

their basic human needs, including access to health care. People who volunteer their time and efforts are important, but it can never be expected that this takes the place of a society committed to social justice; similarly private donations cannot take the place of government commitments.

A few examples from our area:

- A few years ago, a new conversion foundation committed to supporting the health needs of the underserved was created. In the same week that it announced that it would give away \$20 million a year for this purpose in Kansas City, the governor of Missouri announced cuts of \$600 million to Medicaid.

- A local branch of an FQHC serving a desperately poor community moved to another area where the higher Medicaid population would allow it to financially survive. A local not-for-profit safety net clinic opened a satellite in that now-unserved community; it survives not only on foundation support but because all its staff, including doctors, dentists, and nurses, work for \$12 an hour.

Our safety net clinics, including the student-run free clinic, provide important services to uninsured people but cannot begin to touch the real need (in addition, as Drs Mainous and Baker point out, to needing access to many services beyond those of primary care physicians).

Martin Luther King, Jr, said “Philanthropy is commendable, but it must not cause the philanthropist to overlook the circumstances of economic injustice which make philanthropy necessary.” More pithily, Jonathan Kozol wrote “Charity isn’t a good substitute for justice.” We can never forget this and never stop fighting for justice. We must teach our students to both provide care for the needy and to work for system change.

It is absolutely appropriate to recruit medical students based on their social conscience and commit-

ment. This is a more valid indicator of being someone who is likely to make a difference in the health of communities than is a 4.0 average in the sciences, something never shown to be correlated with the quality of a physician. We also must provide opportunities for them to do good, foster those acts, and provide role models. And, if we are ever fortunate enough to have universal financial access to health care, they can work on the other social issues that will continue to exist, such as those the authors identify in the United Kingdom. Our profession can never have too many good, caring, empathic people.

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#### Authors’ Reply:

We are in agreement with many of the points put forward by Mr Manriquez and Dr Freeman. We agree with Mr Manriquez and Dr Freeman that selection of medical students who show altruistic behavior and have a social conscience is desirable. Such students have personal qualities we would like all doctors to possess. We also are in agreement that doctors who provide uncompensated care for individuals who need care should be applauded. But we also agree with the example given by Mr Manriquez and the quotations given by Dr Freeman that show that it is not sufficient to rely on these qualities to ensure access to health care for all those who need it. Nor is it sufficient to reply alone on action by individual doctors to address those factors that cause poor health in uninsured or marginalized groups.

Doctors should not, uniquely, be expected to be charitable. Charity should be expected of all of us, both individually and collectively. Of course medical education should promote and sustain altruistic behavior among future doctors, but it should also encourage students to debate and understand the potential for improving health by collective

action by the societies in which we live.

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### Factors That Influence Career Selection Among Medical Students

#### To the Editor:

We read Morra and colleagues’ recent study on medical students’ perceptions about financial factors and remuneration in family medicine with great interest.<sup>1</sup> Based on a survey of Canadian medical students, this study revealed that a vast majority of the student participants believed that family physicians are paid too little for their services. A majority of the students underestimated the actual income of family physicians compared with physicians in other specialties, such as general surgery and dermatology.

Thirty-seven percent of US seniors graduating from medical schools in 2009 matched in primary care specialties (eg, family medicine, internal medicine, and pediatrics).<sup>2</sup> This percentage has steadily declined since 2005 (annual average decline of 0.6% from 2005 to 2009); the decline for family medicine is more pronounced with each year (0.1% decline for 2005–2006 versus 0.7% for 2008–2009).<sup>2</sup> If Morra and colleagues’ findings are extrapolated for US medical students, this continual decline may be attributed in part to student misperceptions about future earnings and opportunity costs of family medicine and other primary care specialties. If students were to consider opportunity costs such as overhead, family life, career satisfaction, work schedule, and flexibility in secondary career options (eg, research, public health, public service), the discrepancy between the average gross income of family

physicians versus that of specialists may not be as significant a deterrent to selecting primary care careers as students might think.<sup>1,3</sup>

Another aspect of remuneration that medical students often overlook is the practice environment. Average gross incomes by subspecialties as reported in some national surveys<sup>4</sup> may be misleading since there is great variability in these estimates, which largely depend on practice location, type of practice, and the number of physicians in a given practice. Generally, these factors have substantial effects on malpractice insurance premiums, overhead costs, receipt of referrals, size of patient pool, and actual number of patients seen (productivity).<sup>4</sup> In our experience, medical students frequently do not consider these factors when choosing their specialties.

In spite of some recent decline in popularity and potential student misperceptions, the future outlook for family medicine and other primary care specialties remains bright. Anticipated changes from the recent national health care reform effort will likely transform the landscape of how several health services are provided and reimbursed. These changes may favor primary care by emphasizing prevention and chronic disease management over specialty procedures.

Even in this new environment, family medicine should remain proactive in its recruitment and training efforts. The profession should continue its ongoing efforts to improve outreach to medical students, especially early in their education; to support career development of young, talented junior faculty at academic institutions; and to encourage or provide incentives for successful senior faculty to mentor junior house staff.<sup>1,3</sup> These elements of professional development are key drivers of career growth and remain attributes that are critical for making family medicine a unique, viable career among the medical specialties.<sup>3</sup>

Positive progress has been made by several mission-driven institutions over the past several years. For example, at the Charles Drew University/UCLA Medical Education Program, 56% of the graduating class of 2009 matched in a primary care specialty residency program. Although it is difficult to determine which factors ultimately contributed to increased Match rates in primary care, there is hope that with continual efforts that focus on recruiting and training doctors for underserved communities, the pool of practicing primary care physicians will grow to match the needs of the US population.

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## Comment

### Obstacles to Rolling Out an EMR in a Residency

#### To the Editor:

Rolling out an electronic medical record (EMR) is a complicated event that requires extensive planning and the willingness to change plans quickly when things do not

work as anticipated. EMRs have been rolled out in many clinics, but they are typically designed for traditional medical practices that do not have a residency. Our vendor had limited experience working with residency programs so we had to create workflows from scratch to handle some actions that are required in a residency.

The UAB-Huntsville campus rolled out an EMR in August 2006. Since the EMR was integrated into the practice, the volume of patients seen has increased, and billing levels have been raised. In addition to these benefits, the EMR also allows us to continue our mission of educating medical students and family medicine residents, but it did require a large amount of work on the front end. We had to develop specialized workflows to handle resident prescribing, note and encounter signing, and lab orders.

One of the most challenging obstacles we encountered stemmed from creating an e-prescribing system that satisfied regulations from various entities including the State Pharmacy Board, Medicare, and Medicaid. Our system was flexible enough to limit prescribing rights to residents based on drug class. We also had the ability to suppress their signatures on controlled drugs. This was accomplished by requiring prescription authorization by the attending physician and by disabling digital signatures. Another thing to keep in mind is that these regulations change frequently and need to be monitored by the EMR team.

Scheduled appointments are automatically linked to a charge statement and to an encounter note. Both must be signed separately. An attending signature is required on all charge encounters and notes. So, for resident patient appointments an attending must sign off on the note and charge encounter. We handled this workflow by creating signature authorization levels and using built-in tasking functionality.