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FROM THE EDITOR

The Clinical, Professional, and Social Challenges of Practicing Rural Medicine

In its 12-year history, *Virtual Mentor* has never published an issue specifically addressing rural health. As I worked on this issue, several colleagues have asked what makes the ethics of rural medicine any different from the ethical concerns encountered in urban or suburban environments. Having grown up in a rural state, these differences, though sometimes subtle, are obvious to me. Rural physicians face challenges related to their overlapping roles in the community, the emotional and academic difficulties associated with being the only physician in a sparsely populated area, and complicated interpersonal dynamics in communities where privacy is hard to come by. In a small town, one's physician is often a friend, coworker, or even family member; in such an environment, the range of privacy concerns spans reproductive rights, the stigma still associated with psychiatric care, and the medical treatment of friends and family. When specialists are geographically distant, physicians are often placed in the difficult position of performing procedures that may be outside of their comfort zone in order to provide optimal patient care. Frequently, rural physicians must cope with being the sole medical resource for a community, creating the potential for isolation and burnout. The first half of this issue of *Virtual Mentor* examines some patient-physician relationship dilemmas that are more often encountered in rural medicine than in larger, more populated regions.

There is an enormous need for rural practitioners: in February 2011, 65 percent of primary care health professional shortage areas were rural, and there are currently 55 primary care physicians per 100,000 residents in rural areas, when 95 are needed [1]. Reproductive health care is also sparse in rural environments: as of 2005, 87 percent of counties in the United States, the majority of them rural, did not have access to abortion services [2]. People residing in rural areas are also more likely to suffer from chronic health conditions and less likely to receive preventive care [3]. Decreasing interest in family practice disproportionately affects rural communities, which means the inequities between rural and urban health will continue to grow unless we take steps to ameliorate the situation. It follows that there is an ethical obligation to provide medical care to the underserved.

Awareness of these issues is growing. The 2010 Patient Protection and Affordable Care Act and other federal legislation fund initiatives to recruit physicians to rural areas and decrease geographical inequities. Medical schools across the nation are investing resources in programs that train and encourage medical students to practice in rural areas upon graduation. The second half of this issue of *Virtual Mentor* discusses a number of policy initiatives currently being undertaken on national and

state levels, as well as new strategies in medical education, to increase physician workforce.

Throughout this issue, we have tried to offer geographically varied perspectives on the ethical concerns we feel are most pertinent to physicians practicing in rural environments. These are important concerns that need to be borne in mind not only by physicians and patients, but also by policymakers and legislators. While most rural practitioners are already aware of these issues from their own experiences, this is an excellent opportunity to gain fresh perspectives on old dilemmas and incorporate ethical decision making into clinical practice.

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CLINICAL CASE

The Overlapping Roles of the Rural Doctor

Commentary by Mark A. Graber, MD

Dr. Andersen knocked on the exam door. “How are you doing, John?” he said, entering the room.

“Can’t complain,” the patient answered. “Just here for my prescriptions, same as always.”

John was an 82-year-old man who was being treated for hypertension and high cholesterol. His health had been stable for years, and he came in once every couple of months for refills. John was practically family to Dr. Andersen: his son, Matt, was one of Dr. Andersen’s closest friends. The two had attended high school and college together; Matt had even been the best man at Dr. Andersen’s wedding. In a small town like theirs, it was inevitable that professional boundaries between physician and patient were sometimes blurred.

Recently, Dr. Andersen had become increasingly concerned about John’s health. A few days prior, Dr. Andersen had been at a dinner party with Matt, his wife, and a number of other friends.

“I just don’t know if Dad’s up to living by himself anymore,” Matt had said to one of the other guests. “He gets confused. Loses his keys, forgets how to drive home from the grocery store.”

Matt’s wife chimed in. “The other day Mrs. Lee found him walking around the parking lot at the store because he couldn’t remember which car was his. He shouldn’t be by himself in that big house. I just don’t think it’s safe anymore. What if he forgets to turn off the stove one of these days?”

Dr. Andersen was unsure how to proceed with the appointment. Right now, John seemed well-oriented and aware, but based on what he heard at dinner the other evening, he didn’t want to rule out the possibility that John might be developing Alzheimer disease.

“John, I’ve known you and your family a long time,” Dr. Andersen said. “Matt’s one of my closest friends. Heck, my kids play with your grandkids. I’ve got to say, it sounds like your family’s been worried about you lately.”

“Well, I don’t know that they’ve got anything to be worried about,” John said. “I’m just getting older, nothing unusual about that.”

“Matt tells me you’ve been having some trouble getting around,” Dr. Andersen told him. “I think he’s wondering if it’s still a good idea for you to be living alone.”

John stood up indignantly. “You listen to me,” he said furiously. “I’m perfectly fine living alone; I’ve been doing it for years. I got here to my appointment just fine, didn’t I? I don’t know what right you have to tell me what I should and shouldn’t be doing. What’s more, I don’t know who you think you are to be talking about my health with my kids!”

Commentary

I am going to approach this case in two parts. The first part of the discussion will deal with the blurring of roles in rural practice and the second, with the particular case of John.

This is a case that hits pretty close to home. Before becoming an academic, I practiced family medicine in a rural community. There are a lot of rewards and positive aspects to rural practice, among them getting to know your patients. But this can also be a problem. What do you do when your patients are also your friends and the roles conflict? In a small town this is inevitable. You get medical questions and confidential murmurings regardless of where you happen to be: the grocery store, a holiday party, or the pizza shop.

Given that it is impossible to maintain a pristine separation between “practice” and “not practice,” the question becomes “what degree of familiarity and discussion is appropriate outside of the office?” And “what information gathered in a social situation can legitimately be applied in the clinical context?”

Being in rural practice places you in circumstances that may be best described by the anthropological term *gemeinschaft*. In a *gemeinschaften* relationship, people are related on more than one level (patient, friend, relative) and work towards the communal good—the self is often subordinated to the needs of the community. “*Gemeinschaft*” succinctly describes rural medicine; you are not just the patient’s doctor—you are the doctor for the football team, a friend, and perhaps a relative; you speak on health at local schools, are (usually) expected to attend fundraisers, and so on. In contrast, urban practice can be seen as a relationship of the “*gesellschaft*” type. That is, you have a relationship with patients on a single level: they are the patients and you are the doctor and you rarely if ever meet outside of the office.

For a physician, *gemeinschaften* relationships can be a source of conflict, as in this case. The physician and the patient’s family are close friends. But how does this friendship affect practice? It is clearly wrong to date a patient. Indeed, if we are going to have a romantic relationship with a patient, we should fire that patient from our practice and limit our relationship to one sphere: friend. But dating is a point on

the continuum in the spectrum of relationships, which can range from pursuing someone romantically to being friends to accepting an invitation to dinner to attending a fundraiser at the country club organized by a patient. You are there in the role of doctor *and* friend *and* as a member of the community (here is that *gemeinschaft* thing again). This can make it very uncomfortable, especially when the roles get mixed.

One poignant example in my own life occurred at a wedding. I was told that a patient of mine was snorting cocaine in a bathroom. So was it my job at that point to leave the party and intervene? After all, we were not in the office. Should I ignore it and (maybe) feel guilty during the reception?

This raises larger questions. Where do you draw the line between your personal privacy and the needs of the community? Like it or not, you have more authority than other people and will be called upon when there is a need, in the office or not. You should not minimize the importance of this role. Your “good name” is at stake with every decision you make. And the consequences may be dire. If you lose your “good name,” patients may have nowhere else to seek care. Much as there is a continuum of friendships, there is a continuum of trust in your competence, your discretion, and your personality.

So this brings us back to the case and the question of what degree of communication about patients and family members is acceptable outside of the office situation as a friend, and how you are allowed to apply this information in the office as a provider. Important information is often divulged in casual (or purposeful) conversation. Obviously, as a physician, you cannot seek out information from, or discuss a patient’s care with, third parties without the patient’s permission. But, just as obviously, you cannot ignore family concerns and unsolicited-but-important information unless specifically forbidden to by the patient, and, by ignoring this information, you risk neglecting a patient. Where you draw the ethical line will differ with each case. Our job is to realize that there is ethical weight to such choices and act accordingly.

So how about John? We have a duty to maintain confidentiality as well as a duty to protect. How do we deal with this conflict?

John has asked us not to discuss his care with his family. We must honor his request. The next time you see John’s son, you must firmly let him know that John requested that you not speak with him about his medical care. This may be uncomfortable and cause internal conflict because you are now trying to establish a *gesellschaften* relationship with John’s son (at least as far as his father’s care goes), and the natural thing in a rural community is more of a *gemeinschaften* relationship.

But we also have a duty to protect John. Luckily, we have the law (and, I would argue, ethics) on our side. If, in our judgment, John becomes unsafe and unable to care for himself to a degree that we judge him a “dependent adult,” we legally have

the option of contacting health and human services in the community for an intervention.

I would also argue that, if he has Alzheimer disease, John is no longer the same moral agent he was before its onset, and discussing his care with his family may—the emphasis on “may”—be ethical. Review the development of rights in your mind. As children get older, they gain capacity, become moral agents and, as such, gain the right to drive, vote, and drink alcohol. In some senses, the process occurs in reverse for those with Alzheimer disease. It is clear that when one is severely demented, one loses the capacity, and therefore the right, to make decisions except through (one hopes) a benevolent surrogate. But you can also think of the loss of rights as occurring in stages. When John’s dementia gets to the point that he is a danger to himself and others (driving erratically, not eating), it can be argued that the degree of dementia present has led to the loss of capacity and therefore some rights, primarily in this case the right to drive (and perhaps to live by himself).

