

DELTA REGIONAL MEDICAL CENTER

Community Health Needs Assessment 2019



Delta Regional Medical Center Community Health Needs Assessment

Overview

Delta Regional Medical Center (DRMC) is a community, not-for-profit hospital, located in Greenville, MS. DRMC is Washington County's largest employer, with a workforce of over 900 people. The medical staff consists of approximately sixty physicians, representing a large variety of specialties.

DRMC is licensed for 325 beds, with services including acute and critical care, inpatient rehabilitation and adult and geriatric psychiatric services. Campuses include the main facility located at 1400 East Union Street, Greenville, Mississippi and the West Campus of DRMC at 300 South Washington Street, as well as various rural health and physician clinics.

Annually, DRMC has approximately 6,005 discharges, and provides over 73,467 outpatient visits, and 37,550 Emergency Department visits. Last year, DRMC provided over \$1,243,000 in charity care to the citizens of the community we serve, and incurred an additional \$28,999,424 in uncompensated care.

Community

Delta Regional's primary service area is Washington County, with a population of 47,747 as of 2019. We continue to draw roughly 85% of our patient base from Washington County and the remaining from 7 other surrounding counties in the Tri-State Delta Region with a total population of 132,000. DRMC serves a community that is unique to other parts of the country, as well as Mississippi. An area that once thrived from cotton now focuses more on corn production. With advancing technologies in agriculture we have transitioned from a high employee agricultural based economy to a low employee agricultural based economy. The once strong manufacturing base located in Washington County has dissipated due to both external and internal factors. As a result, the entire Delta continues to experience out migration, and Washington County has lost 3,390 people from its 2010 population of 51,137. This represents a 6.6% population loss over the eight year period for an average loss of almost 1% per year. The median household income in Washington County is \$30,071 which is far below the national average of \$61,937 and well below the state average of \$44,717. (*US Census Bureau, American Community Survey. 2018*) The population of single individuals and average household size is decreasing. The two growing industries continue to be the Service Sector (health, education, scientific, social, etc.) and the Government Sector. These Sectors generally rely on local tax funding with the exception of Delta Regional Medical Center.

As in much of Mississippi, and especially in rural areas, Washington County is home to vulnerable populations. More than double the national average, 33.7% of the population of Washington County lives in poverty (annual income of less than \$12,140), and 19.7% of the adult population has less than a high school education. Pressing community health needs exist that will be described in this document. (*US Census Bureau, American Community Survey. 2018*)

Methodology

Technology plays the biggest part in helping the steering committee develop a wide range of available needs assessments and reports. In addition to this, the committee convenes regularly to identify unmet community needs, monitor outcomes, and obtain advice from various allied healthcare professionals and leaders in our community. During the time period July – October 2019 DRMC employed several methods to obtain information from various resources and experts in their respective fields. Individuals external to our organization who serve on the committee are: Linette Perry, Regions Bank, Nathan Benzing, Greater Greenville Housing Development, Willie Lucas, M.D., retired internal medicine physician, Bob Williams, Executive Director of the YMCA, Linda Clark, Dean of the Greenville Higher Education Center, David Frierson, Minister

of Covenant Presbyterian Church and Ebony Williams, Owner MM&K Trucking. These individuals are all residents and advocates for public health who respectively serve the community of Washington County.

The community needs and statistics relating to traumatic injuries were reported by Gracie Hines, RN, Trauma Program Specialist for DRMC. Unintentional injuries remain the leading cause of death for Mississippians ages 1 to 44. According to the Mississippi Trauma System of Care Registry 2018, motorized vehicle related injuries were the leading cause of traumatic injury from 2006-2016 in Mississippi. In addition, motor vehicle accidents account for 46% of all external causes of death. Gunshot wounds, stabbings and assaults accounted for 11% of traumatic injury cases in Mississippi. In our community, the leading cause of traumatic injuries is related to motor vehicles accidents with the leading cause of death being injuries from gunshot wounds.

