	8.9%
Economic Resources				
Children in Poverty	+	50	28.1%	16.8%
Children in Poverty Racial Disparity	++++	14	3.0	3.0
High-speed Internet	+	49	87.0%	92.6%
Students Experiencing Homelessness	++++	9	1.5%	3.0%
WIC Coverage	++++	9	58.7%	53.9%
Education				
Early Childhood Education	++++	4	60.4%	48.9%
Fourth Grade Reading Proficiency	++	40	31.5%	34.3%
High School Graduation	+++	29	85.0%	85.8%
High School Graduation Racial Disparity	++++	4	6.5	15.1
Social Support and Engagement				
Adverse Childhood Experiences	+	42	18.3%	14.8%
Foster Care Instability	+++	23	15.8%	16.0%
Neighborhood Amenities	+	50	14.5%	37.4%
Reading, Singing or Storytelling	+	50	45.2%	55.9%
PHYSICAL ENVIRONMENT*	+	47	-0.446	—
Air and Water Quality				
Air Pollution	++	31	7.8	8.3
Drinking Water Violations	+	48	6.3%	0.8%
Household Smoke	+	47	20.2%	14.0%
Risk-screening Environmental Indicators Risk Score	++++	16	1,367,879	361,963,972
Water Fluoridation	++	35	60.7%	73.0%
Climate Change				
Climate Change Policies*	++	36	0	—
Transportation Energy Use*	+	43	11.5	8.7
Housing and Transportation				
Drive Alone to Work	+	50	85.3%	75.4%
Housing With Lead Risk	++++	10	11.0%	17.6%
Severe Housing Problems	+++	29	15.4%	17.5%

Rating	Rank
+++++	1-10
++++	11-20
+++	21-30
++	31-40
+	41-50

Women

Measures	Rating	State Rank	State Value	U.S. Value
CLINICAL CARE*	+	46	-0.675	—
Access to Care				
Adequate Prenatal Care	++++	14	80.8%	76.7%
Avoided Care Due to Cost	+	47	25.3%	18.8%
Publicly-funded Women's Health Services	+++	30	23%	29%
Uninsured	+	48	20.9%	12.9%
Women's Health Providers	+	48	32.3	48.5
Preventive Clinical Care				
Cervical Cancer Screening	+++++	1	86.9%	79.9%
Dental Visit	+	49	59.3%	67.6%
Flu Vaccination	+	45	26.6%	31.5%
Postpartum Visit*	—	—	89.0%	90.7%
Well-woman Visit	+++	21	74.8%	73.2%
Quality of Care				
Breastfeeding Initiation*	+	48	65.6%	84.0%
Dedicated Health Care Provider	++	38	69.5%	71.1%
Low-risk Cesarean Delivery	+	50	30.7%	25.6%
Maternity Practices Score	++	40	73	79
BEHAVIORS*	+	46	-0.887	—
Nutrition and Physical Activity				
Exercise	+	41	18.6%	21.5%
Fruit and Vegetable Consumption	+	45	75%	10.4%
Physical Inactivity	+	50	31.1%	22.6%
Sexual Health				
Chlamydia	+	48	2,529	1,743
High-risk HIV Behaviors	++++	11	8.6%	9.7%
Unintended Pregnancy*	—	—	471%	30.6%
Sleep Health				
Insufficient Sleep	++	32	37.5%	36.1%
Tobacco Use				
E-cigarette Use*	+++	25	5.9%	5.3%
Smoking	++	35	18.9%	14.3%
Smoking During Pregnancy	++	28	8.5%	6.0%
HEALTH OUTCOMES*	++	35	-0.652	—
Behavioral Health				
Drug Deaths*	+++++	10	12.6	20.7
Excessive Drinking	+++++	3	12.1%	19.2%
Frequent Mental Distress	++	31	20.3%	18.1%
Illicit Drug Use	+++++	7	8.8%	10.8%
Postpartum Depression*	—	—	22.1%	13.4%
Mortality				
Maternal Mortality*	—	—	—	20.1
Mortality Rate	+	48	155.0	97.2
Physical Health				
Frequent Physical Distress	++++	19	8.4%	8.4%
High Blood Pressure	+	50	22.4%	10.6%
High Health Status*	+	45	49.9%	53.8%
Maternal Morbidity*	—	—	5.8	6.6
Multiple Chronic Conditions	++	40	6.1%	4.4%
Obesity	+	50	43.5%	30.0%
OVERALL — WOMEN*	—	—	-0.741	—

* Overall and category values are derived from individual measure data to arrive at total scores for the state. Higher scores are considered healthier and lower scores are less healthy.

* Measure was not included in the calculation of overall or category values.

— Data not available, missing or suppressed.

For measure descriptions, source details and methodology, visit www.AmericasHealthRankings.org.

Children

Measures	Rating	State Rank	State Value	U.S. Value
CLINICAL CARE*	++	38	-0.259	—
Access to Care				
ADD/ADHD Treatment	+++++	1	6.6%	3.0%
Pediatricians	+	46	63.7	104.6
Uninsured	++	36	6.1%	5.7%
Preventive Clinical Care				
Childhood Immunizations	++++	11	80.0%	75.8%
HPV Vaccination	+	50	30.5%	54.2%
Preventive Dental Care	+	43	75.0%	77.5%
Well-child Visit	+	49	74.3%	80.7%
Quality of Care				
Adequate Insurance	+++++	8	71.2%	66.7%
Developmental Screening	++	34	31.5%	36.9%
Medical Home	++	37	47.3%	46.8%
BEHAVIORS*	+	50	-1.391	—
Nutrition and Physical Activity				
Breastfed	+	50	18.1%	25.6%
Food Sufficiency	+	50	58.0%	69.8%
Physical Activity	+++++	5	26.8%	20.6%
Soda Consumption — Youth*	—	—	173%	9.3%
Sexual Health — Youth				
Dual Contraceptive Nonuse*	—	—	91.6%	90.9%
Teen Births	+	49	29.1	16.7
Sleep Health				
Adequate Sleep	+	49	55.2%	66.1%
Sleep Position*	—	—	69.4%	79.6%
Tobacco Use — Youth				
Electronic Vapor Product Use*	—	—	21.4%	32.7%
Tobacco Use	+	46	7.1%	4.0%
HEALTH OUTCOMES*	+	49	-0.695	—
Behavioral Health				
Alcohol Use — Youth	+++++	6	8.0%	9.2%
Anxiety	+++++	6	7.7%	9.1%
Depression	++++	20	3.8%	3.9%
Flourishing	++	34	68.4%	69.1%
Illicit Drug Use — Youth	+++++	5	6.7%	8.4%
Teen Suicide*	—	—	11.6	11.2
Mortality				
Child Mortality	+	49	41.8	25.4
Infant Mortality	+	50	8.6	5.7
Physical Health				
Asthma	+	48	10.1%	7.5%
High Health Status*	+	49	87.1%	90.4%
Low Birthweight	+	50	12.3%	8.3%
Low Birthweight: Racial Disparity	+++	27	2.0	2.1
Overweight or Obesity — Youth	+	48	38.4%	32.1%
OVERALL — CHILDREN*	—	—	-0.586	—

OVERALL — WOMEN AND CHILDREN*	—	-0.677	—
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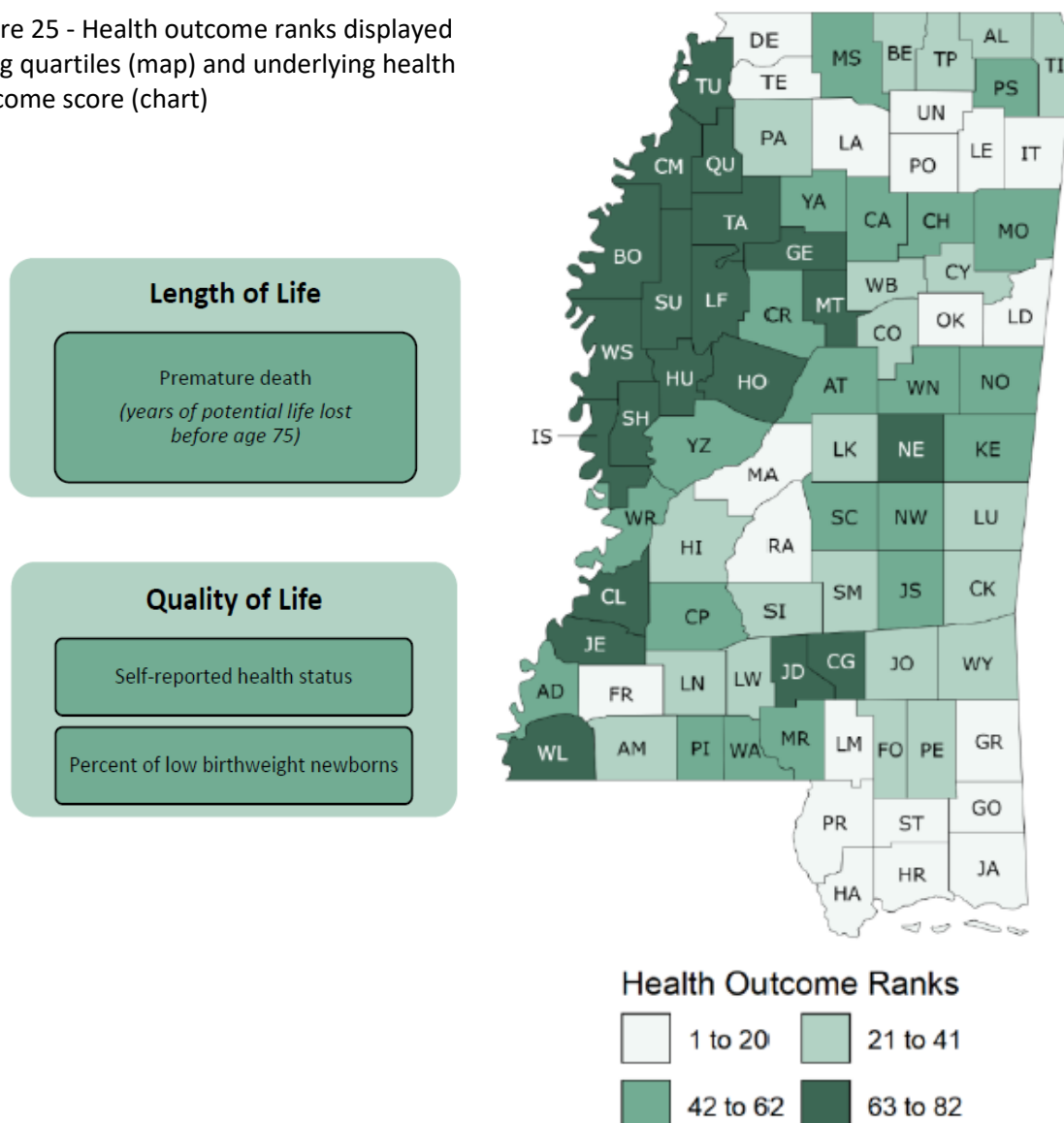
Memorial Health System

Community Health Needs Assessment

The Robert Wood Johnson Foundation supports programs across the United States, and one of those programs, in collaboration with the University of Wisconsin Population Health Institute, is County Health Rankings & Roadmaps which focuses on “Building a Culture of Health, County by County”. The program ranks each county within a state to help illustrate where each county compares to other counties within the state by asking what is keeping people healthy or making them sick within the community.