Where you draw this line in your own practice is up to you. It is critical that you confirm for yourself that there is a problem and that you discuss it with John first. Do not take the restricting of a patient’s rights lightly. But if you have assured yourself that John no longer has capacity to balance his checkbook, for example, and therefore may suffer imminent harm, I would conclude that you have the right to discuss it with the family. Because of dementia, John has lost the capacity and therefore the right to handle his finances. At this point, your duty to protect outweighs his right to confidentiality, at least in the financial sphere. As his dementia worsens, he may lose the right to drive, the right to confidentiality, and finally the right to live on his own. It is uncomfortable to countermand a patient’s wishes, but it is a reality. This is not to say that we should protect rational patients from bad decisions. We can only intervene when there is a loss of capacity in a particular sphere of functioning.

In summary, we need to balance the duty to protect with the patient’s right to confidentiality. At some point, the patient may lose capacity in a particular sphere and the balance may tip; maintaining confidentiality would harm the patient. It is at that point that you can discuss John’s care with his family.

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Related in VM

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CLINICAL CASE

Rural Primary Care—Working Outside the Comfort Zone

Commentary by William A. Nelson, PhD, and Cathleen E. Morrow, MD

Dr. Burke entered the exam room. “Good morning, Jim,” she said cheerfully. “I hear you’re having some trouble with that elbow of yours.”

Jim was one of her favorite patients. When Dr. Burke first moved to this small town in Wyoming, she had been nervous about taking over from a physician who had been working in the community for decades. Although Jim wasn’t one to mince words, he had never questioned whether she was experienced enough to be managing such a large practice on her own.

“You got that right,” he said. “Can barely move it. Never had any trouble with this one, either. It’s usually my hip that acts up this time of year.”

Dr. Burke examined the joint. It was swollen, stiff, and warm to the touch. Jim had a history of osteoarthritis complicated by the fact that much of his work—he was a farmer—required him to be active. He never complained and usually carried on with his work regardless of how he was feeling.

“Well,” she said, “I think we’ll need to aspirate some of the fluid from your elbow to make sure this isn’t from an infection. If it’s your osteoarthritis acting up, we can deal with that pretty easily, but if you’ve got an infection in the joint we’ll need to have some more aggressive treatment.”

“Whatever you say, doc,” Jim said. “You’re the boss.”

Dr. Burke hesitated. She had done a couple of aspirations before, but in her family practice residency most similar cases had been referred to a rheumatologist. She wasn’t entirely certain she had the expertise for a procedure like this, and, should complications arise, there were no other physicians around for miles.

“I’m a little reluctant to do this here in the office,” she said. “I think you’d be better cared for if a specialist handled this one.”

“Well now, I don’t know about that,” Jim said. “I don’t know if I can get away for that long. My wife would have to drive me—she’d miss work. I don’t want to inconvenience her. It’s just a swollen elbow, after all. Are you sure you can’t take care of it here?”

Commentary

Rural health care ethics is becoming the subject of a growing body of literature [1-4]. This case is a classic example of a rural health care ethics situation; the rural context significantly influences the presentation of the ethical conflict, as well as the response [2]. Many of the characteristics of a rural community—limited access to specialists (including ethics consultants), professional and geographical isolation, local perceptions and expectations surrounding health, and overlapping personal and patient relationships [3, 4]—contribute to the case’s complexity. In many rural settings, family physicians tend to be the only doctors in a large area, with few specialists nearby to handle referrals. Dr. Burke practices in a small town, and when patients need hospitalization, they are probably cared for in a critical access hospital (CAH) with 25 beds or fewer. A recent national study noted that only 60 percent of CAHs have formally established ethics committees and ethics consultation services [5], so Dr. Burke may well lack a consult option nearby.

Dr. Burke is most likely an integrated member of a community where “everyone” knows each other. She probably encounters her patients regularly at community gathering places, such as church, the grocery store, and the post office. Dr. Burke undoubtedly provides care for neighbors, friends, and at times, family members. In close-knit settings, overlapping personal and professional environments can foster a high level of trust between patient and physician.

Another common characteristic of rural health care is reflected in Jim’s perception of his elbow problem. Patients’ ideas about health and illness are influenced by their cultural perspective. Many rural residents, particularly those whose livelihoods depend upon physical labor, seek health care only when they are unable to work [6]. Jim expresses reluctance to see the distant specialist because of the time required and the inconvenience driving him will cause his wife. He also wonders if his condition is really serious enough to justify a lost day of work. Should Dr. Burke perform the procedure despite limited experience? Or should she refer Jim to a specialist?

Ability to perform the wide range of procedures called for in underserved settings is an additional clinical challenge that rural providers face. While the majority of primary care doctors would be comfortable with the relatively straightforward procedure called for in this case, not all would be. While Dr. Burke has done “a couple aspirations” before, she clearly does not feel at ease. There may be other considerations at play in her discomfort; we learn early on that Jim is one of her “favorite patients.” Physicians who have social or personal relationships with their patients will occasionally struggle with fears about patient outcomes. What if she proceeds and Jim develops a complication with long-lasting effects? Furthermore, not only is she personally invested in his health, but any poor outcome will most likely become known in a small, close-knit community. While physicians in all settings struggle with the risk of a potential poor outcome, rural settings tend to place providers in daily contact with these potential poor (and excellent) outcomes.

Often, in the rural setting, the proximity or distance of a specialist is the determining factor in whether or not a primary care physician will recommend a referral. This has most likely contributed to Dr. Burke's limited experience in handling this relatively common procedure. Does the town's geographic relationship to specialists change the ethical import of Dr. Burke's decision? No clinician should feel forced to perform a procedure that he or she feels uncomfortable with. But every practicing physician realizes that a considerable portion of the residency training experience was spent working at the edge of his or her comfort zone. Resident physicians learn by performing procedures, generally under the watchful eye of an attending physician or senior resident with far more experience and training. Moreover, physicians who choose to practice in rural regions will occasionally be "forced" to deliver care that they have limited experience with, most notably in emergencies when they are the most skilled people available. It is the very nature of rural work that these circumstances will arise, and presumably no physician accepts the responsibility to work in such an environment without recognizing that.

What are Dr. Burke's ethical responsibilities to her patient under these circumstances? Several options are worth considering. Rural providers know that a phone call to a trusted colleague at the medical center can be very helpful. A description of the case to her consultant rheumatologist may provide her with the reassurance and confidence she needs to proceed or the advice that spurs her to make a strong recommendation to Jim that he see the rheumatologist. Dr. Burke must also consider the potential for a delay in diagnosis. If Jim does indeed have a septic joint, time may be of the essence, and her ability to obtain a small quantity of fluid to confirm or deny that possibility may make a significant difference in his long-term outcome.

If Dr. Burke chooses to proceed, is it her ethical responsibility to inform Jim of her limited experience with this particular procedure? There will be disagreement on this point, and ethicists and physicians may see this from differing points of view. Doctors with extensive experience in rural areas will acknowledge that procedures are often performed, despite limited experience, without informing patients of such limitations. Certainly in emergency care, time may not allow for such disclosure. However, given the circumstances in this case, ethical behavior calls for full disclosure during the shared decision-making process to facilitate an informed decision on Jim's part. Jim can choose to have Dr. Burke either perform the procedure or help to facilitate an appointment with the rheumatologist. Given that a delayed diagnosis could be dangerous to Jim if he indeed has a septic joint, Dr. Burke has an ethical responsibility to ensure that the specialist is aware of the significance of timeliness in this particular referral.

Once Jim has been cared for, Dr. Burke should prepare for the next time a similar situation occurs. She might review the availability of her network of specialists and choose to identify an ethics resource that she can readily contact should she find herself in a similar situation in the future. A network of supportive colleagues,

specialists, and resources is critical to “survival” for all clinicians, particularly those working in isolated environments.

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CLINICAL CASE

Patient Privacy and Mental Health Care in the Rural Setting

Commentary by Tom Townsend, MD

Mary was a 42-year-old mother of four children in a small town in rural Wisconsin. On this particular afternoon, she had come to see Dr. Wilson because she had been feeling tired and “out of sorts.” Dr. Wilson knew that her father had recently passed away and was aware that Mary had struggled with depression in the past. He asked his medical assistant to give her a brief questionnaire to screen for depression, performed a quick examination, and discussed Mary’s health concerns with her in order to rule out an underlying physical cause. After seeing the results of the questionnaire and talking with Mary, there was no doubt in his mind that she was suffering from depression.

“Listen, Mary,” Dr. Wilson said gently. “I know you’ve been having a hard time lately. There’s been a lot going on in your life, and it’s natural to have some difficulty with that. It might be time to address your depression.”

Mary nodded. “I know,” she said tearfully. “I feel like things are getting out of control. I just want to feel like myself again.”

Dr. Wilson paused. He didn’t want to prescribe antidepressants to Mary without concurrent cognitive therapy.

“The mental health clinic over in Lakeview has a psychiatrist in whom I have great confidence,” Dr. Wilson said. “This is her area of expertise, and the clinic also offers counseling services. It might be helpful to have somebody to talk to about everything that’s happened recently. How would you feel about that?”

Mary drew back. “No,” she said vehemently. “Absolutely not. Look, I work at the elementary school! I play organ for the church every Sunday. Everyone knows my car, and if they see it at the mental health clinic, they’ll know it’s me. I don’t want people to think I’m crazy. No one will want to trust me with their kids if they think I’m a nutcase! I don’t see why I should go somewhere like that when you could just treat me here.”

