Perspectives on Mississippi’s 21st Century Physician Workforce Supply: Findings from the 2007 MSMD Survey

Debra Street, PhD, Buffalo, SUNY
Jeralynn S. Cossman, PhD, Mississippi State University

ABSTRACT
The capacity to recruit and retain physicians to practice in Mississippi has been a perennial concern of the profession. In the first Mississippi Physician Workforce Study (2003) conducted at the height of the state ‘malpractice crisis,’ Professor Cossman identified several looming threats to effective Mississippi physician recruitment and retention, including a high percentage of physicians who reported they were considering relocation or retirement in the near future. In this article, Street and Cossman report survey findings from actively practicing physicians (N=848) who responded to the second Mississippi Physician Workforce Study (2007 MSMD). This analysis updates perspectives on the physician workforce supply in the aftermath of malpractice legislative reform and Hurricane Katrina.

BACKGROUND
The ability to first recruit and then retain high quality health care professionals is essential for a thriving physician workforce. Historically, Mississippi has faced many impediments to the state’s capacity to recruit and retain enough high quality physicians to meet all the health care needs of its diverse population. National guidelines designate most of Mississippi’s counties as ‘underserved’ (Health Professional Shortage Areas data from the U.S. Department of Health and Human Services, see http://bnpb.hrsa.gov/shortage/), with insufficient physicians in many areas to meet local health care demand (Butts and Cossman 2008; Cossman, Ritchie and James 2004).

Processes of physician recruitment and retention are complicated. Both recruitment and retention are shaped by the complex interplay among many factors affecting the physician workforce and the choices physicians make about where they want to work (see Dismuke 1989; Robinson and Guidry 2001; Cossman 2003; Larson 2008). Some factors relevant to recruitment and retention are:

- Statewide public policies relating to matters such as Medicaid reimbursement rates and tort/liability laws
- Physician practice circumstances, including access to adequate resources, the characteristics and proximity of the broader health care system (such as clinics, hospitals, peers, other health professionals, specialists) and practice-related insurance liability rates
- Localized spatial circumstances and demographic profiles shaping the age, income, and general health of the patient base, and rural/urban practice setting
- Community characteristics, like cost of living and community cultural and educational amenities
- Characteristics of physicians themselves (age, gender, family status, race/ethnicity, state/country of birth) and perceptions of satisfaction with their profession as practiced in Mississippi
All states with large rural populations face particular difficulties in the physician recruitment and retention process (Robinson and Guidry 2001; Larson 2008). While recruitment and retention challenges extend far beyond urban/rural divides, they are especially complicated by the size and dispersion of Mississippi's rural population. A sufficient supply of generalist physicians is an essential component of adequate access to primary health care, regardless of other circumstances, and generalists are especially critical health care providers in rural communities. Particularly worrisome in this regard is that rural physician shortages have been deepening nationwide and are not expected to improve in the near future (Auchincloss and Hadden 2002; Ricketts 2000). Prospects for recruiting and retaining rural physicians in Mississippi are not likely any better than the national experience.

In contrast to their generalist counterparts, specialists such as neurosurgeons or thoracic surgeons are less often called upon to deliver routine care. Yet they and other specialists are essential to meet critical and complex health care needs. Specialists usually need access to sophisticated treatment facilities, almost invariably associated with large urban hospitals. They also need a patient base large enough to support the expensive practice infrastructure of specialty medicine.

Differences arising from the patient bases, practice circumstances, and infrastructure needs influence the typical specialization characteristics of rural and urban physicians.

Research also suggests that new doctors entering the profession are especially concerned with lifestyle opportunities (like community cultural resources, educational opportunities for children, spousal employment opportunities) in the communities where they choose to practice (see Dismuke 1989; McCullough and Dodge 1999). Rural settings may indeed offer singular benefits to physicians preferring those locales. Nonetheless, the particular circumstances of place likely determine whether rural placements are regarded as adequate in the first place for newcomer physicians, or whether community amenities are sufficient to meet continuing or evolving lifestyle preferences over the longer term (Robinson and Guidry 2001; Stensland, Brasure, and Moscovice 2002.).