Per rankings, health outcomes (measured by both length and quality of life) ranked as follows in the primary and secondary service areas: Harrison – 9th, Hancock – 7th, Pearl River – 18th, Stone – 17th, Jackson – 8th, George – 16th, and Greene County – 6th.

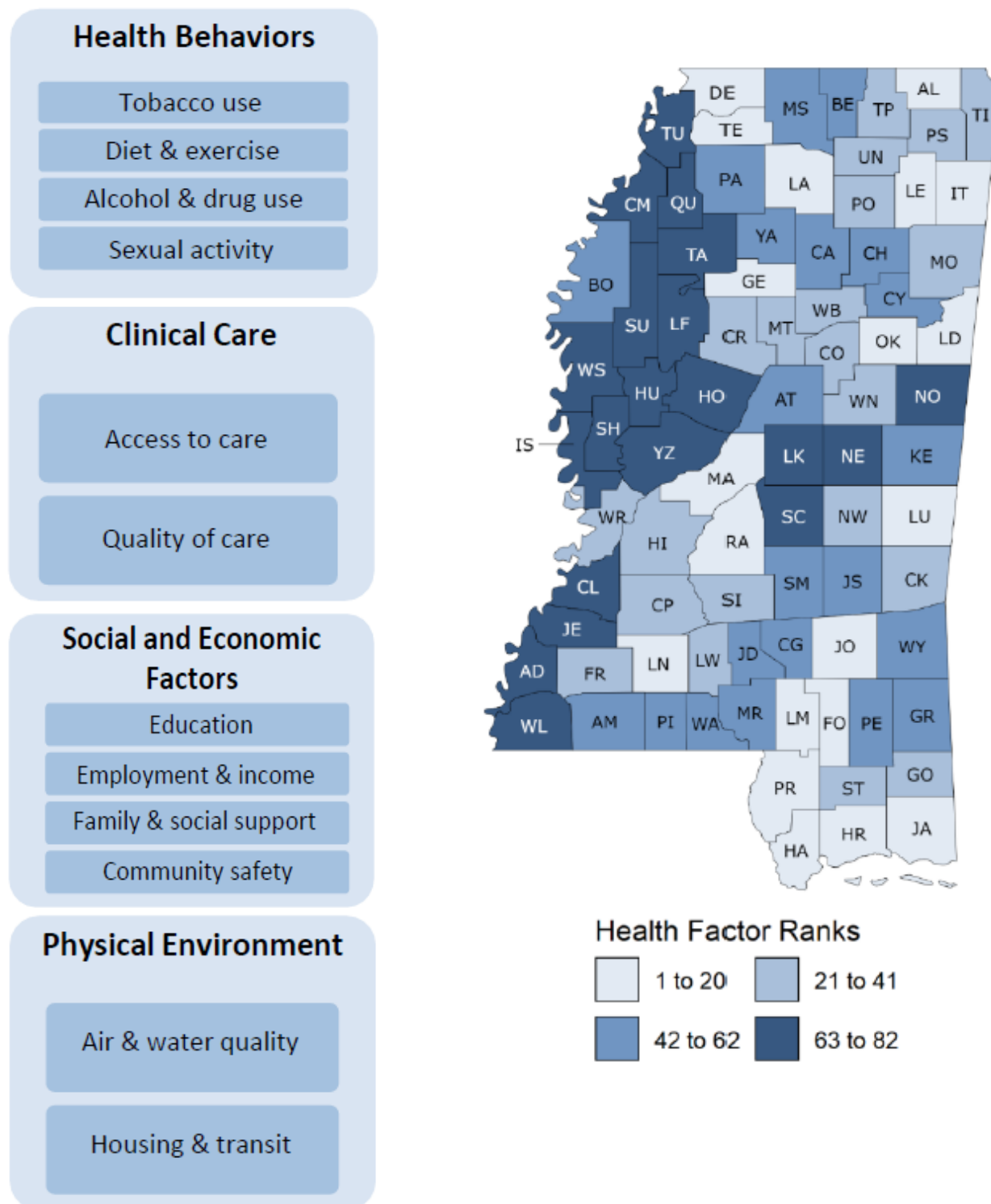
Figure 25 - Health outcome ranks displayed using quartiles (map) and underlying health outcome score (chart)



Memorial Health System Community Health Needs Assessment

Per rankings, health factors (measured by health behaviors, clinical care, social and economic factors, and physical environment) ranked as follows in the primary and secondary service areas: Harrison – 14th, Hancock – 9th, Pearl River – 17th, Stone – 36th, Jackson – 10th, George – 31st, and Greene County – 43th.

Figure 26 - Health factor ranks displayed using quartiles (map) and underlying health factor score (chart)



Memorial Health System
Community Health Needs Assessment

2022 County Health Rankings: National and Mississippi State Values for Ranked Measures

Measure	Description	US	MS	MS Minimum	MS Maximum
HEALTH OUTCOMES					
Premature death*	Years of potential life lost before age 75 per 100,000 population (age-adjusted).	7,300	11,300	7,200	18,200
Poor or fair health	Percentage of adults reporting fair or poor health (age-adjusted).	17%	22%	16%	37%
Poor physical health days	Average number of physically unhealthy days reported in past 30 days (age-adjusted).	3.9	4.1	3.2	5.8
Poor mental health days	Average number of mentally unhealthy days reported in past 30 days (age-adjusted).	4.5	5.3	4.4	6.1
Low birthweight*	Percentage of live births with low birthweight (< 2,500 grams).	8%	12%	7%	20%
HEALTH FACTORS					
HEALTH BEHAVIORS					
Adult smoking	Percentage of adults who are current smokers (age-adjusted).	16%	21%	14%	29%
Adult obesity	Percentage of the adult population (age 18 and older) that reports a body mass index (BMI) greater than or equal to 30 kg/m ² (age-adjusted).	32%	41%	33%	51%
Food environment index	Index of factors that contribute to a healthy food environment, from 0 (worst) to 10 (best).	7.8	3.8	0.0	8.1
Physical inactivity	Percentage of adults age 18 and over reporting no leisure-time physical activity (age-adjusted).	26%	37%	28%	52%
Access to exercise opportunities	Percentage of population with adequate access to locations for physical activity.	80%	52%	1%	79%
Excessive drinking	Percentage of adults reporting binge or heavy drinking (age-adjusted).	20%	16%	10%	17%
Alcohol-impaired driving deaths	Percentage of driving deaths with alcohol involvement.	27%	19%	0%	63%
Sexually transmitted infections	Number of newly diagnosed chlamydia cases per 100,000 population.	551.0	850.2	0.0	2,389.1
Teen births*	Number of births per 1,000 female population ages 15-19.	19	32	10	68
CLINICAL CARE					
Uninsured	Percentage of population under age 65 without health insurance.	11%	15%	11%	22%
Primary care physicians	Ratio of population to primary care physicians.	1,310:1	1,860:1	1,330:0	750:1
Dentists	Ratio of population to dentists.	1,400:1	2,030:1	1,220:0	970:1
Mental health providers	Ratio of population to mental health providers.	350:1	540:1	22,740:1	150:1
Preventable hospital stays*	Rate of hospital stays for ambulatory-care sensitive conditions per 100,000 Medicare enrollees.	3,767	5,013	1,759	9,858
Mammography screening*	Percentage of female Medicare enrollees ages 65-74 that received an annual mammography screening.	43%	41%	28%	51%
Flu vaccinations*	Percentage of fee-for-service (FFS) Medicare enrollees that had an annual flu vaccination.	48%	43%	17%	56%
SOCIAL & ECONOMIC FACTORS					
High school completion	Percentage of adults ages 25 and over with a high school diploma or equivalent.	89%	85%	66%	92%
Some college	Percentage of adults ages 25-44 with some post-secondary education.	67%	61%	29%	82%
Unemployment	Percentage of population ages 16 and older unemployed but seeking work.	8.1%	8.1%	5.3%	18.4%
Children in poverty*	Percentage of people under age 18 in poverty.	16%	26%	13%	53%
Income inequality	Ratio of household income at the 80th percentile to income at the 20th percentile.	4.9	5.4	3.8	8.1
Children in single-parent households	Percentage of children that live in a household headed by a single parent.	25%	37%	19%	71%
Social associations	Number of membership associations per 10,000 population.	9.2	12.6	0.0	27.2
Violent crime	Number of reported violent crime offenses per 100,000 population.	386	279	26	755
Injury deaths*	Number of deaths due to injury per 100,000 population.	76	93	55	160
PHYSICAL ENVIRONMENT					
Air pollution - particulate matter	Average daily density of fine particulate matter in micrograms per cubic meter (PM2.5).	7.5	9.2	7.0	10.6
Drinking water violations*	Indicator of the presence of health-related drinking water violations. 'Yes' indicates the presence of a violation, 'No' indicates no violation.	N/A	N/A	N/A	N/A
Severe housing problems	Percentage of households with at least 1 of 4 housing problems: overcrowding, high housing costs, lack of kitchen facilities, or lack of plumbing facilities.	17%	15%	8%	22%
Driving alone to work*	Percentage of the workforce that drives alone to work.	75%	85%	70%	93%
Long commute - driving alone	Among workers who commute in their car alone, the percentage that commute more than 30 minutes.	37%	33%	10%	60%

*Indicates subgroup data by race and ethnicity is available; *Not available in all states

DEMOGRAPHICS AND SOCIAL DETERMINANTS OF HEALTH OF PRIMARY SERVICE AREA (PSA)

Figure 27 - Social Media post on staying in MS for healthcare

Population:

Harrison County has a total population of 206,169 citizens, and Hancock County has a population of 47,339 citizens while the state of Mississippi has a total population of 2,981,835.² The overall population for Harrison County has seen an increase in the population growth rate of 3.83% over a 5-year trend. Over the same time span, Hancock County saw a slightly smaller increase in population growth of 2.85%. In comparison, the state of Mississippi has seen a slight decrease in its population growth rate of (0.25%) over the same 5-year trend, while the United States saw an increase of approximately 2.51% respectfully.³



Demographics:

Demographics are the statistical characteristics of human populations used to identify markets. Collecting this type of data can be very informative because often the demographics of a patient have an impact on the treatment plan. The American Medical Association echoes this sentiment in their article on how to “Improve health equity by collecting patient demographic data”, by mentioning that “collecting demographic data can help improve the quality of care for all patients because it helps practices: 1) Identify and address differences in care for specific populations, 2) Distinguish which populations do not achieve optimal interventions, 3) Assess whether the practice is delivering culturally competent care, and 4) Develops additional patient-centered services”.