Commentary

Country doctors “do,” or see and treat, many psychiatric problems, both in terms of the number of patients and the variety of diagnoses. Primary care physicians, not mental health professionals, treat the majority of patients with symptoms of depression; in fact, it is the second most common chronic disorder they see—on

average, 12 percent of their patients have major depression [1]. In rural areas, physicians are in short supply, patients live far from health care delivery sites, and populations tend to be older, sicker, and poorer than their nonrural counterparts [2, 3].

Rural physicians fill many roles in their communities and are expected to counsel patients not only competently, but with the awareness and sensitivity that respects neighbors and their acknowledged familiarity in a small community. Rural people typically know a lot about each other. Dr. Wilson, in this case, faces several representative clinical and ethical challenges of caring for a patient with a psychiatric ailment.

Roberts and Dyer identify several concerns central to “small community” ethics: (1) overlapping relationships, conflicting roles, and altered therapeutic boundaries; (2) confidentiality concerns; (3) cultural dimensions of care; (4) limited access to clinical care, mental health care, and ethics resources; and (5) the special stresses of small-community clinicians, which are discussed below [4]. Each of these factors speaks to the particularities of delivering ethical care in the rural setting.

Overlapping, or multiple, relationships foster familiarity between doctor and patient and raise a concern about boundary conflicts. We see the result of familiarity in Dr. Wilson’s early suspicion and detection, through his brief questioning and then the questionnaire, of Mary’s clinical depression. He suspects her depression because of his knowledge of her personal life. While Mary seems to resist or initially deny the diagnosis, she realizes the special significance of their relationship. It seems that she is requesting, or perhaps demanding, that Dr. Wilson simply treat her, to keep her from having to go to Lakeview.

Professional relationships between country doctors and their patients represent to some of us an idealized long-term relationship that involves friendship and warmth as well as professional responsibility. An ethical relationship with strangers, typical of relations of the city, is different from the ethics of intimate relationships in rural communities, and this distinction is key to many differences between urban and rural health care ethics. There are fewer people in rural America, and relationships are often more intense [5]. In addition to being competent counselors, rural physicians are expected to act with the awareness and sensitivity to take into account their acknowledged familiarity in a small community.

Mary’s previous bouts of depression presumably resolved. This can offer reassurance and be incorporated into the country doctor’s frequently used and vital tool—the reassurance of having known someone for a long time and being able to truthfully offer the supportive observation like, “Well, I’ve seen you come through worse times than this.” It is the strength of the familiar relation over time that allows such observations to be utilized—when true.

There may not be a clear line between what is learned in the grocery store or at a place of worship or at a ball game and what is expressly reserved for the exam room. Familiarity is quite normal and unavoidable in rural life and could actually create clinical and ethical benefits for Dr. Wilson and Mary. Their relationship is different than if they were to only see each other in the professional realm—the doctor knows not only of the pharmacologic successes and disappointments during previous bouts of depression, but also where she got the major family or social support she relied on in stressful times.

Maintaining confidentiality in rural communities is sometimes not merely challenging, but actually impossible, as Mary has pointed out: everyone recognizes her car and will know that she's at the mental health clinic. As peculiar as this may seem to some urban audiences, this particular aspect of multiple relationships in small communities can serve as an ordinary, but significant, form of networking. Some rural populations maintain a culturally important belief that sharing information between neighbors is usually beneficial and customarily outweighs any potential harmful outcomes [6]. This sharing of "small" knowledge of others' comings and goings is critical to understanding the difference between rural and urban ethical concerns and outcomes.

Experiences in rural practices often confirm these benefits, and neighbors seldom find it awkward to suggest that sharing of health-related information can be beneficial to patient care. The downside of having so much outside-the-clinic information is that country doctors, just like anyone else, can make inaccurate assumptions and misunderstand what is worrying a patient. Some of my most distressing mistakes with patients have been related to a seemingly innocuous reassurance—"Oh, that's nothing to worry about"—when in fact their concern is of the highest importance [7].

Because of persistent American cultural attitudes, Mary is right that risking public knowledge of a mental illness diagnosis may lead to her being stigmatized, particularly if her community equates mental illness with instability or violence or doesn't make distinctions between different diagnoses. Being seen as an incapacitated or absent member of her community may result in Mary's and perhaps her family's being isolated or stigmatized. In more populous, and therefore more anonymous, settings, this risk may be less pronounced—mental health care may be easier to seek discreetly.

Mary may also be reluctant to utilize precious mental health resources more appropriate for others—maybe those more financially challenged, but also those more psychiatrically or psychologically challenged. This particular cultural issue is very important for rural communities, whose residents may harbor both the belief that using more than their "fair share" of resources is wasting them and also a competing belief that it is their responsibility to keep a local practice afloat by using a local doctor or hospital even when their interests would best be served by transfer to a larger facility [8, 9].

It would be ideal to house mental health and clinical services in the same clinic so that access could be ensured, stigma reduced, and consultation between the family doctor and mental health specialists encouraged. Telepsychiatry is another possible alternative. The technology is now more widely available and affordable to rural practitioners, and it has found a niche in many states where it is often paid for through state-funded health coverage for the poor.

Roberts and Dyer also mention the stress of the rural clinician. Is physician stress the reason Dr. Wilson suggests Mary see a psychiatrist, rather than taking on her care himself? He must understand how significantly stigma can distress a patient, particularly one already struggling emotionally. Not only should Dr. Wilson recognize the stigmatization, perhaps he should realize the inadvisability of taking the referral route any further. And clinicians who understand this important tenet of rural practice can go on to help diminish the stigma of mental illness by working at the community level to increase awareness and perhaps identify resources for further help.

Maybe Dr. Wilson believes he won't be able to treat Mary as effectively as the psychiatrist in Lakeview could. But I think that a perceptive country doctor with a close relationship to the patient would offer not just adequate care, but probably the best care to someone like Mary. Experience with the community, its culture, and its health care system can contribute to excellent psychiatric treatment. A specialist would be able to offer Mary pharmacologic agents and psychiatric resources, but he or she would not have the relationship or commonalities with Mary that Dr. Wilson has.

David Loxterkamp, practicing family medicine in Maine, once reported on a hectic day in his clinic during which a number of people came to see him for a variety of nonclinical ailments. After one beleaguered woman had talked to him about her unhappy childhood, he asked her why she had come in that day, with no particular clinical complaint. She replied that the priest was out of town and she felt that "somebody needed to know" the story she'd told him. The general practitioner can offer understanding and a simple act of kindness; Loxterkamp reminds us that patients will put their trust in those who shoulder the suffering and uncertainty of illness, the grief of painful life events [10]. His tale is a common one in rural practice and suggests possible clinical outcomes influenced by this relationship that may beneficially overlap some boundaries. Dr. Wilson's management of Mary's case should remind us of that.

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MEDICAL EDUCATION

Wisconsin Academy for Rural Medicine—An Initiative to Increase Physician Workforce in Rural Wisconsin

Byron J. Crouse, MD

At the turn of this century, the University of Wisconsin School of Medicine and Public Health (SMPH) participated in statewide focus groups, public surveys, and other assessments that indicated a need for strategies to address health disparities in rural Wisconsin. In 2005, approximately 30 percent of the population in Wisconsin, but just 11 percent of its physician workforce, resided in rural areas. The number of graduating SMPH medical students expressing an interest in practice in rural, medically underserved areas was a low 3 -5 percent [1]. The SMPH decided to enhance its efforts to address the physician workforce needs in rural Wisconsin by coordinating and expanding existing rural programs and curricula.

Shortly after this, rural hospital administrators ranked inadequate physician workforce as the most urgent threat to the future of rural hospitals. Primary care physicians were most greatly needed, but general surgeons and a number of other specialists were also in demand. In 2003, a task force comprising representatives from the Wisconsin Hospital Association, Wisconsin Medical Society, several health systems, and the state's two medical schools began meeting to assess this issue. The task force published its report, *Who Will Care for Our Patients?* [2] in 2004, recommending that one of the medical schools develop a program to increase the number of students planning to practice in rural Wisconsin.

The SMPH is a state medical school with academic partners in Milwaukee (Aurora Health Care), Marshfield (Marshfield Clinic) and LaCrosse (Gundersen Lutheran Health System), as well as a number of other community clinics and hospitals throughout the state. In 2004, the SMPH moved into a new building that could accommodate classes of 175 students, 25 more than the previous class size.

With financial support from the Wisconsin Partnership Program, representatives from the SMPH faculty, rural hospitals, the state academic affiliated institutions, and Wisconsin communities and county public health departments planned the design and implementation of the Wisconsin Academy for Rural Medicine (WARM), a rural program for 25 medical students in the School of Medicine and Public Health. An advisory committee served as a sounding board for ideas about admissions, student services, delivery of the curriculum, and faculty development at the regional and rural sites. Each of the three SMPH academic partners identified rural clinics and hospitals that could host students and provide instruction.

Approaches to admissions used by other rural medicine programs were adapted to the school's process [3-5]. In addition to a record of academic success, factors that have been found predictive of rural practice, such as being from a rural community, rural community engagement (e.g., coaching kids' sports teams, community service), demonstrated interest in rural life, and interest in a generalist practice, were incorporated into the admissions criteria. A supplemental application and an interview with a WARM representative assist in identifying the applicants most likely to practice in rural Wisconsin. A subcommittee reviews applicants to the WARM program and recommends candidates to the SMPH admissions committee.

WARM students complete the first 2 years of medical school in Madison with the students in the traditional program, but are assigned to rural clinics in the Madison area for the required clinical experiences during those years. Elective rural summer externships and research opportunities are available to WARM students between the first and second years.