As the only Level III Trauma Center in the area, DRMC is committed to providing medical services to the community ensuring prompt evaluation, treatment and disposition of the trauma patients. Community education regarding motor vehicle safety will continue to be a major concern in an effort to decrease the number of serious injuries, disabilities and deaths due to motor vehicle accidents. In conjunction with the National campaign and the Mississippi State Advisory Committee, DRMC is promoting the Stop the Bleed Program. This ensures all First Responders are equipped with knowledge and skills to “STOP THE BLEED.”

Mary Claire Glasco, Infectious Disease Nurse at DRMC, was consulted regarding public health issues in the community. According to Ms. Glasco, the Delta area continues to face a growing number of patients suffering from community acquired MRSA and resistant strains of C-diff, as well as infections caused by a host of other multi-drug resistant organisms. TB has become more prevalent, and the identification of a strain resistant to INH (isonicotinic acid hydrazide) antibiotic treatment in our community is of major concern. Disease and illness in general has seemingly become extraordinarily complex to monitor as well as treat. The overuse of antibiotics has caused resistant strains of microorganisms that are often extremely difficult to treat- if the option is even available. At DRMC we closely monitor these pathogens as well as promote antibiotic stewardship.

Unmet needs are an integral part of our annual strategic planning. DRMC participates in a variety of task forces, committees, and partnerships with local and governmental agencies, leaders from the community, churches and other associations.

Community Needs Index & Other Data

The Community Needs Index identifies the severity of health disparities for every ZIP code in the United States. There are 6 different zip codes within Washington county, and according to the most recent Community Needs Index, Washington County's average remains just slightly below the highest level at (4.7) for socioeconomic indicators/barriers to healthcare that are known to contribute to health disparities related to education, culture, language, income and housing (Community Need Index, 2018).

As more data becomes available, we utilize a range of other specific needs assessments and reports to identify unmet needs, such as the Community Commons - Health Needs Assessment Toolkit Core Indicators Reports.

Findings

Access to Care

In Mississippi, 83,649 consumers selected or were automatically re-enrolled in quality, affordable health insurance coverage through the Marketplace as of December, 2019. Nationwide, nearly 12 million consumers selected a plan or were automatically enrolled in Marketplace coverage. In our State 93% of Mississippi consumers who were signed up qualified for an average tax credit of \$597 per month through the Marketplace. Consumers had a choice from 1- 2 issuers in the Marketplace depending on what county a person lived in. Washington County has one insurer. (*kff.org*)

Open enrollment typically runs from November 1 – December 15, 2019. Consumers can visit ***HealthCare.gov*** or ***OneMississippi.com*** to assess qualifications of a Special Enrollment Period because of a life change such as: marriage, birth of a child or loss of other coverage. Enrollment in Medicaid and the Children's Health Insurance Program is open year round.

The most recent data for 2017 indicates that 16.2% of those living in Washington County are uninsured which is higher than the State average of 14.5% and considerably higher than the National average of 9%. (*Data Source: US Census Bureau, Small Area Health Insurance Estimates. 2017. Source geography: County*)

Disease Incidence and Prevalence

****Throughout this document it will be important to note that incident rates are per 100,000 individuals.****

Obesity

Since 1980, obesity rates have increased drastically in the United States, doubling for adults and tripling for children, a statistic that doctors have coined, “The Obesity Epidemic.” There is worry among experts that today’s youth will be the first ever to have a shorter life expectancy than their parents. There are numerous health issues linked to obesity, including increased risk for heart disease, stroke, and type2 diabetes all are fuel to our nation’s skyrocketing healthcare costs. Additionally, recent studies on overweight children have revealed correlations to depression, increased likeliness to miss school, and lowered academic performance in school. Unfortunately, 25.4% of children from the ages of 10 to 17 suffer from obesity putting Mississippi in the number one spot. In 2018, Mississippi has the highest adult obesity rate in the nation. Mississippi's adult obesity rate is currently 39.5%, up from 35.6% in 2016 and from 23.7% in 2000. Rates of obesity now exceed 35 percent in nine states (Arkansas, Kentucky, Iowa, North Dakota, Missouri, Louisiana, Alabama, West Virginia and Mississippi), 22 states have rates above 30%, 17 states are above 25%, and every state is above 20%. Mississippi and West Virginia have the highest adult obesity rates at 39.5%, while Colorado has the lowest at 23.0%. Unfortunately in Washington County, 43% of adults aged 20 and older self-report that they have a Body Mass Index (BMI) greater than 30.0 (obese) in the report area. (countyhealthrankings.org/app/Mississippi/2019)