Sex and Age:

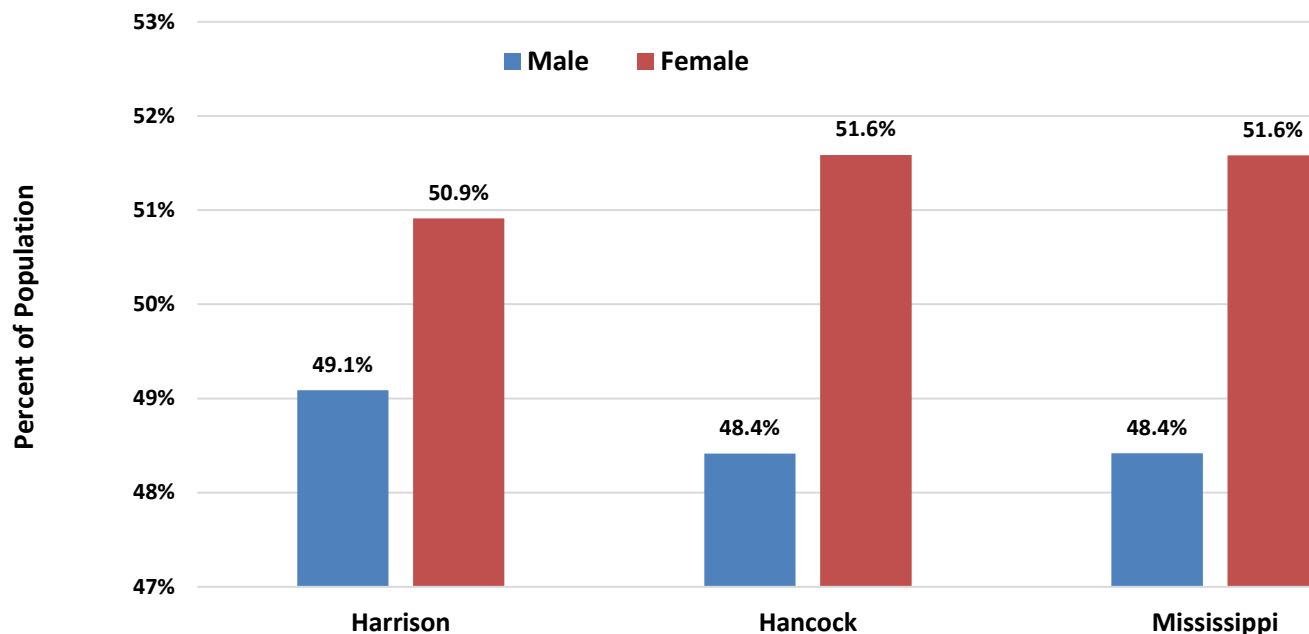
Further analysis of Harrison County’s population shows that it is 49.1% male and 50.9% female, and Hancock County’s is 48.4% male and 51.6% female whereas the state average is 48.4% male and 51.6% female (Figure 29, next page). Harrison and Hancock County have a median age of 36.5 and 44.7 years, which compares to the state’s median age of 37.7 years.⁴ Hancock County’s population is behind the state in most age range categories before the age of 45 but is ahead of the state in most categories age 50 and up (Figure 30, next page) meaning the population overall is older than at the state level. This is important information for MHS due to the higher cost of care for an aging population. In contrast, Harrison County is generally in line with state averages.

² U. S Census Bureau, 2019 American Community Survey 5-year Estimates, Table DP05

³ U. S Census Bureau, 2019 American Community Survey 5-year Estimates, Table DP05

⁴ U. S Census Bureau, 2019 American Community Survey 5-year Estimates, Table S0101

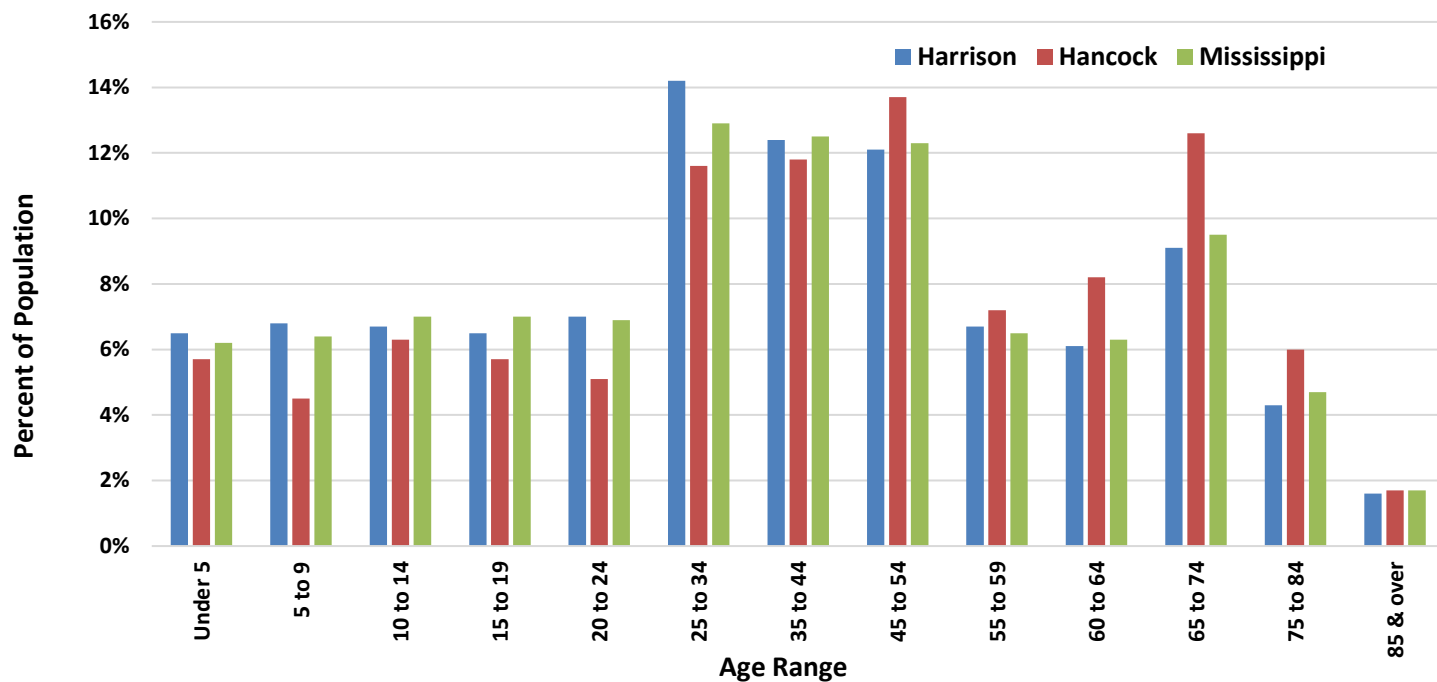
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Sex Ratio - Male to Female

Source: U.S Census Bureau, 2016-2020 American Community Survey 5-Year Estimates, Table DP05

Figure 28 - Sex Comparison – Harrison & Hancock County and Mississippi
Figure 29 - Population by Age Group – Harrison & Hancock County and Mississippi

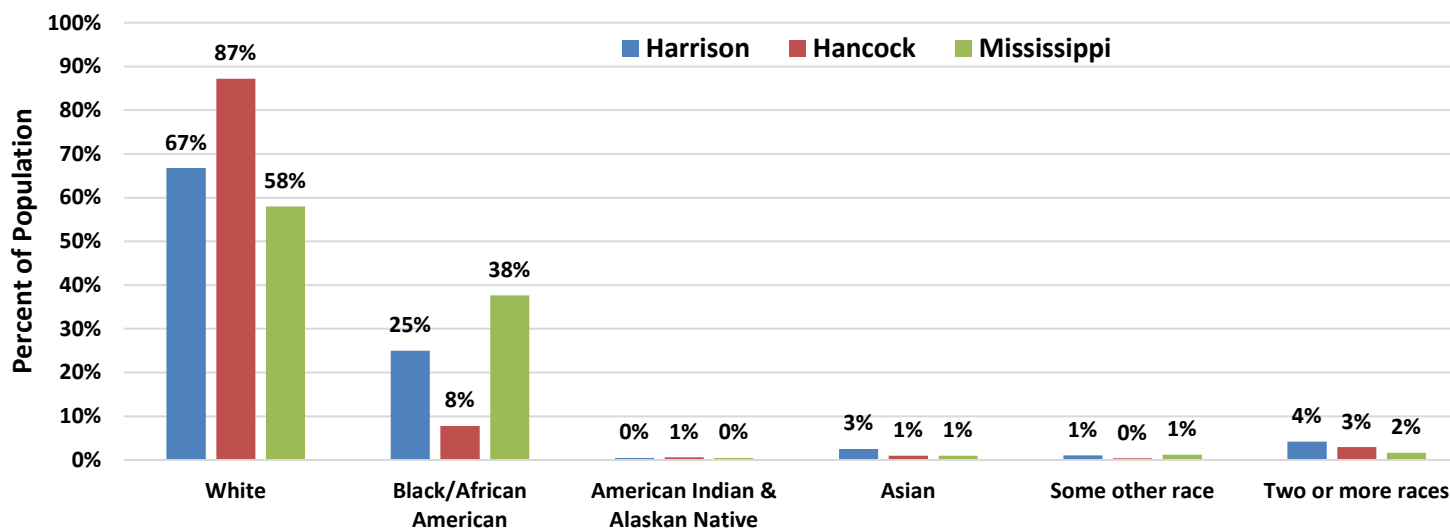


Source: Source: U.S Census Bureau, 2016-2020 American Community Survey 5-Year Estimates, Table DP05

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Racial Mix and Ethnic Background:

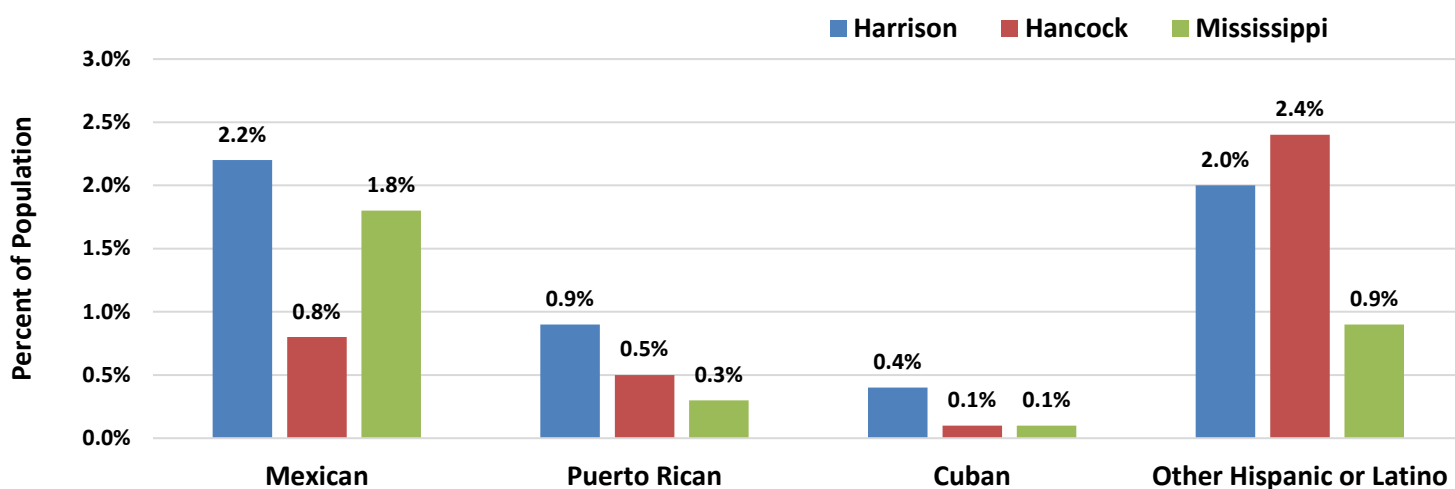
The racial mix of the citizens of Hancock County is less diverse than the population of Harrison County, and both are less diverse than the state of Mississippi (Figure 31). The Hispanic and Latino population in Harrison and Hancock County is higher than the state of Mississippi with both having a population mix of 5.5% and 3.8% compared to 3.1% for the state (Figure 32).