The WARM students then select one of the regional sites (Marshfield, LaCrosse or Green Bay (with Aurora/BayCare) to serve as their hub for the third and fourth years. During this time, 7 months are spent in rural communities surrounding their hub, each of which has developed its own approach to the rural immersion experience based on the educational opportunities available. Marshfield chose a more traditional rotational block approach, with some rotations in rural areas and others at the tertiary center. LaCrosse developed an integrated approach in which the students spend 6 months in the tertiary center and 6 months in a single rural community, where rotations are structured in an integrated, longitudinal manner rather than in three focused blocks. Green Bay is structuring the experience with 2-month required rotations in a rural community early in the third and fourth years along with ongoing experiences with a panel of patients at the same site throughout the third and fourth years.

In addition to the regular curricular requirements, WARM students must complete curricular components based on recommendations from the rural medical educators' group of the National Rural Health Association. These components were incorporated into an elective course for WARM students in their first 2 years of medical school and a Rural Core Day curriculum that occurs once a month during the third year.

Program evaluation thus far has consisted of annual surveys and focus group assessments by the WARM students, who are also subject to the required SMPH academic assessment. As anticipated, because of the admissions process, students maintain a high level of interest in rural practice throughout medical school (8.86 to 8.89 on a 1-10 scale) and their "confidence" in this desire has been found to increase as they progress through the program. The students' specialty interests align with the specialty needs in rural Wisconsin: of the current 53 students, 53 percent expressed an interest in family medicine; 18 percent in primary care, internal medicine, or

pediatrics; 10 percent in general surgery and orthopedic surgery; and 9 percent in emergency medicine.

The number of applicants to the WARM program has been growing as awareness of it increases. There are a number of applicants from rural settings whose attributes suggest they would be excellent rural physicians, but whose academic records do not meet SMPH admissions requirements. To address this, we are considering whether to offer these candidates the opportunity for a year of focused study after college to prepare them for the academic rigors of medical school, an initiative similar to the Rural Medical Scholars Program in Alabama [6]. We are also working to increase the financial support available for rural students. With the average income in rural areas being lower than in the rest of the state, the need for financial support is great; this may interfere with the ability of promising students to attend medical school.

The first WARM students will graduate in May of 2011. While the program needs to be continually assessed to see that long-term goals are attained, early outcomes suggest that WARM has been successful so far. This is due, we believe, to an admissions process designed to admit those with an increased probability of practicing in rural Wisconsin, collaborative delivery of the curriculum with rural partners, and encouragement of the students' interest in rural medical practice, community engagement, and rural living.

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JOURNAL DISCUSSION

Recognizing and Resolving Ethical Dilemmas in Rural Medicine

Tiffany L. Shih and Joshua J. Goldman

Cook AF, Hoas H. Ethics and rural healthcare: What really happens? What might help? *Am J Bioeth.* 2008;8(4):52-56.

The National Rural Bioethics Project (NRBP) has sought for nearly a decade to better understand the specific ethical problems and questions of health care in the rural context [1]. Ann Freeman Cook and Helena Hoas synthesize findings on these topics to paint a picture of the bioethics landscape in rural health care organizations.

Ethics committees are less prevalent in rural hospitals than elsewhere, they do not fulfill the typical role, and they are seldom used. By 1985, 60 percent of U.S. hospitals had ethics committees, and the bioethics literature now suggests that such entities exist in most hospitals throughout the country [2]. But only 41 percent of rural hospitals in a six-state survey reported having an ethics committee [3, 4]. The committees that do exist, Cook and Hoas report, are mainly devoted “to the education of the members,” rather than “policy development or review, patient advocacy, research, evaluation, or case consultation” [5]. Seventy-six percent of rural physicians who participated in a multi-state study reported they had *never* referred a case to an ethics committee at any time during their training or career—even when they were available, there was no significant difference in their rate of use.

Health care personnel in rural areas do not see bioethics analysis as applicable to the problems they face. Most rural health care workers were familiar with landmark bioethics cases, models for ensuring ethics care (e.g., ethics committees), and standard services (e.g., case consultation), but few had any experience with them [3, 6], formal ethics training in the rural setting was limited [3], and they reported feeling “that the ethical problems they encounter seem mundane, too frequent, and too common for analysis in venues like ethics committees” [7]. Rural physicians and nurses defined the most useful ethics resources as spouses, peers, or the Ten Commandments [2].

A lack of consensus about what constitutes ethical behavior leads to hesitancy and inaction. Cook and Hoas cite a study in which physicians and nurses suggested 83 potential “combinations of actions” would be appropriate responses to “an ethically problematic situation,” none of which the authors felt would be effective [5]. This lack of consensus appears to lead rural health care professionals to respond to ethical dilemmas with a kind of stubborn inaction: the authors cite another study that found

that “one in four nurses was not willing to take action when orders [for patients] were unclear,” and many fewer than that were willing to take action on *any other* kind of problem, “even when the issues clearly heightened the potential for harm, compromised autonomy, inhibited disclosure, or created other ethical problems” [7].

These findings beget several questions about the role of medical ethics in rural health care. Why do rural physicians see bioethics analysis as inapplicable to the dilemmas they experience frequently? Why do bioethics committees have a different role in the rural than the nonrural context? Why is there such a lack of consensus about ethical behavior among rural health care workers? And what can be done?

Typical Dilemmas

One of the particular attributes of rural health care is the connection between health care professionals and the community; it is underscored by the obvious importance of “familiarity, trust, mutuality, and caring for one another as family” [8]. At first glance, familiarity and interconnectedness would appear to be a boon to the relationship between clinicians and their patients, but what happens when this closeness hinders the physician’s ability to make responsible decisions or raises difficult ethical quandaries?

Cook and Hoas note that bioethics colleagues often suggest that the problems routinely encountered by rural health workers would be better addressed by “peer review, quality control, credentialing, or patient safety” measures rather than ethics committees [1], but the authors assert that in the rural context, the dividing line between “practical” and “ethical” is often blurred—or nonexistent.

Example 1: An 86-year-old patient with vast influence in the community wanted a surgery for incurable cancer that would not be fully covered by Medicare, and “the healthcare providers registered their concerns about risks and futility of surgery but acceded to family wishes because the old gentleman was influential, well known, and well respected in the community; there was no desire to antagonize either the patient or his family” [7]. The same hospital denied the child of a less influential family vaccination because they were unable to pay for it.

This scenario illustrates how power and prestige play into the allocation of hospital funds and hints at the calculus of which “relationships...can be honored or sacrificed” [7]. The hospital Cook and Hoas describe was willing to accrue financial burden in order to avoid causing friction with an influential family, but could not extend that same treatment to everyone in the area. “So, explained one healthcare provider... ‘the burden kind of falls on the professional, on being able to blend these problems of knowledge, emotion and finances’” [7]. Financial concerns are less likely to land on the shoulders of a single health care professional at a large hospital. At larger institutions in less remote areas, a bureaucracy, including ethics committees, is involved in setting priorities and making coverage decisions—the physician is not making these decisions in a vacuum, on the fly, and may be less likely to have personal relationships at stake.

Example 2: A pharmacist corrects a medication dosage that could have been lethal for a patient, without asking the physician or making the physician aware of the error, because “the physician’s behavior is not likely to change; in fact there is a quiet understanding that his orders often have to be adjusted and the pharmacist and nurses are expected to be ‘on the lookout....One pharmacist explained: ‘I went ahead and fixed it because I wasn’t going to take no for an answer anyway. So why ask’ [7].

Should the pharmacist have changed the order without consulting the physician? Given the closeness of the rural community, relationships must be carefully fostered and maintained. Most would agree that the moral obligation in this case is to protect the patient. One might argue that if the patient receives the correct dosage, then the route by which he or she gets it is of little importance. Others might claim that consultation with a physician prior to changing orders is paramount to the effective treatment of a patient.

In addition to the correction of the order, the physician’s error should be brought up—but by whom and to whom? Who has, or should have, the authority to do this? The hospital in this example lacks a system for identifying, noting, and remedying both medication errors and the kind of “incompetent” prescribing that occurs in this scenario, creating a situation in which a physician can just dig in his or her heels and refuse the correction of dangerous errors. Cook and Hoas quote a nurse who bluntly stated that “resources are limited and you have to think about what to do or say...if you want to be here until you retire” [9]. Though this may be considered a patient safety concern, it is easy to see how a lack of safety resources turns this into an ethical dilemma for the individual health care worker.

Example 3: A physician performs some procedures incorrectly. Hospital administrators and other physicians are aware of the problem, but “if limits are placed on a physician’s ability to perform certain tasks, he may leave the community or he may stop referring patients to the hospital.... The other physicians...also note that he is a call partner, there are times they have to depend on him, and he performs some procedures very well” [7].

Though it may seem that immediate intervention is the only appropriate recourse, would that benefit the patient or community? One thing to consider is that antagonizing the physician may hurt the community. It is well known that there are not enough physicians serving rural America; the need for physicians—some might argue, regardless of competency—is urgent. Wouldn’t patients benefit more from substandard care than no care at all?

Taken together, these 3 examples paint a picture of the considerations specific to rural care. The power structures and relationships in rural health care affect allocation of resources, hierarchy, care quality, and other everyday aspects of health care “pose formidable barriers that inhibit recognition and resolution of ethical problems” [9]. Cook and Hoas report that the stresses of trying to balance all these

competing factors without institutional support saps health care workers' professional satisfaction and resolve, driving many physicians away from their positions after very short periods of time [9].