Figure 1 summarizes Mississippi physicians' perceptions of the overall recruitment/retention climate in response to items on the 2007 MSMD survey. The question was worded this way on the survey:

The following items concern your perceptions of the practice climate in Mississippi. Please rate, from poor to excellent, each of the items relating to the practice climate in Mississippi:

- Recruiting new physicians...
- retaining experienced physicians.

Note in Figure 1 that nearly four out of five actively practicing Mississippi physicians in the sample have a negative perception of current recruitment prospects, regarding them as either fair or poor. Only a handful of doctors indicated that the recruitment climate was excellent. More than half of the 2007 MSMD respondents reported that the retention potential for doctors who had already begun practice in Mississippi was only fair or poor.

Figure 1. General Recruitment and Retention Climate for Mississippi Physicians

In her earlier study, Cossman (2003) noted the underrepresentation of women and minority physicians practicing in Mississippi (whether compared to their distribution in the state population or to their distribution in the national physician workforce), a trend that has persisted. Figure 2 uses the most recent 2007 MSMD data to explore whether physicians regard recruitment and retention as problematic for these two

Figure 2. Recruitment and Retention Climate for Women and Minority Physicians
underrepresented demographic groups. Shortages of specific types of doctors can matter because some research suggests that, from the perspective of the doctor-patient relationship, concordance between patients and physicians may improve care for some patients, especially for patients who feel most comfortable receiving care from physicians with whom they share personal characteristics (LaVeist and Nuru-Jeter 2002). For example, patient satisfaction with care may be enhanced when minority patients can choose to be served by minority physicians, or when women patients can opt for women physicians if they prefer.

It is interesting that 2007 MSMD respondents were somewhat more upbeat about the recruitment and retention climate in Mississippi for women and minority physicians (Figure 2) than for the profession overall (Figure 1). Nearly half reported that the climate was at least average or good for recruiting women physicians to start practices in Mississippi; more than half answered that retention potential was average or better for women doctors. Roughly half reported that the recruitment climate was average or good and that the retention potential for minority doctors as at least average or better for minority physicians in Mississippi.

Perceptions that recruitment is more challenging for the profession overall than for women or minority subgroups within the profession may reflect several broader influences. First, social change in the United States has contributed to lowering barriers for women's and minorities' participation in the profession over the past few decades. Second, in recent years, Mississippi has pursued deliberate initiatives to recruit more women and minority medical students and (hopefully) into eventual practice in the state. While recruitment of a sufficient physician supply in general has been an overarching concern, the recent explicit focus on women and minority medical school recruitment seems to have influenced physicians' perceptions of a somewhat better recruitment climate for at least those two particular groups of physicians.

Considering perceptions of retention prospects, there was less difference when comparing physicians overall to the retention prospects for either women or minority physicians. This is likely because more efforts and attention have been paid to recruiting physicians to the profession in the first place, but with only scant focus and few initiatives to encourage physicians (regardless of their characteristics) to stay in practice in the state.

PHYSICIAN SUPPLY: ADEQUACY AND CHANGE

Beyond recruiting and retaining physicians, other components of physician supply are important. Adequacy of supply and change in the availability of routine or specialized physician care are areas that may have been affected by the legacy of Mississippi's earlier malpractice "crisis" (late 1990s and early 2000s) or the aftermath of Hurricane Katrina (see Cossman and Street 2008). We asked 2007 MSMD respondents to report their assessment of the adequacy of the state's physician supply and to estimate whether physician supply had stabilized or changed in recent years. Individual doctors are well-positioned to have an informed sense of how physician supply issues are playing out in Mississippi. Physicians in active practice directly observe both adequacy of supply (in their professional interactions with other physicians and the ease with which their patients access different types of physicians) and change in supply (whether their ability to solicit expert consultations from colleagues or patients' ability to access particular types of physicians is fluctuating).

Nearly 55% of 2007 MSMD respondents reported that, overall, there are too few physicians practicing in Mississippi (shown in Figure 3). Few respondents indicated any concern about the potential for over-supply of physicians. Rather, across all specialties, at least two out of five physicians in our study reported that there were too few physicians. The highest levels of concern were for an insufficient supply of neurosurgeons (65% of respondents said there are too few) and not enough family or general practitioners (55% or more said there are too few). Respondent concerns regarding the adequacy of physician supply apply to all specialties but especially to either end of the specialty spectrum—worries that there are inadequate generalist physicians to meet Mississippian's needs and concerns that there are too few highly specialized doctors as well.