Racial Mix

Source: U.S Census Bureau, 2016-2020 American Community Survey 5-Year Estimates, Table DP05

Figure 30 - Population by Racial Mix – Harrison & Hancock County and Mississippi
 Figure 31 - Hispanic or Latino Population – Harrison & Hancock County and Mississippi



Hispanic or Latino Population

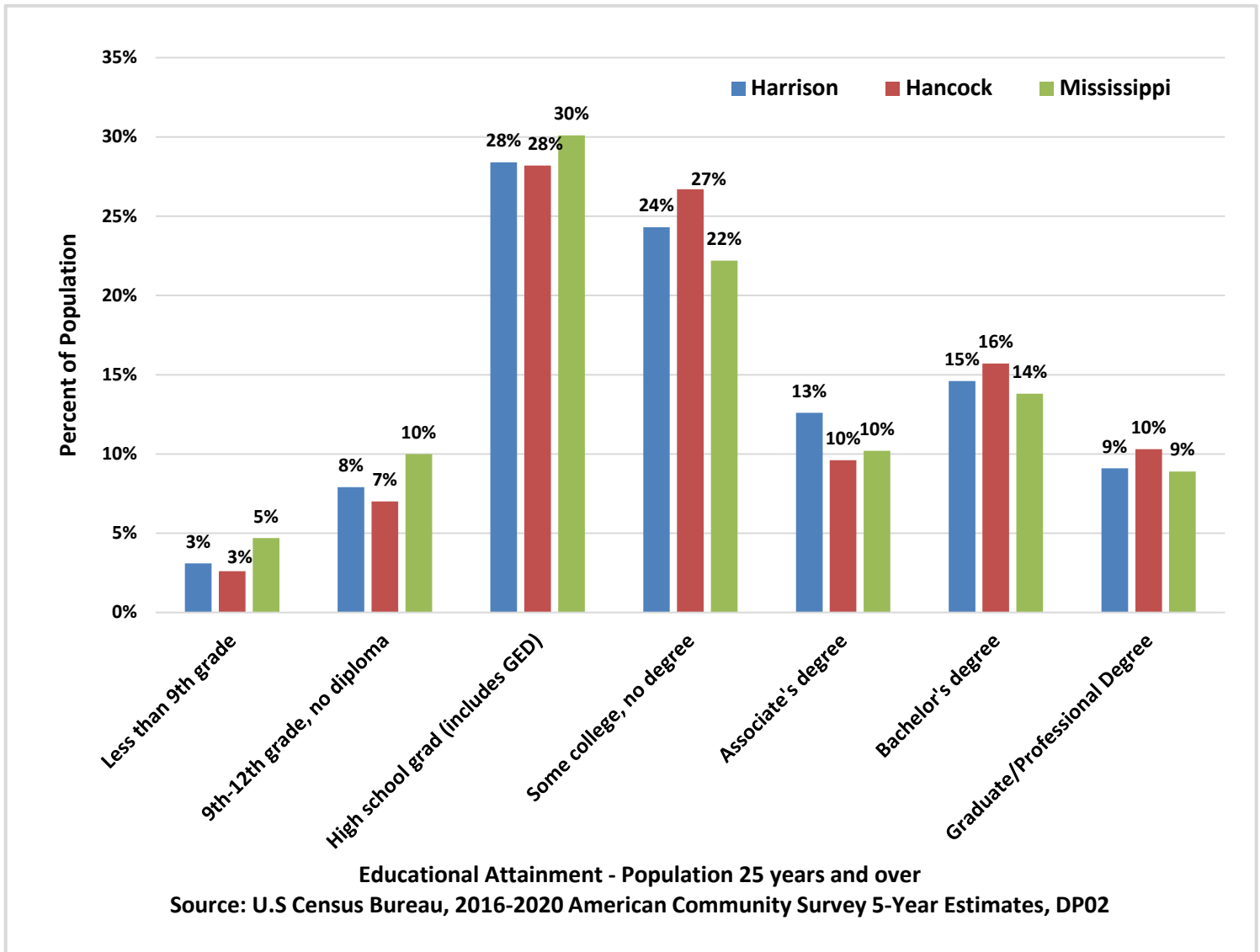
Source: U.S Census Bureau, 2016-2020 American Community Survey 5-Year Estimates, Table DP05

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Education Attainment:

Of the population 25 years of age and older, 89% of Harrison County residents have a high school diploma (includes GED) or higher compared to 90.5% of the residents for Hancock County. For the state of Mississippi that number is 85.2%. The state of Mississippi has a higher percentage of citizens earning a high school diploma than both counties, but of those high school graduates a higher percentage for both Harrison and Hancock County earn a higher degree (Figure 33).

Figure 32 - Education Attainment – Harrison & Hancock County and Mississippi



Population with a Disability:

What is a disability?

A disability is any condition of the body or mind (impairment) that makes it more difficult for the person with the condition to do certain activities (activity limitation) and interact with the world around them (participation restrictions).⁵

Individuals with a disability will face many obstacles during their lifetime. They are also more likely to have other medical issues, increased difficulty in accessing care, and will incur higher healthcare costs.

Disability impacts all of us, and each of us may experience a disability in our lifetime. The Centers for Disease Control and Prevention’s National Center on Birth Defects and Development Disabilities has developed a state-by-state fact sheet demonstrating how “Disability Impacts ALL of US” (Figure 35).⁶

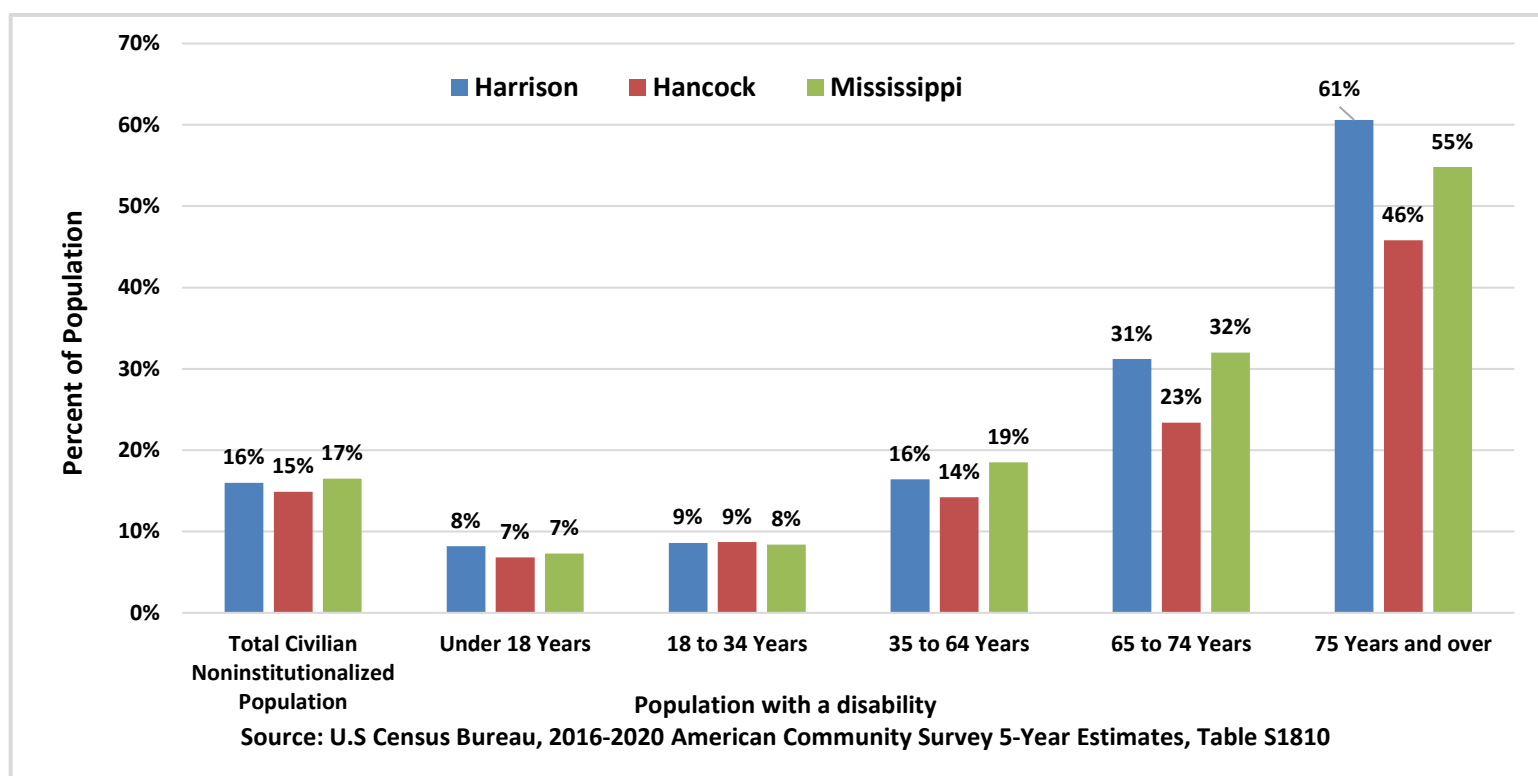


Figure 33 - Disability Status for Harrison & Hancock County and Mississippi per U.S. Census Bureau

Figure 34 - Disability Impacts ALL of US – CDC’s National Center on Birth Defects and Development Disabilities – Mississippi fact sheet (see following page)