Potential Remedies

In order to better attend to ethical issues in rural medicine, Cook and Hoas have undertaken a three-step approach:

- (1) Work to make rural professionals more willing to take action about ethics problems and make use of ethics frameworks and resources. Cook and Hoas say they are working to “broaden our understanding of what issues merit ethical scrutiny [even when they] do not meet the ‘ethical litmus test’” [9], an informal standard set by nonrural bioethicists, and provide appropriately tailored resources.
- (2) This means creating interactive, interprofessional, practical materials that take what one respondent called a “not-for-experts-only approach” [9]. Cook and Hoas have developed such materials as “case studies, bookmarks, readers’ theater scripts, fact sheets, booklets, and various web-based tools” that suggest language with which health care workers can talk about these issues [9].
- (3) Cook and Hoas also underscore the “need to identify the system-level interventions that facilitate a sense of institutional support for ethical behavior” [10]. They seem to believe the most effective way to do this is to gently challenge the behavioral norms that encourage hierarchical, uncommunicative “traditional” interprofessional relationships.

Ethics education should be instituted in rural communities. Since “only 41 percent of nurses and 33 percent of physicians who participated in that study said previous coursework in ethics was helpful when trying to resolve the problems they encounter” [4], it seems that many rural physicians lack experience in bringing cases for consultation and may be unaware of how effective that process can be. The key is showing health care professionals the value of *applied* medical ethics. Emphasizing the importance of ethics committees and institutional efforts to foster dialogue about ethical issues may help reduce hesitancy about using such services.

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CLINICAL PEARL

Diagnosing Rheumatoid Arthritis

Bogdan Cherascu, MD, MS

Rheumatoid arthritis (RA) is a common, chronic autoimmune disease with high morbidity and mortality. RA prevalence is approximately 1 percent worldwide, with higher rates among Native Americans and lower rates in Asia and rural Africa. Twice as many women as men have the condition, and the mean age of those affected is 66 (incidence climbs beginning at age 40 and declines after 70). In recent years, the mean age has risen, and there has been a small decline in prevalence [1].

The disease is accompanied by chronic pain and functional impairments (with the resulting loss of productivity and disability) caused by varied degrees of joint destruction—until recently considered an inexorable consequence of the disease. Within the last few years, it has become apparent that the earlier the disease is diagnosed and the sooner the treatment with disease-modifying antirheumatic drugs (DMARDs) is started, the better the outcomes—there may be a “window of opportunity” in which prompt recognition and treatment of RA can lead to sustained remission and prevent all or most structural joint damage [2, 3].

It is therefore important to be familiar with RA presentation. Until late last year, however, the classification criteria for RA had not changed in more than 23 years. The 1987 RA classification criteria, though quite specific, were less sensitive for early disease, instead emphasizing features of more advanced disease like rheumatoid nodules, radiographic changes, and extraarticular manifestations. The new classification criteria, released by both the American College of Rheumatology and the European League Against Rheumatism in 2010, emphasize early diagnosis through recognition of characteristic symptoms and exam findings, aided by laboratory tests (see table 1).

Thus, symmetrical polyarticular small-joint arthritis (that affecting many small joints)—especially that associated with positive serology and a systemic inflammatory syndrome (elevated erythrocyte sedimentation rate [ESR] or levels of C-reactive protein [CRP])—will be classified as RA unless an alternative diagnosis is apparent. The longer the duration of symptoms, the higher the likelihood of RA, but that is no longer a requirement—making it possible, under the right circumstances, to diagnose RA within the first few weeks of onset.

Table 1. 2010 RA classification criteria [4]

	Score
Target population (Who should be tested?): Patients who 1. have at least 1 joint with definite clinical synovitis (swelling)* 2. with the synovitis not better explained by another disease**	
Classification criteria for RA (score-based algorithm: add score of categories A–D; a score of = or >6/10 is needed for classification of a patient as having definite RA)***	
A. Joint involvement	
1 large joint	0
2-10 large joints	1
1-3 small joints (with or without involvement of large joints)	2
4-10 small joints (with or without involvement of large joints)	3
>10 joints (at least 1 small joint)	5
B. Serology (at least 1 test result is needed for classification)****	
Negative RF <i>and</i> negative ACPA	0
Low-positive RF <i>or</i> low-positive ACPA	2
High-positive RF <i>or</i> high-positive ACPA	3
C. Acute-phase reactants (at least 1 test result is needed for classification)	
Normal CRP <i>and</i> normal ESR	0
Abnormal CRP <i>or</i> abnormal ESR	1
D. Duration of symptoms	
<6 weeks	0
= or >6 weeks	1

* The criteria are aimed at classification of newly presenting patients. In addition, patients with erosive disease typical of rheumatoid arthritis (RA) with a history compatible with prior fulfillment of the 2010 criteria should be classified as having RA. Patients with longstanding disease, including those whose disease is inactive (with or without treatment) who, based on retrospectively available data, have previously fulfilled the 2010 criteria should be classified as having RA.

** Differential diagnoses vary among patients with different presentations, but may include conditions such as systemic lupus erythematosus, psoriatic arthritis, and gout. If it is unclear about the relevant differential diagnoses to consider, an expert rheumatologist should be consulted.

*** Although patients with a score of <6/10 are not classifiable as having RA, their status can be reassessed and the criteria might be fulfilled cumulatively over time.

**** Negative refers to IU values that are less than or equal to the upper limit of normal (ULN) for the laboratory and assay; low-positive refers to IU values that are higher than the ULN but ≤3 times the ULN for the laboratory and assay; high-positive refers to IU values that are >3 times the ULN for the laboratory and assay. Where rheumatoid factor (RF) information is only available as positive or negative, a positive result should be scored as low-positive for RF.

Let's consider the following clinical scenario: a 35-year-old woman presents to your office. For 4 weeks, she has experienced joint pain and stiffness for an hour each morning. A physical exam shows synovitis of the wrists and symmetrical pain and swelling in the small joints of hands and feet, particularly the metacarpophalangeal joints (MCP 2-5 bilaterally), proximal interphalangeal joints (PIP 2,3 on the right and 3 on the left), and metatarsophalangeal joints (MTP 4,5 bilaterally). What is your diagnosis? You should bear in mind all appropriate possible diagnoses (e.g., postviral arthritis, paraneoplastic syndrome, and other inflammatory arthropathies).

However, if there is serologic evidence of inflammatory activity with negative workup for alternative etiologies and supporting serologic test results (positive rheumatoid factor [RF] or anticyclic citrullinated protein antibodies [anti-CCP]), your diagnosis is RA.

Based on the new classification criteria, you do not even need the positive serology to make this diagnosis, if there is either persistent disease (lasting longer than 6 weeks) or proof of a systemic inflammatory syndrome (elevated ESR, CRP, or both). (The "gold standard" used in developing these criteria was the likelihood that the patient who met these criteria was being treated with methotrexate or another DMARD at one year after presentation, with no alternative diagnosis found [5].)

In conclusion, RA presents as a symmetrical, small-joint arthritis with palpable synovitis, associated systemic symptoms including morning stiffness for one hour or more, less likely extra-articular features (like nodules and rheumatoid lung disease—these are often clues to more chronic, unrecognized disease) and possibly radiological changes (in the early stages—periarticular osteopenia, followed by joint space narrowing and, later, periarticular erosions). The joints most often involved are metacarpophalangeal joints (MCPs), metatarsophalangeal joints (MTPs—2,3 most often), proximal interphalangeal joints (PIPs), and wrists, followed by larger joints such as shoulders, knees, and hips (these are less typical, hence the lower weight given them in the classification criteria). DIPs, axial skeleton, and the mid-foot joints are rarely involved. Useful laboratory tests include those for RF and anti-CCP antibodies (eventually present in 80 percent of patients with RA), presence of an inflammatory syndrome (elevated ESR and CRP), and possibly mild anemia.

Differential diagnosis depends on the age and sex of the patient, but should include consideration of postviral arthritis, paraneoplastic syndrome (consider risk factors and other manifestations of underlying malignancy), and other causes of inflammatory arthritis. In particular, one should consider systemic lupus erythematosus (SLE), which has other clinical features, different serology, and more arthralgia and tenosynovitis than true palpable synovitis. Another culprit may be psoriatic arthritis, which has dactylitis, DIP involvement, and skin psoriasis. In older patients, polymyalgia rheumatica (PMR), remitting seronegative symmetrical synovitis with pitting edema (RS3P), and crystal arthropathy must be considered.

Related diseases such as juvenile RA (which tends to be oligoarticular and affect larger joints) and LORA (late-onset rheumatoid arthritis, which may be indistinguishable from PMR at onset, but tends to include more persistent synovitis and be less responsive to prednisone) should be considered as well.

Finally—our patients’ bodies do not read the textbooks; they stubbornly show signs of disease in many different ways. Therefore, it is important to think critically and conduct very careful physical exams to pick up true synovitis and make that early diagnosis inside the “window of opportunity,” so patients have the best possible chance of early treatment and, hopefully, sustained remission.

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HEALTH LAW

Ethical and Regulatory Considerations in Prescribing RU-486

Alyssa Parrish, JD

Ending a case of strep throat and an unwanted pregnancy with the same medical equipment sounds improbable. Through the use of telemedicine, however, a woman can just as easily procure the nonsurgical abortion pill, otherwise known as RU-486 or mifepristone, as she can a prescription for amoxicillin [1]. While telemedicine abortion sounds farfetched, it's becoming a real and concrete solution for patients in rural areas [2].