Exercise and healthy eating habits are known to prevent obesity, and in turn many of the associated disease states. Access to recreation and fitness facilities encourages physical activity and other healthy behaviors. Decreased physical activity has been related to several disease conditions such as type 2 diabetes, cancer, stroke, hypertension, cardiovascular disease, and premature mortality, independent of obesity. Inactivity causes 11% of premature mortality in the United States, and caused more than 5.3 million of the 57 million deaths that occurred worldwide in 2008. [1] In addition, physical inactivity at the county level is related to health care expenditures for circulatory system diseases. (countyhealthrankings.org)

In Washington County, 27.33% of the population does not have access to healthy food outlets compared to 30.1% in Mississippi and 18.63% nationally. The percentage for low healthy food access is 43.54% in Washington County compared to 31.56% in the state of Mississippi and 30.89% nationally. (*CARES 2010-2016*) Decreased physical

activity has been related to several disease conditions such as type 2 diabetes, cancer, stroke, hypertension, cardiovascular disease, and premature mortality, independent of obesity. Inactivity causes 11% of premature mortality in the United States, and caused more than 5.3 million of the 57 million deaths that occurred worldwide in 2008. [1] In addition, physical inactivity at the county level is related to health care expenditures for circulatory system diseases. (countyhealthrankings.org/app/Mississippi/2019) In Washington County, the percentage of the population over the age of 20 with no leisure time physical activity is 35.7% compared with a 31.2% in Mississippi and 22.8% nationally. (*CARES 2004-2016*)

Diabetes

Diabetes Mellitus affects an estimated 30.3 million people or 9.4% of the population in the United States and of that number 1.25 million are children and there are 7.2 million individuals undiagnosed. Diabetes is the 7th leading cause of death in the United States. (*diabetes.org 2016*) However, a new study based on recent national surveys estimates that diabetes accounts for many more deaths in the United States than are being reported on death certifications and that diabetes is actually the 3rd leading cause of death. (medscape.com/viewarticle/875135) It is the 6th leading cause of death in Mississippi (*Mississippi State Plan, 2013*). Diabetes can lower life expectancy by up to 15 years, and increases the risk of heart disease twofold. It is also the leading cause of renal failure, lower extremity amputations and adult-onset blindness (*U.S. Department of Health and Human Services, 2010*). If current trends continue, one in three U.S. adults could have diabetes by the year 2050 (*ADA, 2013*). In addition to the number of people who already have diabetes, CDC estimates that 84.1 million U.S. adults aged 18 years or older had prediabetes in 2015. With prediabetes, blood sugar levels are higher than normal but not high enough for a diabetes diagnosis. Prediabetes can increase a person's risk of type 2 diabetes, heart disease, and stroke. Although an estimated 33.9% of U.S. adults had prediabetes in 2015, only 11.6% were aware of it. (cdc.gov/diabetes2017)

In 2016, Mississippi ranked the highest in the U.S. for overall diabetes prevalence, with over 308,000 adult Mississippians having type 2 diabetes (over 13.6% of the adult population). African-Americans are 77% more likely than whites to be diagnosed with diabetes, and one in four African-American women older than 55 has diabetes (*MSDH, 2013*). Sadly in 2014, Mississippi ranked number three in the U.S. with almost 290,000 individuals being diagnosed with diabetes. The percentage of U.S. adults, by state, who reported that they have ever been told by a health care provider that they have diabetes ranks Mississippi highest at 13.4% and Colorado the lowest at 6.4%. (cdc.gov/diabetes2017)

Screening is an essential measure in order to allow for early detection and treatment of diabetes. In Washington County in 2015, only 76.5% of Medicare enrollees with diabetes have had a hemoglobin A1c test to measure blood glucose control within the past year as compared with 85.1% of Mississippians. This may be related to a lack of access to care, a lack of knowledge, insufficient provider outreach, and/or other social barriers. (*dartmouthatlast.org 2015*)