Figure 3. Adequacy of Physician Supply

[Graph showing adequacy of physician supply]
If physicians in the 2007 MSMD perceive a bright spot on the physician workforce horizon, it may be their sense that some of the worst is past for the Mississippi medical profession. In the aftermath of medical liability reform and having weathered the most immediate effects of Hurricane Katrina, most respondents perceived the supply of physicians overall and across specialty areas, as either stable or improving (Figure 4). For example, three out of four physicians in 2007 MSMD reported that the overall supply of physicians as stable or increasing. Even greater proportions perceived stability or increases in the supply of family and generalist physicians throughout the state. More expressed concern about changes in the supply of neurosurgeons and obstetricians, with 35% and 25%, respectively, expressing concern that the supply of physicians in those critical specialties was decreasing.

**Figure 4. Change in Physician Supply**

![Graph showing change in physician supply](image)

**DISCUSSION**

In this article we have updated information on Mississippi physicians’ perceptions of the prospects for the physician workforce. Our analysis has focused on the informed opinions of 2007 MSMD respondents regarding physician recruitment and retention and on the adequacy and change in the supply of doctors in Mississippi. Certainly, the physician supply in Mississippi is shaped by many more complex factors than merely those discussed here. Still, findings from analyses of 2007 MSMD data provided by actively practicing physicians underscore critical issues for health policymakers: the need to think broadly about issues of recruitment and retention as they influence adequacy and change in Mississippi’s physician workforce. Some of the challenges that Mississippi faces—its sizeable rural population alongside the poverty and poor health of many of its citizens—are unlikely to change much in the near term. These conditions make adequate access to health care (and thus state physician supply) especially critical for Mississippian’s well-being. Physicians were not particularly optimistic about the state’s overall physician recruitment and retention prospects or supply trends. These concerns, combined with recognition that half of the state’s active physicians are 50 or older, should create a sense of urgency for innovations that can generate and sustain a physician workforce that can meet Mississippi’s 21st century health care demands. Without effective new initiatives to recruit and stabilize the state’s physician workforce, prospects of an adequate physician supply in Mississippi’s immediate future appear tenuous at best.

Yet there may be reason for very cautious optimism. Considering the improvements to their practice climate that most physicians identify with recent liability reform and the efficient response within the medical community to the effects of Hurricane Katrina (Cossman and Street 2008), there are clearly patterns of resilience in Mississippi’s physician workforce. Having surmounted those two sizable challenges, prospects for the physician workforce in Mississippi may be improving. Mississippi’s supply of physicians in the near future will likely also be augmented by the recent increases in the size of the University of Mississippi Medical Center’s incoming class. This has especially critical implications for the future state of the physician workforce, since over half of Mississippi’s physicians have been trained at UMC. While the effects of larger medical school classes and the longer-term effects of tort reform may take some time to fully work their way through physician workforce trends, on at least some fronts, physician workforce prospects seem more positive than they were just five years ago.

**REFERENCES**


AUTHOR INFORMATION

**Debra Street, PhD** is an associate professor in the Department of Sociology and a faculty fellow of the UB Regional Institute at the University at Buffalo, SUNY. She was elected to the National Academy of Social Insurance in 2007. She can be contacted via email at dstreet@buffalo.edu.

**Jeralynn Cosman, PhD** is an associate professor of sociology at Mississippi State University, where she directs the North East Mississippi AHEC. Cosman is a research scientist at the Mississippi Health Policy Research Center of the Social Science Research Center and is president-elect of the Southern Demographic Association. She can be contacted via email at lynne.cosman@msstate.edu.

Street and Cosman appreciate funding to collect data for the 2007 Mississippi Physician Workforce Study (2007 MSMD) provided by the Mississippi Academy of Family Physicians, the Mississippi State Medical Association's Mississippi Physician Care Network, the American Academy of Family Physicians, and the Social Science Research Center at Mississippi State University. The analysis presented here is solely the responsibility of the authors and does not necessarily reflect the perspectives or opinions of the funders of this research.