Planned Parenthood states that this technological intercession is necessary due to some rural physicians' religious oppositions to abortion [2]. The physician opposition—coupled with the scarcity of medical care—is prevalent enough for Planned Parenthood to consider offering telemedicine abortion in a majority of its clinics nationwide. To Planned Parenthood's point, the religious and political controversy over abortion creates an opportunity for the patient's request for the abortion pill and the physician's religious views to clash. This conflict is so likely that soon after *Roe v. Wade*, states began to adopt conscience clauses to protect health care professionals from having to decide whether to violate a tenet of their religion or forsake their careers [3]. And the Supreme Court's decision in *Locke v. Davey* verified that constitutional laws such as *Roe v. Wade* that effectively place health care professionals between Scylla and Charybdis must be cured [4].

While conscience clauses provide safe harbor protection for clinicians, the rural, female patient may be left without a access to a physician willing to perform an abortion. In these circumstances, and given that RU-486 is most likely to work during the first 49 days of gestation, the patient may feel forced to turn to the other avenues—including the Internet—to find it [5]. And an online physician could feel inclined to respond quickly to the patient's request to curtail the need for and risks associated with a surgical abortion. However altruistic the physician's inclinations, the risks affiliated with such intervention may jeopardize the physician's license.

Since telemedicine laws vary by state and the physician who offers medical services to out-of-state patients is subject to the laws of both the home and the remote state, it is crucial to understand both. A majority of state laws and medical board rules do not allow a physician to practice within a state without either a preexisting patient-physician relationship or a full, unrestricted license held within that state. And almost all states have stipulated that the standard of care—which each state defines and its case law shapes differently—is the same whether the patient is seen in person or through telemedicine [6].

To understand the variety of the states' telemedicine laws, let's assume the physician providing the online services is licensed in California and is evaluating a Texas woman who says she is pregnant. After a brief videoconference discussing past medical history, the physician, based on the patient's self-reported data, e-prescribes RU-486 and tells the patient to follow up with a local emergency room or her general practitioner if side effects occur. The treating physician could face sanctions from both the California and Texas medical boards. First, California and Texas require that, in almost all circumstances, a physician perform an exam or a face-to-face consultation, respectively, prior to prescribing medications [7]. Texas law goes one step further and requires the physician to perform a patient identity verification to prevent medical fraud and abuse [8].

In the above scenario, both states' medical boards could argue that the physician strayed from the standard of care. Without performing an ultrasound or even a pregnancy test, the physician's ability to argue successfully that he or she followed the standard of care would prove difficult. In a clinical practice setting, wouldn't a reasonable, prudent physician confirm the gestational timeline of his patient? Highly likely. And wouldn't the same reasonable, prudent physician perform a cursory pregnancy test on this patient? Absolutely. Therefore, the online physician who seeks to cross state lines to provide care must take into consideration many facets of law, ethics, and regulations that constrain the power of technological advances to make health care accessible to the medically underserved patient.

Since medical board rules and legislation are ever-changing, glossing or memorizing the rules occasionally will not suffice for the avid online physician. As recently as March 2011, for instance, Arkansas, Nebraska, Iowa, and Texas have bills in waiting or recently enacted legislation that will require a physician to perform a physical examination before prescribing an abortion-inducing drug. These bills parallel the draft model language created by the nonprofit Americans United for Life (AUL). Reinforcing its prolife stance, AUL states that the regulation is necessary to protect women from abortion providers who are prescribing RU-486 contrary to the FDA recommendations [9]. Both the Planned Parenthood's website—stating it provides the abortion pill up until 63 days of gestation—and two court cases attest to the potential off-label prescribing [10-12].

Regardless of which side prevails, the proposed bills and overwhelming response demonstrate that states may begin further refining and clarifying the sometimes ethereal boundaries of telemedicine and standard of care. It will be interesting to see whether these types of legislation spark constitutional infringement claims. In the past, the Supreme Court has ruled that obstacles to abortion were constitutional as long as they posed no undue burden [13]. Other courts interpreting the decision in *Planned Parenthood of Southeastern Pennsylvania v. Casey* have held that needing to travel across a state line to procure an abortion placed no undue burden on the patient [14]. The Obama administration's 2009 proposed reversal of certain portions of the conscience clause, however, illustrates that the medical and legal status quo is

susceptible to challenge [15]. And with technology providing a lifeline to rural and medically underserved areas, both legislatures and courts have a valid case for preserving even the most controversial types of telemedicine, including telemedicine abortion.

Overall, the practice of medicine via technology is an intriguing but ill-defined practice. And the inability, to date, of case law and medical boards to provide definitive and prescriptive guidance on telemedicine—particularly those unchartered parts of telemedicine like telemedicine abortion—could leave physicians legally and ethically exposed. The advice most health care professionals would give patients who are starting a new medication appears to hold true for physicians who want to expand into the uncultivated sections of cyber medicine: “start low and go slow.” Starting telemedicine efforts locally (in state or in city) and staying abreast of one’s home medical board’s ruling and state’s regulation should be a manageable way to enter this Wild West of medicine. Just because a doctor pulling a remote control lever in State A can cause a pill to magically appear to a person located in State B doesn’t mean that such an act is condoned. And, while the law has lagged behind telemedicine for decades, it appears from the most recent bills and legislation that the states and medical boards are working vigorously to close the gap quickly.

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POLICY FORUM

Federal and State Initiatives to Recruit Physicians to Rural Areas

Daniel G. Mareck, MD

Recruitment and retention of rural health care professionals continues to be a national challenge. A recent study from the Association of American Medical Colleges' Center for Workforce Studies predicts that in the next decade there will be 45,000 too few primary care physicians—as well as a shortage of 46,000 surgeons and medical specialists. Similar primary care findings have been reported for other clinicians, such as physician assistants and nurse practitioners [1]. However, after a decade of dramatic decline in the proportion of U.S. medical school graduates who choose primary care residencies, 2010 and 2011 saw increases in the number who matched into primary care [2-4].

Health professions workforce shortages are exacerbated in rural areas, where communities struggle to attract and keep well-trained clinicians. Rural physician shortages have been documented for at least 85 years [5]. While 19.2 percent of the U.S. population lives in rural America, only 11.4 percent of physicians practice in rural locations [1]. The Bureau of Health Professions' Office of Shortage Designation reports that in February 2011, 65 percent of primary care health professional shortage areas were rural.

Despite medical school initiatives to train rural physicians [6-10], rural areas continue to face greater health professions workforce shortages than do their urban counterparts. Recent HRSA-sponsored research revealed that 77 percent of rural counties in the U.S. are designated as primary care health professional shortage areas or HPSAs. In 2005, 165 rural counties lacked a primary care physician. Many primary care providers are nearing retirement (age 56 or older), and while they constitute 25.5 percent of the clinician workforce in urban areas, they make up 27.5 percent in rural areas and 28.9 percent in remote rural locations.

Well-documented barriers to expanding the rural physician supply include pipeline issues, such as attracting enough interested and academically prepared students from rural areas, and the continuing increase in the cost of medical education. Furthermore, health care delivery can be challenging in rural locations because patients tend to be poorer, sicker, older and less well-insured than their urban counterparts. Other challenges include lower reimbursements for services, clinician lifestyle considerations, spousal career needs, and, for those physicians with children, school quality [1].

Federal Programs

The federal government has taken steps to address the ongoing rural recruitment and retention challenges [11]. Three long-standing programs include Area Health Education Centers (AHECs), Federally Qualified Health Centers (FQHCs), and the National Health Service Corps (NHSC) [12]. AHECs serve as community liaisons with academic institutions and help arrange ambulatory clinical training opportunities for health professions students, emphasizing participation in interprofessional training [13]. Health Centers are community-based and patient-directed organizations that provide comprehensive, culturally competent, quality primary care to populations with limited access to health care, many of which are in rural locations [14]. The NHSC provides scholarship and loan-repayment programs for both allopathic and osteopathic physicians and for other primary care providers practicing in underserved rural and urban areas [15]. These programs all received additional funding support from the 2009 American Recovery and Reinvestment Act and the 2010 Patient Protection and Affordable Care Act legislation. In addition, President Obama has established the Improving Rural Health Care Initiative, included in the 2010, 2011, and 2012 Presidential budget requests to Congress. This initiative charges HHS to improve recruitment and retention of health care providers in rural communities.

Much of this additional funding supports enhancement of the FQHC and NHSC programs. For example, there are currently more than 7,500 primary care NHSC providers—double the number in 2008, although there were still more than 1,600 vacant positions at the end of 2010. There are now more than 7,900 community-based FQHC clinics spread across all states and territories that provide comprehensive primary health care services to approximately 19 million patients, two-thirds of whom are members of minority groups. About 40 percent of FQHC patients have no health insurance and one-third are children. These funding enhancements, along with the annual congressional appropriations, strengthen the rural health care safety net.

Of the three longstanding federal initiatives mentioned above, the National Health Service Corps opportunities are most relevant for medical students and residents. Since 1972, more than 37,000 health professionals have served in the corps, expanding access to medical, dental, and mental health care in shortage areas. Currently, about half of NHSC professionals work in the HRSA-supported Health Centers discussed above, which deliver preventive and primary care services to patients regardless of their ability to pay. The NHSC is creating a long-term network of support for its clinicians. The corps recently signed a cooperative agreement with the National Center for Primary Care at Morehouse School of Medicine to develop an online training portal with content and format specifically tailored to NHSC clinicians serving in isolated settings. In addition to informational and training resources, the portal will include best-practice examples, tools and templates, chat rooms, forums, and file sharing to create a virtual community for its clinicians.