Heart Disease & Stroke

Heart disease is the leading cause of death in Mississippi, accounting for almost a third of all deaths in the state. In 2017, heart disease accounted for 7,944 deaths in our State. Mississippi's Cardiovascular Disease (CVD) mortality rate remains one of the highest in the nation. Approximately every 40 seconds, an American will have a myocardial infarction. The average age of a person's first myocardial infarction is 65.6 years old for men and 72.0 years old for women (*American College of Cardiology*). In 2017, cerebrovascular disease (stroke) accounted for 1723 deaths in Mississippi. Every 40 seconds, on average, an American will have a stroke. About 795,000 Americans have a new or recurrent stroke annually. About 90% of stroke risk is due to modifiable risk factors; 74% is due to behavioral risk factors (*American College of Cardiology*).

With 82 counties in Mississippi, Washington County is 13th in county rankings for CVD mortality in Mississippi. In Washington County, 17.9% of individuals diagnosed with hypertension admit to not taking their blood pressure medicine. In addition, 51.81% of those 18 years of age or older have been told by a physician or other allied healthcare professional that they have high cholesterol. A more recent indicator reports the percentage of the Medicare fee-for-service population with ischemic heart disease in Washington County is only slightly above the State average at 28.63%. Patients within this same sample report high cholesterol to be 4% lower than the State's average at 36.35% (*cdc.gov/brfss*).

Cholesterol, blood pressure, blood sugar and body mass index numbers are key indicators of risk for major illness. The target range for each indicator include: blood pressure at 120/80; Blood sugar 80-99; Body mass index below 25. The normal range for total cholesterol is less than 200. You also need to know your "healthy" HDL cholesterol and "bad" LDL cholesterol numbers. High total cholesterol, high LDL, or low HDL means you need to take immediate action to prevent a possible heart attack or stroke. There are no definite symptoms of high cholesterol. That's why it's important to see your doctor and know your cholesterol numbers (*Mississippi State Department of Health*).

The majority of people who die of coronary heart disease are 65 or older. However, a heart attack can occur at any age. While heart attacks can strike people of both sexes in old age, women are at greater risk of dying. Men have a greater risk of heart attack than women do, and men have heart attacks earlier in life. Children of parents with heart disease are more likely to develop heart disease themselves. African-Americans have more severe high blood pressure than Caucasians, and a higher risk of heart disease. Heart disease risk is also higher among Mexican-Americans, American Indians, native Hawaiians and some Asian-Americans. This is partly due to higher rates of obesity and diabetes. Most people with a significant family history of heart disease have one or more other risk factors. (*American Heart Association*).

There are certain risk factors that can be controlled to help prevent heart disease and cerebrovascular disease. These risk factors include cholesterol, blood pressure, obesity, diabetes, physical inactivity and tobacco abuse. The prevalence of CVD risk may be reduced by risk factor modification, including smoking cessation, physical activity, blood pressure control, eating a healthy diet, and lowering blood cholesterol levels. Currently, three-fourths of Mississippians have at least one CVD risk factor (*Mississippi Task Force on Heart Disease and Stroke Prevention*).

High Blood Pressure

About 75 million American adults have high blood pressure which is one in every three adults. In 2014, high blood pressure was the primary or contributing cause of death for more than 410,000 Americans – more than 1,100 deaths a day. Approximately 54% of the people with high blood pressure have their condition under control. About one in three American adults have prehypertension, blood pressure numbers that are higher than normal, but not yet in the high blood pressure range. Mississippi is one of ten states with over 32% of the population being prevalent of Hypertension adults ages 20 and older. (*CDC Division for Heart Disease and Stroke Prevention 2017*)

Too many youth have high blood pressure and other risk factors for heart disease and stroke. A new CDC study shows that about 4% of youth aged 12–19 years have hypertension, and another 10% have elevated blood pressure (previously called “prehypertension”). Youth with obesity had the highest prevalence of hypertension. High blood pressure in youth is linked to health problems later in life. The good news is that high blood pressure is preventable and treatable. (*2017 American Academy of Pediatrics (AAP) Clinical Practice Guideline External*) The prevalence of high blood pressure in African-Americans is the highest in the world. Also known as hypertension, high blood pressure increases your risk of heart disease and stroke, and it can cause permanent damage to the heart before you even notice any symptoms. That is why it is often referred to as the "silent killer." Not only is high blood pressure more severe in

blacks than whites, but it also develops earlier in life. (*American Heart Association African Americans Heart Disease and Stroke*)