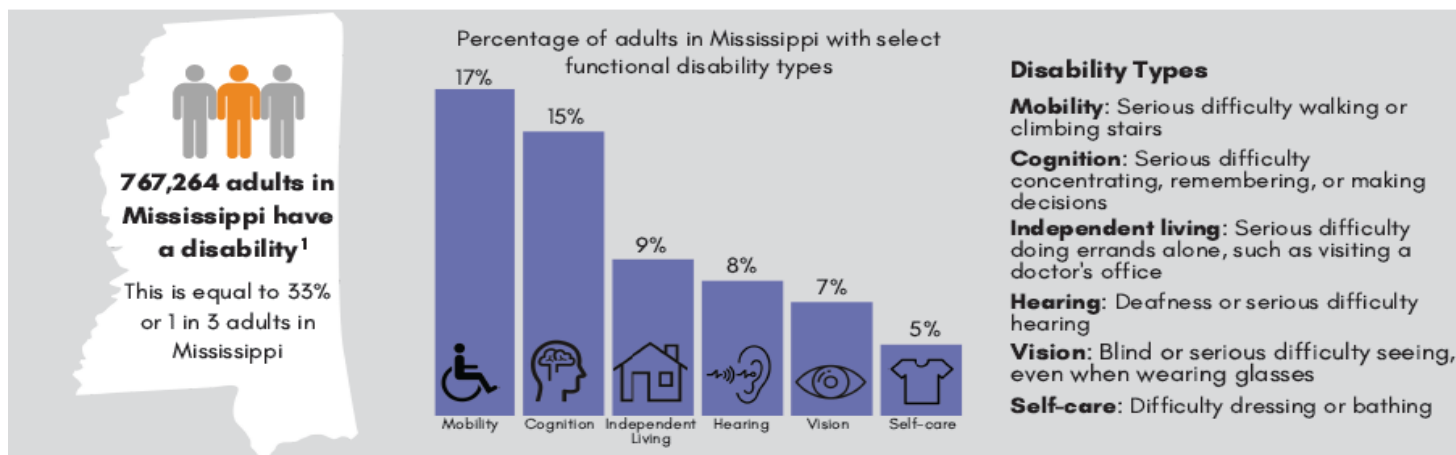
⁵ U.S. Centers for Disease Control and Prevention. (2022, August 14). Disability and Health Overview. Retrieved from CDC.gov: www.cdc.gov/ncbddd/disabilityandhealth/disability.html

⁶ U.S. Centers for Disease Control and Prevention. (2022, August 14). Disability Impacts All of Us – Factsheet. Retrieved from CDC.gov: www.cdc.gov/ncbddd/disabilityandhealth/impacts/florida.html

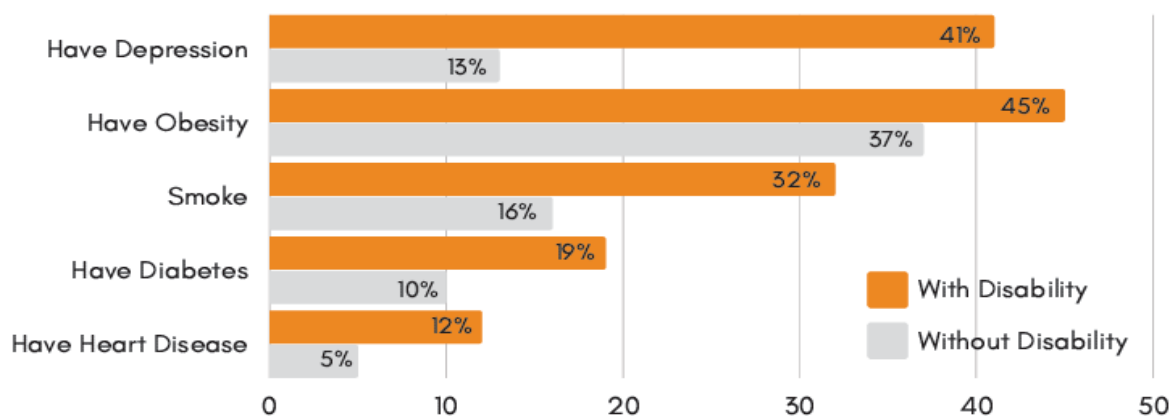
CDC's National Center on Birth Defects and Developmental Disabilities
DISABILITY IMPACTS MISSISSIPPI



Everyone can play a role in supporting more inclusive state programs, communities, and health care to help people with, or at risk for, disabilities be well and active in their communities. Join CDC and its partners as we work together to improve the health of people with disabilities.



Adults with disabilities in **Mississippi** experience health disparities and are more likely to...¹



Visit dhds.cdc.gov for more disability and health data across the United States.

\$ DISABILITY HEALTHCARE COSTS IN MISSISSIPPI²

- About **\$8.7 BILLION** per year, or up to **40%** of the state's healthcare spending
- About **\$15,483** per person with a disability



Learn how CDC and state programs support people with disabilities at www.cdc.gov/ncbddd/disabilityandhealth/programs.html.

NOTE: DATA ARE ROUNDED TO THE NEAREST WHOLE FIGURE. FOR MORE PRECISE PREVALENCE DATA, PLEASE VISIT [DHDS.CDC.GOV](https://dhds.cdc.gov).

1. DATA SOURCE: 2020 BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM (BRFSS).
 2. DISABILITY HEALTHCARE COSTS ARE PRESENTED IN 2017 DOLLARS AS REPORTED IN KHAVJOU, ET AL. STATE-LEVEL HEALTH CARE EXPENDITURES ASSOCIATED WITH DISABILITY. 2021. PUBLIC HEALTH REP.

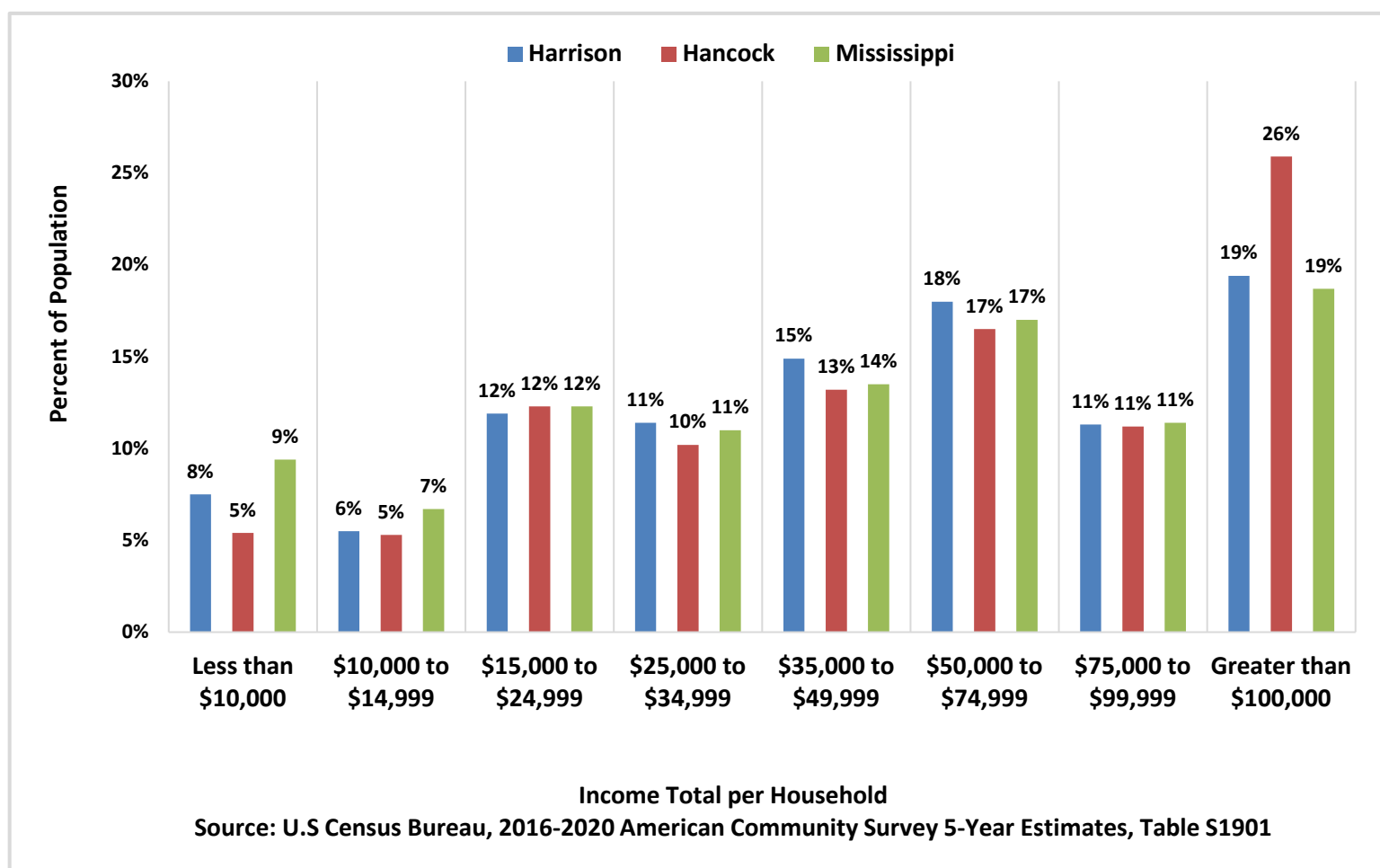


Economic Factors:

Income:

The median household income in Harrison and Hancock County is \$48,547 and \$54,860 compared to \$46,511 for the state of Mississippi.⁷ Harrison and Hancock County have a greater number of residents making \$50,000 or more when compared to the state of Mississippi. As a result of the higher overall income level in both counties compared to the state average there is a lower portion of residents living in poverty. Overall, 19.6% of all people in Mississippi live in poverty compared to 18.2% and 13.6% of all people in Harrison and Hancock County.⁸ For additional breakdowns of income totals per households see Figure 36.

Figure 35 - Income Total per Household – Harrison & Hancock County and Mississippi



⁷ U.S. Census Bureau, 2019 American Community Survey 5-year Estimates, Table S1901

⁸ U.S. Census Bureau, 2019 American Community Survey 5-year Estimates, Table S1701

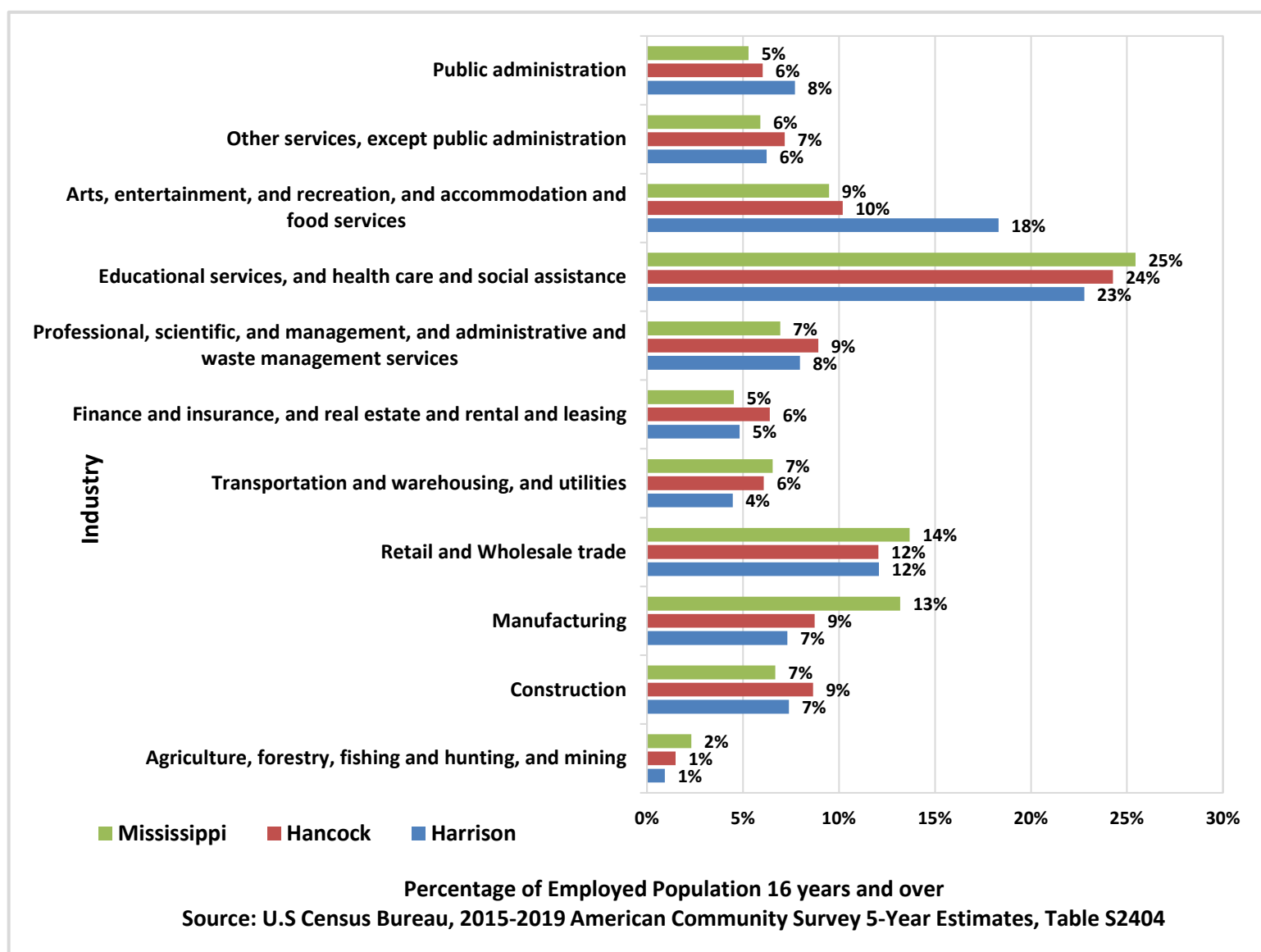
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Major Employers by Industry:

Major employers are in Education, Healthcare, Social Services, Manufacturing, Arts/Entertainment, and Retail/Wholesale trade. Figure 37 shows a comparison with the state of Mississippi between different labor groups identified by the U.S. Census Bureau.

According to the U.S. Census Bureau, Harrison County has a slightly higher unemployment rate at 8.8% and Hancock County has a slightly lower unemployment rate at 6.1% compared to the state unemployment rate of 7.1%.

Figure 36 - Employed Population by Industry Type 16-years and over – Harrison & Hancock County and Mississippi



INPUT FROM THE COMMUNITY

Community Surveys:

Memorial Health System wanted to better understand the health status of its service area through the mindset of the community. As a result, a community health survey was developed by the hospital. Members of the public were invited to participate in the online survey. The data collected from the survey was part of the input used by the steering committee in establishing the top health priorities for the health system for the next three years.

Figure 37 - The Association for Community Health Improvement's Community Health Assessment Toolkit Nine-step Pathway – Sponsored by Centers for Disease Control and Prevention



Community Focus Group:

A community focus group was held at Memorial Hospital at Gulfport on Friday, August 5, 2022. The participants in the group were carefully selected because they each represented a specific segment of the populations served. In addition, they can act as a continuous conduit between the community and the leadership of the hospital. These participants contributed to a structured discussion which was impartially facilitated by a healthcare consultant from Carr, Riggs, & Ingram LLC of Ridgeland, MS.

This focus group provided a deliberative venue for learning, trust-building, creative problem solving, and information gathering which ultimately served as a valuable resource for the CHNA Steering Committee as it developed the hospital's health priorities for the next three years. Since the focus group was based on open communication and critical deliberation, it will hopefully lead to improved community relations, trust and collaborative partnerships as the hospital strives to improve the overall health of the community.

Figure 38 - Photo of community forum meeting



Memorial Health System Community Health Needs Assessment

Notes from Community Forum

Healthy living - Recommendation that Memorial leads the effort for healthy living education, outreach, and campaigns. Overall – take care of your health initiatives to aid in prevention and preemption. Many agreed with healthy lifestyle but acknowledges 80% of single female households do not have the funds to live a healthy lifestyle. **Food deserts** are an issue. Food, medicine, rent, electricity bills are a higher priority, and it is easier to go to fast food restaurants.

One attendee discussed that 80% of the people they serve are single females who are HOH, working but not making enough to live a healthy lifestyle. Another attendee followed up by mentioning care starts at home with breaking patterns of parents – unhealthy breakfast, pizza, Red Bull drinks, packets of donuts. Perpetuating generationally. ALICE – Asset Limited Income Restraint and Employed. Growing segment of ALICE in elders.



Figure 39 - Photo of community forum meeting

Additional Comments from attendees:

- MS recently passed MS Healthy food and family's program in conjunction with American Heart Association – SNAP will double their money to purchase fruit and vegetables through MS Department of Agriculture.
- It was suggested that health should be made mandatory in schools like math and English are required. Push health in schools. – Kids math, science, English is mandatory so should health. Tell them about life expectancy, diabetes issues. Close the gaps. Policy work, education with kids. Teach them how to cook beneficial meals.
- Focus to keep care local. Keep patients in our community. Goal is to take care of them here. Family Medicine doctors: can look at patient pools that have certain diagnosis and navigate them to better living. 10% healthier – invite them into a voluntary program. Work with a doc, follow up with 10 months and see a 10% improvement in their care.

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- Group discussed that another healthcare disparity is a person who has joint pain who can't move/walk = obesity and heart disease. Lack of **Exercise** is an issue. Healthcare should be provided in the community; hospitals should not only focus on sick care. Healthcare disparity in joint pain, that leads to heart disease, etc. because they can't move. Movement is life is an initiative started by MHS ortho surgeons. They don't have to come to the hospital to get their care. Women Latinos AA women to teach them to work through joint pain. Program improved joint pain without taking any medications at all.
- Parts of Gulfport Food Deserts – **Transportation** is another major issue. Not just financial implications but stigma for people that must ask for help. It was mentioned in discussion that Dollar General stores are primary sources of food. Dollar Tree to introduce fresh produce in certain jurisdictions.
- Attendees indicated more **affordable housing** is needed for family stability as many are making minimum wage. Providing housing for individuals that can support our job efforts is major component of tourism, gaming, and those individuals will need healthcare. Those working make minimum wage and the cost of rental housing is not affordable. So healthcare is a stretch.

State recently introduced the 988-**suicide crisis** hotline initiative. Legislators focused on mental health. Developing trained crisis interventionists that will help navigate CIT – millions of dollars invested to recognize suicidal tendencies. Court liaisons = 60% of commitment. Adding peer support specialists in each region of the state – north, central, south. Looking at diversion center – law enforcement and clerk is an alternative to CSU. 23-hour 59-minute treatment. Goal is additional 8 CSU beds. Total is now 16 but capped at 12 due to workforce issues.

- Peer Respite Sites – adding 3 in the state
- Pine Belt took over Gulf Coast Mental Health and cannot operate at capacity due to staffing
- Other options are GPBH and Oceans
- Creating diversion centers that will offer 12 recliners and can hold patient for 23 hours and 59 minutes
- Adding 8 beds to CSU (in addition to current 16)

Mental health is an issue. City of Gulfport fire and police riding together in a pilot program – finding homeless camps, mother and child living in cars. Trying to find issues and help them. Seeing a lot of mental illness because they are out of meds, then turn to drugs and maybe crime. They see a lot of mothers with children who need medications and provide hotel stays to get them off the street. Partnered with non-profits such as Open Doors. Proactive approach. **Behavioral health** issues cause a relapse effect. The inability to have healthy living, lifestyle, wellness, and fitness. Physical health plays into mental health. Mental health is a disparity throughout the state as well as the southeast.

Drugs are an issue. Firefighter said– Seeing hard drugs, but prescription drugs is prevalent. People who can't afford their drugs are buying them on the street. Frequent flyers are usually drug seekers, etc. People can't pay for medications. One attendee familiar with jail system noted that people can get their medications while in jail but once they leave prison, they cannot afford medications.

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Language barriers - Culturally appropriate services are an issue. Trying to help diabetes prevention in Spanish. Magnolia Medical foundation addressed this disparity by teaching Spanish speaking community to prevent diabetes. Have touched hundreds. Start with base level of people that are in disparities, those that don't have insurance or a way to communicate or connect with institutions, transportation. Memorial has been putting up clinics in geographic areas, so that helps.

- 86% of Hispanic = diabetes
- Need to provide culturally appropriate education about diabetes
- Can't make appointments (during 8 – 5pm) because they work all the time

Diabetes - the State Health Improvement Plan is now available on the National Diabetes Obesity Research Institute (NDORI) website. It is devoted to addresses social determinants of health and diabetes disparity. Addresses how to cure Type 2 diabetes. There is no reason Memorial can't take the lead. Encouraged us to read health plan to understand and appreciate what is occurring. Attendee noted that if you are a patient enrolled here, social workers will help navigate the system. But, what about people who don't have access to us. If they don't know how to navigate it, then they can't get there. Diabetes foundation of MS – picked up CGM – glucose monitors and service dogs. BCBS created a grant in the Delta to create a wellness center. They created a gym and kitchen to show how to cook and gave classes. Gave membership - \$25 a month.

Attendee noted they are working with a Memorial Family Medicine physician, to do a meal prep program for youth and affordable. Healthy meal prep and tape it with the family. Stress and growing up. Vaping. Kids see a lot at home and mimic. Drugs, hunger, violence. ACES – Adverse Childhood Experiences. Unless there is some intervening event, they adopt bad habits. BGC is having to get counselors to help kids. Sometimes it is not a prevention but dealing with issues as they come.

MHS pointed out we are redeveloping our relationship with diabetes education and obesity initiative. Goal is to get the message to the right audiences. If someone is diagnosed, we have a strategic plan on where resources are available and easily walk patients through a program with group care. Residency program first one south of Hattiesburg – 20 family practice residents. Have residents assigned to population groups.

Attendee from 10% Healthier program asked Walmart for a diabetic food aisle and, if you're compliant, program wants to give them a discount. Eat Right Meal Prep, nutritionally appropriate with family of four or six can get a discount if they are compliant.

Attendee wondered why heart disease was not the leading cause of death in Stone County – population density was discussed.