The corps provides both scholarship and loan repayment programs. The NHSC scholarship pays tuition and fees and provides a living stipend to students enrolled in several health professions programs, including accredited medical (MD and DO) schools. Upon graduation, scholarship recipients serve 2 to 4 years in a community-based clinic in a health-professional shortage area (HPSA) approved by the NHSC. Awards are made to the applicants most committed to helping underserved people and most likely to build successful careers in health shortage areas [16].

The NHSC Loan Repayment Program offers fully trained primary care physicians (MD or DO) \$60,000 to repay student loans in exchange for 2 years of full-time medical practice at a HPSA site [17]. After 2 years, program participants may apply for additional years of support—up to \$170,000 of loan repayment is available for 5 years of full-time service. (For interested full-time physicians, up to 8 hours per week can be spent teaching in a clinical setting. There is also a half-time service option that provides employment flexibility [18, 19].) Additional federal opportunities include those sponsored by the U.S. Armed Forces Health Professions Scholarship and Loan Repayment Programs.

State Programs

The practice requirements of the State Loan Repayment Program (SLRP) are modeled after those of the NHSC loan repayment program. Physicians must commit to practice in a public or nonprofit entity for at least 2 years. Each participating state must match the funds received from the SLRP. Several states and state medical associations also offer scholarship and loan-repayment programs for students and residents interested in rural practice.

Many states also participate in the NHSC Student/Resident Experiences and Rotations in Community Health (SEARCH) program, which enables trainees to do clinical rotations in underserved communities across the United States and its territories [20]. HRSA's Bureau of Health Professions provides grant funding to medical schools and residency programs for primary care curriculum development and clinical training in underserved locations, including opportunities in rural areas. Additional federal educational support comes from the Centers for Medicare and Medicaid Services (CMS), which provide graduate medical education payments to residency programs, including family medicine residency rural training tracks [21].

Supplementary Payment Programs

Historically, primary care services have been reimbursed at lower rates than those provided by other specialties. Procedural services are reimbursed at higher levels than are evaluation and management (that is, cognitive or nonprocedural) services. Data from the Medical Group Management Association indicate that from 1995 to 2004, the median income for primary care physicians increased by 21.4 percent, while that for specialists increased by 37.5 percent [22, 23].

There have also been longstanding payment inequities between lower-reimbursed rural practitioners and their urban counterparts. Supplemental payments for clinical

services are therefore available for primary care physicians and for facilities in rural locations. Through the Affordable Care Act's new Medicare Primary Care Incentive Program that began in January 2011, for example, CMS provides Medicare bonus payments to clinicians practicing in geographic primary care health professional shortage areas. Federal cost-based reimbursement arrangements also exist for certain statutorily defined facilities including FQHCs, critical access hospitals, and rural health clinics [24-26].

These strategies help ensure that rural providers and hospitals receive some of the additional payment they need to offer quality care to their patients and to protect access to care in rural communities. HRSA's Office of Rural Health Policy also provides critical access hospitals with grant support to fund quality, operational, and financial improvement initiatives. These initiatives include integrating emergency medical services into regional and local rural care systems.

Conclusion

Rural practice is not easy and it is not for everyone, but it can be fulfilling for those with a sense of adventure, who can deal with uncertainty, and who enjoy the intellectual challenges associated with evaluating undifferentiated clinical presentations. Doctors who enjoy a more independent working environment and small-town living—and who seek to serve and invest deeply in their community—can thrive in rural medical practice.

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MEDICINE AND SOCIETY

Balancing Prestige with Personal Satisfaction and Social Need in Specialty Choice

Kimberly S. Ephgrave, MD

“Basically, no matter what they wrote on their med school applications, people really want to make money.”

“Really? I don’t hear *my* friends talking about money.”

“OK, maybe money isn’t the top priority for everyone, but all of us want other people to be impressed that we’re doctors.”

It was 1977, early in my medical school years. A cynical senior student—my older sister—was responding to my confusion about why several of the top students in her class had chosen specialties like radiology that allowed plenty of access to gizmos but minimal patient contact.

The number of medical students who pursue primary care has long been a concern [1], but the prestigious fields when I was a medical student in the ’70s were internal medicine, general surgery, and orthopedics. Although orthopedics residency programs continue to be highly selective, internal medicine now ranks near the bottom in North America. The next most selective specialties are now all high-tech: otolaryngology, radiation oncology, dermatology, and diagnostic radiology [2]. Paradoxically, these specialties, which allow for undeniably easier lifestyles than internal medicine, family medicine, pediatrics, ob/gyn or general surgery, also pay more than the fields with challenging night call—a combination that can’t help but nudge students’ career choices away from the most needed fields. This current trend in the U.S. is not inevitable or universal: internal medicine and general surgery are still the most selective residency programs in contemporary Australia [3].

During our specialty explorations 35 years ago, students already expected to do residencies rather than go into “general practice.” Family medicine was a new, rapidly growing specialty. Then, as now, populations lacking adequate primary care were abundant. More physicians were needed in both rural and urban communities in every state, while affluent suburban areas were oversupplied with physicians. Then, as now, those whose lives were disorganized by mental illness, poverty, or substance abuse needed ER visits for primary care (as well as for trauma and mental health care). But despite the challenges of hands-on caring, we felt there was prestige in being medical students, period.

After my sister's internship, the Public Health Service sent her to a remote South Dakota town with fewer than 1,000 residents, which was culturally challenging at the time. No one but the lone physician assistant had any education beyond high school. With no Internet, the intellectual stimulation came from the Sunday *New York Times*, delivered by mail approximately a week late. No medical information was available, either, outside the textbooks she had taken with her.

Since my sister's isolated work in the late '70s, the information age has enhanced patient safety and professional satisfaction for physicians in rural practice. Medical information, formal consultations, radiology readings, and informal professional conversation are all easily available online. But the popularity of rural practice has not bounced back, nor has the percentage of medical students pursuing primary care. Students entering medical school with an interest in primary care often change their minds after encountering the myriad specialties and subspecialties with all their bells and whistles, and even schools designed specifically to produce primary care physicians have struggled to fulfill this mission [4].

Why are students in North America abandoning this initial interest? Not only is care of the underserved undeniably challenging—explaining medical conditions and forming therapeutic alliances requires time and deliberate practice even in affluent suburbs where patients are more often culturally similar to medical practitioners—but medical students, like most Americans, tend to be enamored of gadgetry. In medicine, this tendency to believe in the therapeutic power of any new technology over primary care practitioners' expertise has been provocatively dubbed “gizmo idolatry” in *JAMA* [5]. Even outside of medicine, the work of professionals whose “tech” relies on face-to-face communication with others—teachers and religious leaders, for example—is less well rewarded than the high-tech work of professionals like engineers. The intrinsic rewards for the former are great, but salary and prestige do not follow. Within medicine, a pediatrician, family practitioner, or psychiatrist rarely earns as much as a gastroenterologist busy with endoscopies; salary and prestige follow high-tech more than high-touch specialties. Prestige associated with technology is not guaranteed to be permanent, though; even “rocket scientists” note recent decline in their societal status [6]. Recognition of contemporary medicine's “gizmo idolatry” is a first step toward rebalancing prestige in the direction of the primary care physician's true value to society.

For the individual physician, nothing beats the intrinsic rewards of working closely with real patients. I've counseled students who had been advised by their parents not to follow them into high-tech, low-touch fields because they felt like burnt-out, selfish technicians by the end of their first decade in practice. I wouldn't want to be someone who does anything over and over and never learns patients' stories—whether the repetitive practice is endoscopy, cataract removal, or prescribing acne medication. It is easy to be seduced by the admiration of peers at matching into a selective specialty, but maturity and self-respect allow one to see the benefits of serving human need.

A general surgeon myself, I have been embarrassed by colleagues whose enthusiasm for their cool tools or drive to be recognized for developing new procedures seemed to exceed their concern for their patients. But I am more appreciative of technology-enchanted subspecialists now than I was 35 years ago. When I was a student, cholecystectomy meant NG tubes, more than a week of hospital stay, and an incision 8-10 inches long across the upper abdomen. We always placed a messy Penrose drain through an inch-long stab incision, bigger than any of the port sites for current laparoscopic cholecystectomies. Naturally, after that major procedure patients needed months to fully recover. Thanks to other surgeons' drive to play, excel, or innovate, removal of the gallbladder became an outpatient procedure. Similarly, the most common major operation during my med student years was "exploratory laparotomy," always painful and frequently complicated by infections, incisional hernias, and bowel obstructions. Major surgery for diagnosis is now completely obsolete, though, thanks to the people (like my sister's classmates whose interest in radiology baffled me) who developed the ultrasounds, CT scanners, MRIs, and other devices.

That said, while the needs of society are important, medical students are also people with legitimate needs and interests. Resentful, unhappy primary care providers probably do less good for their patients (or friends and family) than happy high-tech radiation oncologists or robotic surgical innovators. The AAMC is probably right to not prescribe fixed percentage targets for each specialty.

So what should a current medical student do? Get to know your own values and priorities. Go into as many different clinical settings as you can with an open mind. We don't always know what kind of medical practice will make us happy, but clerkship experiences can help overcome our preconceptions. Acknowledge the needs of others and geographical, societal, and family obligations. And remember that you are not necessarily locked into a particular place, specialty, or type of practice. Many clinicians change locations or specialties. Others pursue private practice the majority of their time, but make altruism a priority by regularly staffing local free clinics or intermittently working in other underserved areas, whether in this country or elsewhere in the world.

When all is said and done, all medical specialties have enormous prestige in the eyes of nonphysicians, and the vast majority of physicians in the United States earn plenty of money. There is definitely no one "right answer" for your specialty choice—most of us could be happy in a wide variety of specialties.

