Where’s the Primary Care?

Many Mississippi counties have inadequate access to primary care, defined by the COGME physician supply guidelines as more than two times the recommended patient-physician ratio—leaving 63 counties with too few physicians relative to the number of people. Of those 63 counties, 39 have patient loads double the recommended levels, 20 are between two and four times the recommended levels, and two counties are more than four times the recommended patient loads. In the recommendation, Issaquena County still has no physician, generalist, or specialist, within its borders to provide care for its small, yet vulnerable population of 1,675. Generally, the populations of the counties with the lowest patient loads are those that have the highest populations. That is, physicians tend to set up practice in population centers, leaving rural counties with fewer physicians even controlling for the smaller population that lives in these rural areas. Of counties with acceptable levels of access to care, the average population is 56,741, while those in the next tier have populations of 35,831. Tiers 3 and 4 have average populations of 19,679 and 14,188, respectively.

Previous analyses examined patient-physician ratios at the county level. Given the small roll of a Mississippi county, as well as patient mobility for care across county and state lines, this analysis examines each county and its adjacent counties as analytical micro-regions. Using the Physician Workforce database and 2007 county population counts, each county’s population and total number of generalists were calculated. Next, we identified contiguous counties for each of the 82 counties. For example, Newton County’s adjacent counties were Kemper, Lauderdale, Clarke, Jasper, Smith, Scott, and Leake (see Map 2). These adjacent counties’ populations and numbers of generalists were then

admitted to the original county’s population and number of generalists to come up with a total population and number of generalists for each county’s micro-region, defined as the county plus its contiguous counties, resulting in a calculation that is likely to resemble access to care for the specific county’s citizens given propensity to travel for care. The resulting population and number of generalists were then used to calculate a patient-to-physician ratio; this ratio was then divided by COGME standards to produce similar numbers as the previous calculations. Again, for counties with a ratio less than 1.0, the county’s region was deemed to have an acceptable patient-to-physician ratio relative to the COGME standards and adequate access to care. The results are displayed on Map 2.

Using this methodology, the wide variation of patient-to-physician access to care is no longer obvious. When using the contiguous county methodology, of Mississippi’s 82 county micro-regions, twenty-eight are within recommended patient loads, meaning 54 have inadequate access to physicians. Of those 54 county micro-regions, 46 are between one and 1.5 times the recommended patient load and eight are between one and one half two times the recommended patient load. Not only does the number of counties with micro-regions that do not reach the recommended number of generalists decrease, but the magnitude of their shortages are also limited to only a handful of patient loads that no more than double the recommended levels. Furthermore, the populations of the remaining eight county micro-regions, at least three border counties in each, included in Census Bureau metropolitan statistical areas, with DeSoto County and Memphis, TN; Tishomingo County and Florence, AL, and Greene County and Mobile, AL.

The final level of analysis is at the level of Area Health Education Center regions. Mississippi Area Health Education Centers, or AHECs, are non-profit organizations that seek to improve the access to quality health care through education, interventions, and partnerships with schools, providers, and communities. These centers also work with health care organizations to recruit physicians to their practices. So, it is beneficial to examine variations in access to care in these regions to understand how it varies in larger regional populations. Each county was placed into its respective AHEC region. The county figures were then aggregated by their AHEC region to give a population and number of generalists for each of the seven AHEC regions. The resulting population and numbers of generalists were then divided by the resulting number of generalists to produce an AHEC patient-to-physician ratio. This ratio was then divided by COGME recommendations to compare access to care for each of the AHEC regions, relative to populations.

Map 3 shows the results of the AHEC level analyses. Most of the AHEC regions fall between one and 1.5 times the recommended patient loads. The North East, Northwest Delta, East Central, and Southwest AHECs all fall into this category, indicating that each region would benefit by adding as many as an additional 50% of its current number of generalists. Only the Central and Southern AHECs fall within recommended COGME guidelines. While the Southern AHEC region is operating at 99% of its recommended patient loads, the Central AHEC region has patient loads that are 60% of the recommended levels, indicating a concentration of generalists that exceeds the demands of the population by a factor of 1.5. Keep in mind that the Central AHEC includes the greater Jackson region—the population center of the state.

While there are certainly other considerations regarding access to care in Mississippi, one of the most basic concerns is access to generalists. Primary care is important not only to diagnose and treat common illnesses, but also to provide referrals to specialists. There is a statewide shortage of physicians in Mississippi, which is exacerbated in rural areas. People in these areas cannot access routine care easily, nor can they get referrals to specialists to receive targeted care. Preventive practices also suffer from the lack of generalists because people often wait until they have severe and acute health problems to seek medical attention. When routine care is postponed, disparities associated with access to care are intensified. Lack of access to primary care physicians not only harms the health of an individual, but also the economy and social structure of the communities involved.