Figure 40 - Photo of community forum meeting invite

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List of Community Forum Attendees

- Inez Kelleher, MD, Orthopedic Surgeon
- Ms. Virginia Kenny, retired nurse, Hancock Co./KAFB
- Billy Kelley, Fire Chief, City of Gulfport
- Kathy Springer, CEO, United Way of South Miss.
- Meagan Parker, Dir. of Corporate Compliance, Coastal Family Health Center
- Dr. Thad Carter, Memorial Board of Trustees
- Gary Fredericks, Vice-Chair, Memorial Board of Trustees
- Officer Keith Dolan, Gulfport
- Firefighter Aaron Rogers, Gulfport
- Mireya Alexander, Program Mgr., Gulf Coast MS Region of Magnolia Medical Foundation
- Lori Musa, RN, Emergency Preparedness Nurse, Miss. State Dept. of Health
- Eric Valles, Gulfport Firefighter
- Jonathan Green, Exec. Director, STEPS Coalition
- Emily Forte, Director of Operations, National Diabetes & Obesity Research Institute (NDORI)
- Greg Doyle, Harrison Co. EMA
- DeAnn Alewine, Bus. Dev. Rep., Gulfport Behavioral Health
- Kevin Felsher, Miss. State Representative
- Gene Thomas, Population Health
- Stephen Farrow, MD, Executive Director, National Diabetes & Obesity Research Institute (NDORI)
- Kededra Brown, Program Manager, STEPS Coalition
- Morgan Bogolin, Dir. Resource Development, Boys & Girls Clubs of the Gulf Coast
- Keva Scott, Ed.S., CEO, Boys & Girls Clubs of the Gulf Coast
- Stephen East, Bus Dev Director, Gulfport Behavioral Health
- Mike Sigman, Stone Co. EMA Deputy Director
- Jeremy Smallwood, Clinic Director, Gulf Coast Vascular Care

Note: Harrison, Hancock and Stone Counties were represented

Steering Committee members also attended:

- Kent Nicaud
- Kathy Ladner
- Angie Juzang
- Janet Stuart
- Lori Bickel
- Ashley Comstock
- Cindy Johnson
- Derrick Mason w CRI
- David Williams w CRI

Community Health Needs Assessment Steering Committee:

The committee is responsible for the oversight, design, and implementation of the CHNA. It will continue to collect information, establish community relationships, and oversee the budget and funding sources. Adhering to an agreed upon timeline, the committee will generate, prioritize, and select approaches to address community health needs.

The hospital's CEO developed a hospital steering committee. The appointed members are listed below.

- Kent Nicaud, MHS President and CEO
- Jennifer Duml, Senior Vice-President, MHS Patient Care Services / CNO
- Kathy Ladner, VP, MHS Patient Care/Quality/Patient Experience/Risk
- Angie Juzang, VP, MHS Marketing & Communications
- Lori Bickel, Director, MHS Marketing & Communications
- Ashley Comstock, Director, MHS Business Development
- Aimee Robertson, President, Memorial Hospital Foundation
- Lori Musa, RN, Emergency Preparedness Nurse, Miss. State Department of Health, District IX
- Brad Williams, MS Emergency Healthcare Coalition Planner, Miss. State Department of Health, Dist. IX
- Jeremy Hickman, MS Emergency Response Coordinator, Miss. State Department of Health, District IX
- Janet Stuart, Manager, MHS Marketing & Communications
- Julie Appel, RD, MHS Clinical Dietitian
- Amanda Woodruff, RD, MHS Clinical Nutrition Manager
- Brandy Williams, RN, MHS Clinical Outcomes Project Coordinator, Cardiac Admin
- Pam Davis, RN, Program Coordinator, MHS Diabetes Education Program
- Ashley Joyner, RN, MHS Neuroscience Care Coordinator
- Sonya Kortens, Unit Coordinator, Inpatient Nursing, MHS - Stone County
- Kristian Spear, Clinical Director, Memorial Physician Clinics
- Cindy Johnson, Director, MHS Case Management/Care Coordination
- Myron McCoo, VP, MHS Human Resources
- Derrick Mason, CPA, MHA, CHFP, Carr, Riggs, & Ingram (CRI)
- David Williams, CPA, MPH, FHFMA, Carr, Riggs & Ingram (CRI)

Note: Invited, but unable to attend

- Belinda Alexander, MD, Memorial Internal Medicine
- Hannah Gwin, MD, Memorial South Coast Internists
- Trinity Walker, Office Manager, MHS General Surgeons / Bariatrics



Figure 41- Photo of Steering Committee meeting

Top Health Issues Facing the Community:

Per the Centers for Disease Control and Prevention, incidence refers to the occurrence of new cases of disease or injury in a population over a specified period and incidence rate is a measure of incidence that incorporates time directly into the denominator. Thus, the incidence rate is a measure of disease that allows us to determine a person's probability of being diagnosed with a disease during a given period. In other words, incidence is the number of newly diagnosed cases of a disease and incidence rate is the number of new cases of a disease divided by the number of persons at risk for the disease. It is customary to use rates of per 100,000 population for deaths to make the rate comparable with counties that may have more or less than 100,000 residents. An example of how a diseases incidence rate is calculated: if over the course of a designated time period 645 residents within Harrison County with a population of 206,169 was diagnosed with heart disease whom did not have heart disease at the beginning of the designated time period, then the study would show the incidence rate of heart disease in this population was 312.85 ($(645/206,169 \times 100,000)$) meaning 313 individuals per 100,000 residents would have heart disease in this or a similar population during the designated time frame.

The table series will contain data from the MHS primary service area to assist MHS leadership team in identifying disease types that have the greatest impact on the patient population. This information will lend support to the leadership team in developing health strategies to focus on over the next three years by detailing the disease types within the community and validating if there is a need for the proposed strategy. The information contained in the data sets were pulled from the records of the Mississippi State Department of Health, and the categories of data were determined by MSDH. Due to the length of some of the data sets, this report will list the top events of a given query of data presented with any additional data available upon request. Each data set query will be described in each charts title to give the reader an understanding of what is included in the data set of each chart.

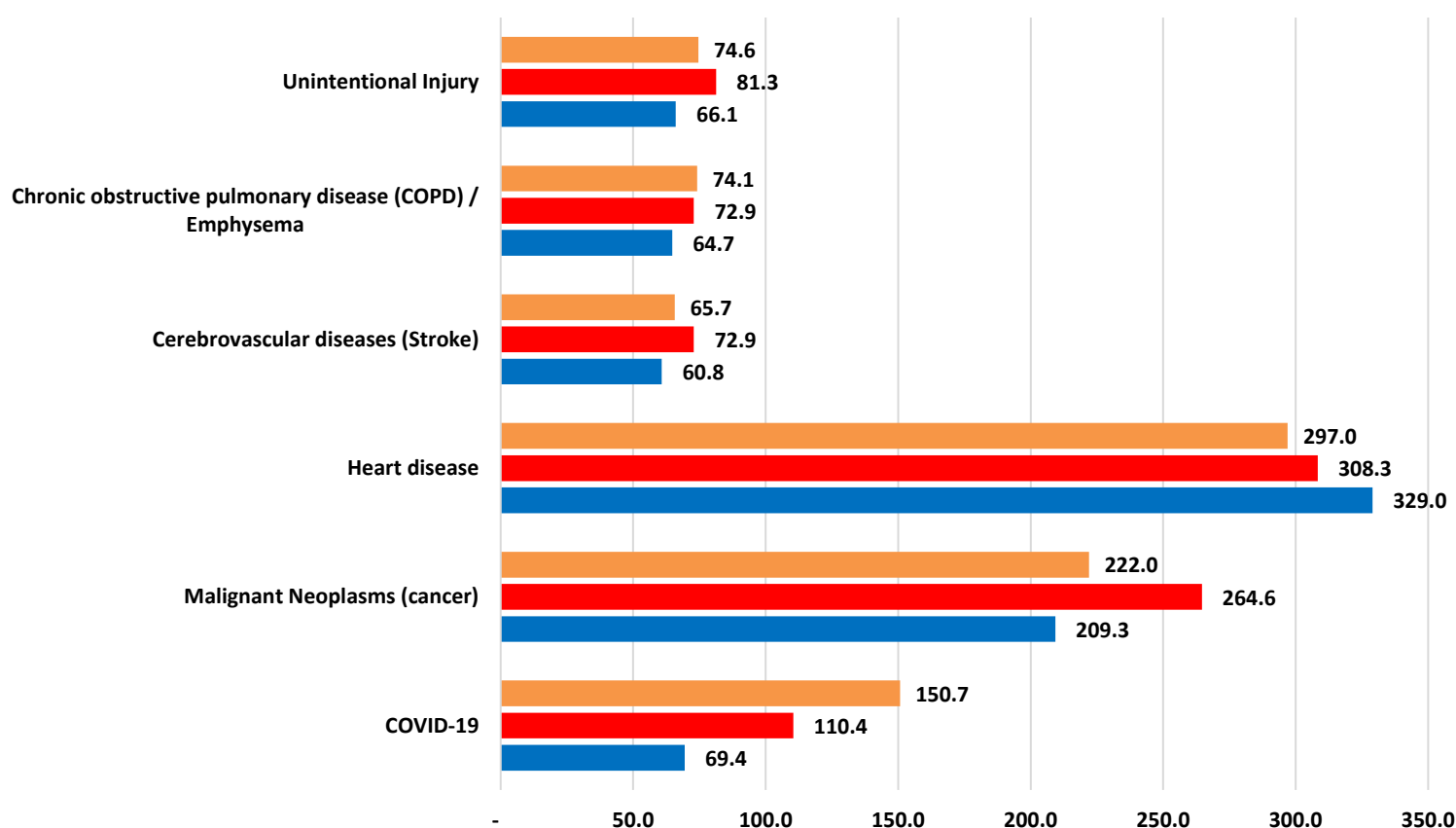
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Health Statistics:

The charts will include information from different scenarios to demonstrate how the disease process impacts the patient population. By understanding how a disease affects variants in the population MHS will be able to identify which segments of the community to focus specific strategies towards. The charts will look at the population, impacts between race, and impacts between sex in the primary service area.

Figure 42- Overall Leading Causes of Death includes All Sex, All Ages, All Race

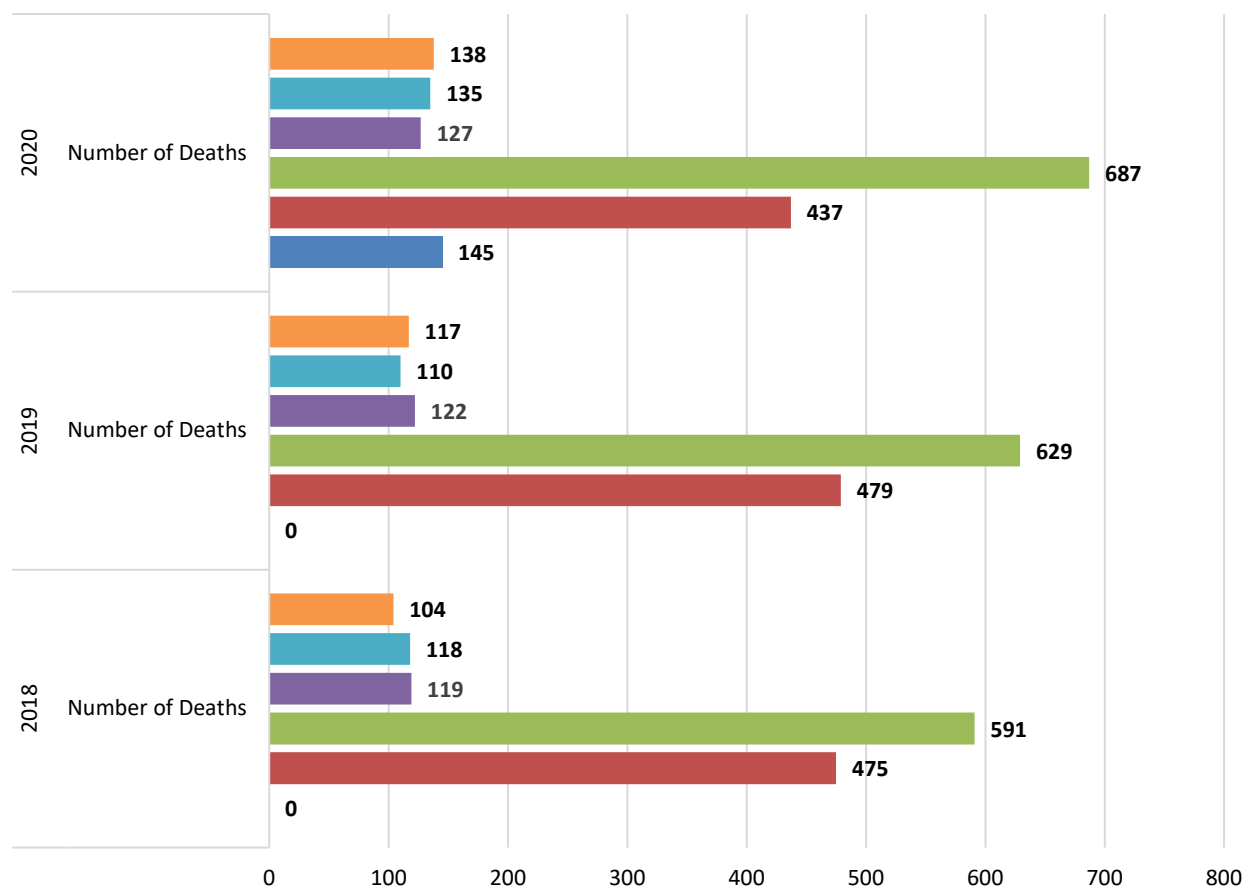
Top 6 Leading Causes of Death includes All Sex, All Ages, All Race



