Almost one-third of Mississippian reside in a Primary Care Health Professional Shortage Area (HPSA), meaning that these residents experience difficulty in obtaining health care. Access to primary care is essential to the health and well-being of the communities that rely on these physicians. The need for regular access to primary care is particularly vital for Mississippian due to high rates of chronic diseases such as diabetes and heart disease. In this health map, we examine the distribution of primary medical care providers in Mississippi by assessing the availability of primary care physicians by county.

The idea for this analysis comes from a report prepared in 2008 by the Mississippi Center for Health Workforce, which examined the distribution of primary care physicians and associated workloads for 2007. In order to understand the changes in the availability of primary care physicians, namely where the changes occurred and how have these changes occurred, we examined the data collected in 2001 and 2008. Several questions are examined in this report related to the availability of primary care physicians, namely where have the changes occurred or have there been changes at all? The results of this analysis are presented in the next section.

Data was obtained from the Mississippi Physician Workforce database, developed from information on allopathic and osteopathic physicians provided by the Mississippi State Board of Medical Licensure (MSBML). The data was multiplied by 1,000 to round to the nearest whole number. The database is used to identify the distribution of primary care physicians, defined as practicing in Mississippi, as defined as practicing at least part-time and primarily practicing in Mississippi, were included in the analysis. In 2007, 4,946 physicians applied for license renewal for practice in Mississippi from July 2001 to June 2002. When adjusting for physicians who practice primarily in Mississippi and practice at least part-time, the sample was reduced to 4,284 physicians. The final step was to identify primary care physicians, defined in this study as general practice, family practice, internal medicine, pediatrics, or obstetrics and gynecology as a primary specialty. This subsample of 1,910 physicians was aggregated at the county level based on their primary practice location in Mississippi. Of these physicians, 2,064 were identified as primary care physicians based on their reported primary specialty (general practice, family practice, internal medicine, pediatrics, or obstetrics and gynecology).

Overall, Mississippi experienced almost a 3 percent increase in the number of practicing primary care physicians from 2001 to 2008. This increased the physician supply, defined as number of physicians for every 100,000 persons, from 66.8 to 70.2. Despite this increase, Mississippi is still far below the national average of 130 primary care physicians for every 100,000 people. However, at state-level, these statistics are in line with standards developed by the Council on Graduate Medical Education (COGME) in that there should be about 70 primary care physicians per 100,000 people, or about 1,429 individuals per primary care physician. A county-level analysis yields a more disparate distribution.

It is important to examine the number of physicians by county and look at the percent change in the number of primary care physicians, calculated as the difference between the numbers of primary care physicians in 2008 and in 2001, by county. The change in the number of primary care physicians from 2001 to 2008 ranges from a loss of 11 physicians in Adama County to a gain of 33 physicians in DeSoto County. The values shown for individual counties indicate the increase or decrease of one physician (this is not shown for counties with no change in number of primary care physicians). Of Mississippi’s 82 counties, 30 counties experienced a decrease in the number of primary care physicians, as shown in dark gray, from 2001 to 2008. Mississippi’s 82 counties are located in Central and North Mississippi. Furthermore, given that the patients are more likely to be in rural areas, it is not surprising that most of these counties experienced a decrease even the loss of one physician may further contribute to issues with access to care as it may alter the physician supply ratio, increasing patient workloads within the remaining primary care physicians. Alternatively, it may also force county residents to cross borders in order to have access to care, therefore creating or contributing to barriers associated with accessibility of health care. This scenario is most likely in counties where no physician specializes in pediatrics or obstetrics and gynecology.

Almost one-half of Mississippi counties experienced an increase in the number of primary care physicians from 2001 to 2008, as indicated in maroon. Mississippi’s 42 counties are located in South Mississippi. About 75 percent of counties that experienced an increase added 5 or fewer physicians. For rural counties, an increase in the number of primary care physicians helps minimize the patient loads. For example, the highest increases occurred in counties with populations of about 50,000 or more. DeSoto County incurred the largest single increase, as previously noted, is included in the Memphis, TN metropolitan statistical area (MSA) as defined by the Census Bureau. Additionally, DeSoto County is the third most populous county in Mississippi, and it experienced the greatest population growth (25 percent) from 2001 to 2008. Two other metropolitan counties, Jackson County (-30) and Madison County (+14) — experienced a large increase in the number of primary care physicians. These two counties are part of the Jackson, MS MSA, and both experienced growth population growth of almost 25 percent over the 7-year period.

While the causes of these changes in distribution cannot be determined from this analysis, it is important to note that Mississippi experienced two major events between 2001 and 2008 that could have influenced these changes. First of these, tort reform, occurred with the passing of legislation in 2004, while the second, Hurricane Katrina, occurred in 2005. While tort reform encouraged insurance companies to return to Mississippi, thus allowing for the availability of liability insurance for physicians, Hurricane Katrina restructured county populations, as well as economic and social structures.

While measures of access to care include more than the availability of primary care physicians, the analysis presented here provides a foundation for future analyses. The availability of primary care physicians continues to be a problem in Mississippi, as physician shortages hinder residents from obtaining routine care easily. A lack of primary care physicians may also exacerbate health disparities as individuals may postpone care until they encounter severe health problems. A shortage of primary care physicians is not only detrimental to individual health, but it is also harmful to the economic and social structure of the communities involved.