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MEDICAL NARRATIVE

Mumbai to Detroit to Huntington, West Virginia—A Foreign Medical Graduate in Rural America

Kalpana Miriyala, MD

After graduating in 2000 from Seth Gordhandas Sunderdas Medical College, in Mumbai, India, I went on to complete a psychiatry residency in that city. After my marriage, I came to the U.S., completed the USMLE, and matched to a residency program in Kansas City. Thereafter, I moved to Detroit to finish my general psychiatry residency training and completed a child psychiatry fellowship at University of Michigan.

When I accepted a residency on a J-1 visa, I knew that someday I would be working in a rural community, but it seemed pretty far away at that time. There were several positions available across the country that offered the required waiver to international medical graduates (IMGs) on this particular visa so they could work and remain in the U.S. I met IMG physicians at every place I interviewed.

I accepted a position in a community mental health clinic in Huntington, West Virginia. Huntington, the second largest city in the state, is located along the Ohio river. People of Caucasian descent make up nearly 90 percent of Huntington's population of 50,000. The city is part of a larger tri-state area, with several smaller towns on either side of its borders with Ohio and Kentucky. Once a week, I travel about 20 miles to a satellite clinic in another county, which has a population of 22,000, 99 percent of whom are white. My first trip to the clinic was quite unnerving; the hairpin bends and steep uphill climbs made me carsick. Since it was unfamiliar to me, I had carried my GPS, but there was no satellite signal for either the GPS or my cell phone for most of the trip. To this day, I still call my husband every Thursday morning to let him know I have reached the clinic safely.

During the interview phase, I heard about the Tri-State India Association, and I managed to get in touch with its president. From speaking with her, I found out there were about a 100-150 families in the area of Indian origin, and that the association had monthly get-togethers. With a 3-year-old daughter, it was important for us to be able to interact with other families of Indian origin to maintain the cultural connection and feel part of a community. This was a big consideration in our decision making.

When I lived in Detroit, I had a variety of options: I could pick the kind of Hindu temple I felt like visiting on a particular occasion, the type of regional Indian cuisine

I felt like on a particular day, the kind of Indian store I wanted to shop at, and the Indian-language film I wanted to watch on the big screen.

Huntington was different; there was one Indian restaurant, the nearest Indian store was an hour away, the Hindu temple was 2 hours away, and the nearest place to watch an Indian movie on the big screen, at least 3 hours away. The first time I went to the local Wal-Mart, I was convinced everyone was staring at me. I remember being startled by the feeling, because, in the 7 years I had resided in the U.S., this was the first time I had ever felt like an immigrant. The feeling gradually dissipated over the next few months. The other struggle we faced was my husband's finding a job. He had left his job as a professor in pediatric dentistry and outreach coordinator at the university in Detroit, so we could all be together. Due to his immigration status, he had to be employed and could not start his own practice. Even though there was a desperate need for pediatric dentists in the area, he faced resistance, partly due to being unknown in the community and partly due to the community's reluctance to get involved in the unfamiliar immigration process. It took more than a year for him to get started in the community. We came to realize how hard it could be to find two careers in a small city.

Throughout residency, one always hears the adage "Residency does not truly prepare you for real-life practice." How true it is! Though my residency and fellowship training gave me a great foundation and honed my professional skills, I was in no way prepared for what was in store for me. I took a job as a staff child psychiatrist at Pretera Center for Mental Health Services, Inc., working 40 hours a week in a clinic whose patients were mostly uninsured and underinsured. Our health center provides mental health and addiction services in eight counties in the southwestern part of the state, including crisis units, short-term and long-term residential addiction centers, and outreach services to the homeless. We also have in-home therapy, respite and day-treatment programs, and school-based services for children and families. I was very fortunate to have another child psychiatrist at the same office; she has been a valuable mentor who has helped me navigate the systems of care in the state and region.

Given the setting I was working in, I anticipated what I imagined to be the worst, but the extent of psychopathology I came across far exceeded those expectations: parents with severe mental illnesses, physical abuse, sexual abuse, incest, neglect, trauma, illegal drug use, violence, crime, illiteracy, misuse of social security, even parents' stealing and selling their children's medications. Few families were able to provide the nurturing and care that children need; they were living from moment to moment, surviving one day at a time, not knowing what would happen in their lives the next day. I often had trouble managing my reactions to some of the stories I heard. It helped to have other people to work with, to vent and exchange ideas. I came to terms with the fact that I could only help my patients to the extent that they would allow me and with the limited resources I had. I often talked to colleagues who had accepted similar jobs in other parts of the country and was somewhat relieved to find that I was not alone in this.

In a community the size of Huntington, maintaining confidentiality is often an issue. While it is fairly common to have siblings as patients, I had several patients from the same class or school. Kids have run up to me in a grocery store, to greet me as their doctor. Sometimes, they ask me about their friends who also see me. Some of the teenagers I see end up dating each other. Each of these situations raises concerns of confidentiality one is less likely to find in large urban settings.

It was gratifying to me though, that I immediately felt accepted by my patients as their doctor. Looking back in their charts, I discovered that many of them had previously had IMGs as their psychiatrists, so it was something they were already used to. The parents were genuinely grateful to have someone who would take care of their children. My family and I were accepted by the Indian community with open arms. People often checked in on us and supported us through difficult times. We are often asked if we plan to stay here. If we move, it will be for better career opportunities or for our daughter, who we would like to experience greater exposure to our culture. Besides the convenience and the cost of living in a small town, the attachments we have formed here in the short period are starting to grow on us.

For now this is home.

Kalpana Miriyala, MD, is a child and adolescent psychiatrist who has been practicing at Pretera Center for Mental Health Services, Inc., in Huntington, West Virginia, since 2009. She provides medication management for children with a variety of mental health and substance abuse problems. Dr. Miriyala volunteers on an advisory council to the Educational Commission of Foreign Medical Graduates (ECFMG) Acculturation Program.

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OP-ED

A Case for Special Programs to Expand the Ranks of Rural Physicians

Doug Campos-Outcalt, MD, MPA

Geographic and specialty maldistribution of physicians continues to plague the United States health care system. Twenty-one percent of the American population lives in a rural area; 30 million people live in federally designated health professional shortage areas [1, 2]. Yet only 10 to 11 percent of physicians who graduated from medical school in the 1980s and '90s practice in rural America, and recent graduates appear to be following suit [3, 4]. On top of the fact that the ratio of physicians to patients is low in rural areas, rural Americans need more health care than their nonrural counterparts because they tend to be poorer and are more likely to be chronically ill [5].

A small minority of U.S. medical schools produce a large proportion of the physicians who practice in rural areas [3, 4]. While it has been demonstrated that medical schools can increase the number of their graduates who become rural physicians through an admissions process that seeks students from rural backgrounds and a curriculum that reinforces this career goal, few do so [6]. Rabinowitz and colleagues have pointed out that if every medical school developed such programs and graduated 10 students per year who entered into rural practice, we could more than double the number of rural physicians entering the workforce each year, which would have a significant impact over time on the rural physician shortage [6].

There are several reasons why U.S. medical schools in this country should be held responsible for addressing this. The public pays for a large proportion of the costs of medical education through state subsidies to medical schools, NIH research support, publicly funded insurance programs (Medicaid and Medicare), and Medicare graduate medical education funding. The public has the right to expect that these funds should be used to benefit all who contribute to them, including rural residents. The ethical principles of fairness, distributive justice, and beneficence all support working to ensure equitable access to health care. Modern educational institutions should be addressing and solving modern-day problems, and a shortage of rural physicians is one of the most pressing problems of our times. In short, it is the right thing to do.

Those who favor the status quo might make four arguments against rural medicine educational initiatives: (1) the costs of such programs; (2) the multifactorial nature of geographic practice choices; (3) the need to choose the best medical school candidates regardless of their career plans; and (4) the competing academic missions

of research and clinical care. But none of these concerns should prevent academic institutions from taking steps to address rural workforce issues.

No extra funds are needed at all to change admissions criteria. This requires leadership, not money. Rural medicine educational initiatives do require some additional resources, but the burden would be small in the overall scheme of the modern academic medical center. Interested and creative faculty can design and operate programs and seek funds from a variety of sources such as specially earmarked state funds, federal and foundational grants, and Area Health Education Centers. Faculty that have the support of their leadership will succeed.

Granted, many variables affect a physician's decision about where to practice. Solving this problem is not solely the responsibility of academic institutions. The state and federal governments also need to address it by creating incentives, and eliminating disincentives, for careers in rural medicine. Everyone needs to ante up.

The admissions concern is based on the assumption that the criteria we currently use for admission to medical school select the applicants most qualified to be good doctors. This assumption has been widely challenged [7] and most who have studied the issue admit that the academic criteria on which we base admissions decisions (MCAT scores and grade point averages) do little more than predict how a student will fare in the basic science years and on part 1 of the USMLE. Though they reflect education and economic advantages, these academic criteria have never been shown to predict long-term physician performance [7]. Most schools already consider nonacademic factors such as past volunteer work, educational disadvantages, and personal traits. The integrity of the admissions process will not be affected in any significant way by considering a candidate's likelihood of practicing in rural or other underserved areas. There is good evidence that students admitted through rural initiatives perform as well as other students on measures commonly used to assess academic achievement [8-10].

Finally, educational initiatives to increase the number of graduates who become rural physicians do not undermine or compete with other priorities at an academic medical center. Some of the most successful rural programs exist at distinguished medical schools known for their research and quality patient care [10-12]. Medical schools can and should address the shortage of rural physicians in this country. We know how to do it. It is not a matter of ability or resources. It is a matter of leadership and will.

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