	COVID-19	Malignant Neoplasms (cancer)	Heart disease	Cerebrovascular diseases (Stroke)	Chronic obstructive pulmonary disease (COPD) / Emphysema	Unintentional Injury
Mississippi Rate per 100,000	150.7	222.0	297.0	65.7	74.1	74.6
Hancock Rate per 100,000	110.4	264.6	308.3	72.9	72.9	81.3
Harrison Rate per 100,000	69.4	209.3	329.0	60.8	64.7	66.1

Figure 43- Harrison leading causes of death 2018-2020 – all race, all sex, all ages by number of deaths

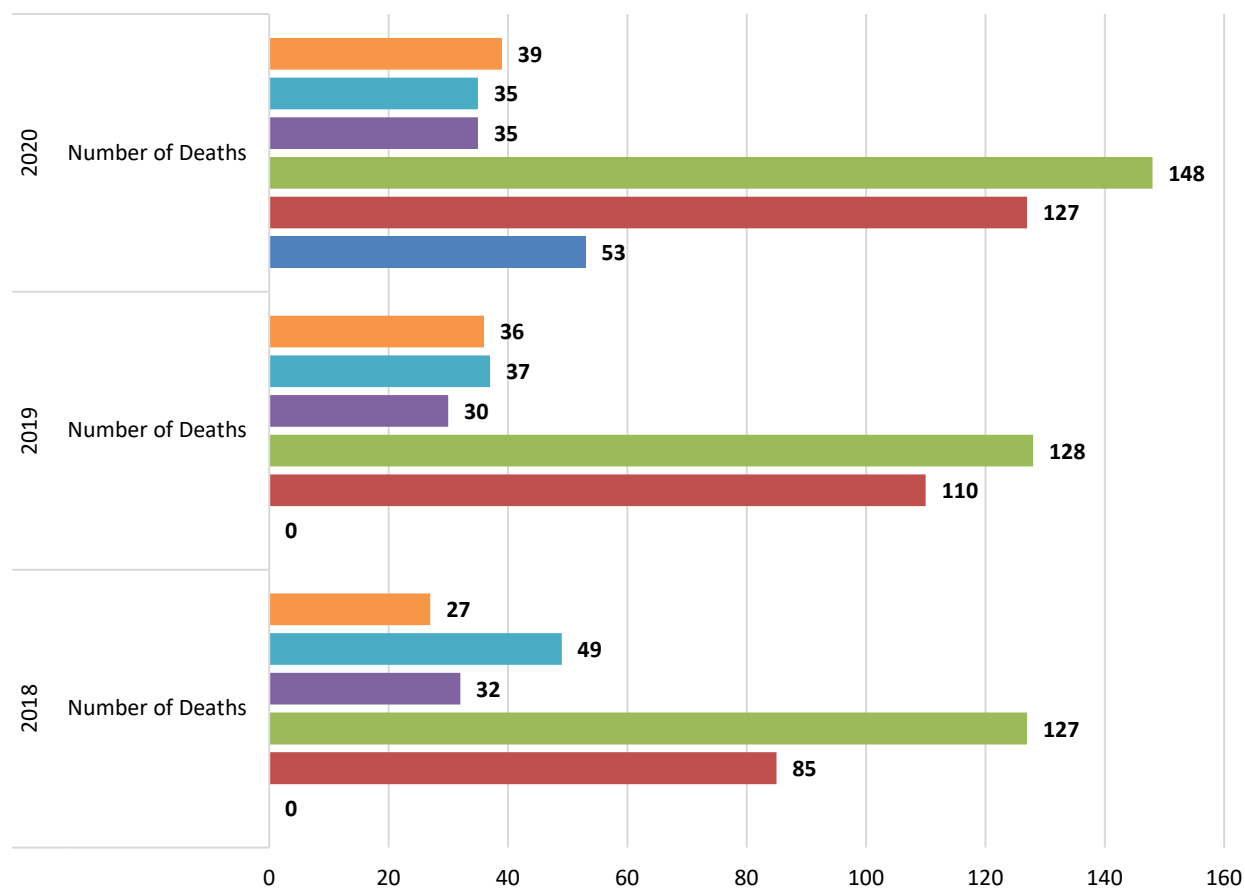
Top 6 Causes of Death Harrison County All Ages, All Race, All Sex by year



	2018	2019	2020
	Number of Deaths	Number of Deaths	Number of Deaths
Unintentional Injury	104	117	138
Chronic obstructive pulmonary disease (COPD) / Emphysema	118	110	135
Cerebrovascular diseases (Stroke)	119	122	127
Heart disease	591	629	687
Malignant Neoplasms (cancer)	475	479	437
COVID-19	0	0	145

Figure 44- Hancock leading causes of death 2018-2020 – all race, all sex, all ages by number of deaths

Top 6 Causes of Death Hancock County All Ages, All Race, All Sex by year



	2018	2019	2020
	Number of Deaths	Number of Deaths	Number of Deaths
Unintentional Injury	27	36	39
Chronic obstructive pulmonary disease (COPD) / Emphysema	49	37	35
Cerebrovascular diseases (Stroke)	32	30	35
Heart disease	127	128	148
Malignant Neoplasms (cancer)	85	110	127
COVID-19	0	0	53

Top Health Issues Identified by Community:

Memorial Health System's representatives spoke with community leaders and residents to give them an opportunity to voice their opinions on the health status and health needs of the community. Below is a summary of the top health issues identified by community members:

- ✓ COVID-19
- ✓ Diabetes
- ✓ Obesity
- ✓ Heart Disease & Hypertension
- ✓ Mental Health Issues
- ✓ Cancer

Thank You section:

This comprehensive assessment will allow us to better understand the needs and concerns of our community. Memorial Health System is proud to serve our community. As always, through our commitment to compassionate and mission-focused healthcare, we are honored to work closely with our collaborative partners in our community to provide outstanding healthcare and create a healthier world for the residents we serve. Dedication to the values of integrity, respect, empathy, and excellence has allowed us to continue to proudly serve our community.

Thanks to each of you who provided valuable insight into this report. Your participation in the data gathering, discussions, and decision-making process helped make this a true community effort which will better serve all segments of our population.

Figure 45- Thank you photo



2022 Community Health Needs Assessment: Implementation Strategy



Implementation Strategies:

After reviewing the quantitative data, as well as the top health issues identified through conversations with community members, MHS determined which issues would become the priority issues to be addressed over the next three years as part of the Community Health Implementation Plan. MHS considered each of the top health priorities identified by the community, however MHS does not have the resources to address all the priorities the community identified over the next three years. MHS does want the community to know that they are going to develop strategies to address the other health priorities noted from the community as those opportunities become feasible. For the current plan, MHS has outlined the following strategies for the next three years, however, due to the difficulties placed upon the health system from COVID-19 and the limitations this pandemic has placed on community interaction, the strategies below were developed with the mindsight that MHS may have to change/adapt each strategy as they continue to navigate the current ongoing public health emergency or a different one in the future. MHS's focus is to keep the community safe and informed while always striving to enhance the level of care delivered to their community. The initial health strategies are as follows:

1. Cancer Care:
 - a. Survivorship Program: Increase participation in the program. The Oncology Nurse Navigators will be communicating with physicians who are not oncology specialists and provide education about the program and encourage referrals.
 - b. MS Breast & Cervical Cancer Program: Oncology Nurse Navigators will evaluate and monitor participation with the BCCP by increasing awareness of the BCCP with Surgeons, Primary Care Physicians, OB/GYN and providing education to physicians and staff on the requirements and process for utilizing the BCCP.
 - c. Oncology Financial Advocacy: Initiate logistical restructuring of the oncology financial advocacy employees' roles and provide support and retraining as needed to improve the department's team focus. This will incorporate team members cross-training (across all cancer center clinics), interdisciplinary support, and improve productivity.
2. Diabetes Education Program
 - a. Increase awareness internally re: referrals to the Diabetes Management program among our Memorial primary care providers and local providers.
 - b. Increase public awareness (through social media) re: what diabetes is and how your PCP determines if you are pre-diabetic or diabetic. Promote healthy cooking via Kerry Scott, DO, CCMS (Certified Culinary Medicine Specialist).
 - c. Increase telehealth appointments for diabetic patients with transportation, health, or mobility issues.
3. Stroke Care and Heart Health
 - a. Our goal with community outreach is to prevent stroke and heart related conditions by increasing awareness of risk factors that cause these conditions. Risk factors include high blood pressure, high cholesterol, diabetes, obesity, unhealthy diet, physical inactivity, and smoking. This education will be provided through Memorial's social media and during in-person community events by collaborating with community partners.
 - b. Another goal with community outreach is to increasing awareness of signs and symptoms of heart attack and stroke and for our community to know when to call 911. Stroke and

heart attacks are medical emergencies. This education will be provided through Memorial's social media and during in-person community events.

- c. Improve access and referrals to Cardiac Rehabilitation. Cardiac rehabilitation is a medically supervised program designed to improve your heart health.
- d. Provide structural heart disease services. Structural heart disease is a term used to describe conditions in the heart's structure such as valves. A heart problem that is structural may be congenital or it can happen from wear and tear on the heart later in life.
- e. Improve access to Neurointerventional stroke specialists by increasing availability. Memorial is the only hospital in southern Mississippi that offers this specialty. These providers specialize in minimally invasive techniques for the diagnosis and treatment of conditions of the brain, head and neck, and spine.