More than 700,000 Mississippi adults have high blood pressure (hypertension), and thousands more may be at risk. In Washington County, over 13,900 adults have high blood pressure which is approximately 37.7% of the population. This is higher than the state and national levels. 65.9% of the Medicare population reports having high blood pressure. (*CARES 2011-2017*)

Mental Health

Mental illnesses are common in the United States. Nearly one in five U.S. adults' lives with a mental illness (46.6 million in 2017). Two broad categories can be used to describe these conditions: Any Mental Illness (AMI) and Serious Mental Illness (SMI). AMI encompasses all recognized mental illnesses. SMI is a smaller and more severe subset of AMI. Mental illnesses include many different conditions that vary in degree of severity, ranging from mild to moderate to severe. In 2017, there were an estimated 46.6 million adults aged 18 or older in the United States with AMI. This number represented 18.9% of all U.S. adults. In 2017, there were an estimated 11.2 million adults aged 18 or older in the United States with SMI. This number represented 4.5% of all U.S. adults. (nimh.nih.gov/health/statistics/mental-health)

Mental Health is a major unmet health need not only in Washington County but our State as a whole. The number of Psychiatrists, Psychologists, Clinical Social Workers and Licensed Professional Counselors in Washington County is 106 per 100,000 individuals. Access to Mental Health Professionals in our county is way below the State average of 146.2 and the National average of 202.8. (*Countyhealthrecords.org*) Only 38.3% of adults with mental illness in Mississippi receive any form of treatment from either the public system or private providers (*according to SAMHSA*). The remaining 61.7% receive no mental health treatment. According to Mental Health America, Mississippi is ranked 44 out of the 50 states and Washington D.C. for providing access to mental health services. Mental Health left untreated contributes to several behavioral risk factors. (rtor.org/directory/mental-health-mississippi)

Nationally, youth mental health is worsening. From 2012 to 2017, the prevalence of past-year Major Depressive Episode (MDE) increased from 8.66 percent to 13.01 percent of youth ages 12-17. Now over two million youth have MDE with severe impairment. Only 28.2 percent of youth with severe MDE were receiving some consistent treatment. (mhanational.org/issues/ranking-states#youthdata)

Mississippi's percentage of major depressive episode (MDE) among adolescents aged 12–17 was similar to the national percentage in 2013–2014. In Mississippi, about

26,000 adolescents aged 12–17 (10.6% of all adolescents) per year in 2013– 2014 had at least one MDE within the year prior to being surveyed. (*samhsa.gov*)

Response to Findings

Identified Needs

Strategic planning consisted of evaluating potential priority areas using the following criteria:

- Are a significant number of Washington County residents affected by this issue?
- What is the level of public concern or awareness regarding the issue?
- Does this issue contribute (either directly or indirectly) to early mortality?
- Are there disparities in care associated with this issue?
- Is there a way to quantify accomplishment related to activities regarding the issue?
- Do we have the clinical strength and infrastructure available to address the issue?

The Steering Committee narrowed the priority focus areas to the following:

- Obesity
- Diabetes
- Heart Disease & Stroke
- High Blood Pressure
- Mental Health

Internal Steering Committee Members

Scott Christensen, FACHE Chief Executive Officer

Amy Walker, RN, MSN Chief Nursing Officer

Iris Stacker, Vice-President Compliance & Support Services

Kevin P. Willis, Coordinator, Service Excellence

Mary Claire Glasco, RN, Infection Control

Kim Dowdy, Manager, Community Development

Community Benefit Plan

- The Delta Regional Medical Center Community Benefit Plan is outlined in the attached summary. This document is based on the Community Health Needs Assessment completed in 2019, and is intended to guide the program for fiscal years 2019 – 2021. This summary is a living document that will undergo changes as we evaluate current processes and implement new ones that focus on one or more of the six priority focus areas.