Overcoming the Shortage of Rural, Primary Care Physicians

An Honors Thesis (HONRS 499)

by

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ABSTRACT

This paper examines ways in which more medical students can be attracted to careers in primary care in rural areas. Interviews were conducted with medical students and physicians in order to ascertain their reasons for deciding to go into their respective specialties and locations. The interviewees also revealed the positive and negative results of their decisions. This paper also discusses programs which have capitalized on the positive aspects and sought to overcome the negative aspects of primary care and rural medicine in order to persuade students and physicians to pursue those types of careers.
INTRODUCTION

The small town of Knightstown, Indiana has approximately 2500 residents, three stop lights, ten restaurants, three grocery stores, and seven churches. However, like many other small towns in the United States, one thing it does not have is a doctor. Even our popular culture is reflecting this shortage of rural physicians. CBS currently has a successful program entitled "Northern Exposure," in which the residents of a small, isolated town in Alaska pay for part of a student's medical education under the condition that he will practice in their town for a specified amount of time. Doc Hollywood is a feature length film, in which a hopeful plastic surgeon gets lost in South Carolina on his way to Los Angeles. The members of the town practically kidnap him. They try to convince him to stay and become their doctor because the local physician is ready to retire.

Interest in primary care careers has dwindled significantly in recent years, and the shortage is felt strongly in rural areas. For example, from 1981 to 1989, 50% fewer students expressed interest in general internal medicine; over 3% fewer students planned to go into family medicine; and over 2% fewer students wanted to practice general pediatrics. Similarly, the number of students who were matched to residencies in family practice declined by almost 15% from 1984 to 1990 (Politzer et al. 1991).

Politzer (et al. 1991) report that in the early 1980's almost 40% of graduating seniors chose primary care specialties as careers. By 1989, that figure had diminished by 25%. Instead, students are attracted to the more prestigious urban-based subspecialties which are highly technical and provide greater earning potential. According to Murray, Wartman, and Swanson (1992):

The prestige accorded the very highly specialized faculty members of most clinical departments, and the disdain that is often expressed by them about the limited talents of generalists, are observed by almost all students at some point in their education.
As a result of these biases, 49 (89%) of the 55 states, commonwealths, and territories which report to the Department of Health and Human Services claim to have a shortage of primary care physicians, and 45 (82%) of them have pinpointed rural areas as lacking primary care physicians (Politzer et al. 1991).

The purpose of this paper is to examine ways in which more medical students can be attracted to careers in primary care (family practice, general pediatrics, and general internal medicine) in rural areas (population of less than ten thousand). Interviews were conducted with medical students and physicians in order to ascertain their reasons for deciding to go into their respective specialties and locations. The interviewees also revealed the positive and negative results of their decisions. This paper also discusses programs which have capitalized on the positive aspects and sought to overcome the negative aspects of primary care and rural medicine in order to persuade students and physicians to pursue those types of careers.

INTERVIEWS

The author of this paper interviewed two medical students, two rural family practitioners, and two urban specialists. The following questions were designed to get each of the interviewees to disclose his personal decision-making process, and (in the case of the practicing physicians) the satisfactions and regrets which have resulted from those decisions:

1. When did you decide to specialize in this area?
2. Why did you choose this specialty over primary care (or vice versa)?
3. Why did you choose to practice in a city as opposed to a small town or rural community (or vice versa)?
4. Describe your greatest joys or satisfactions as well as your biggest regrets (which have resulted from these decisions) in the following areas:
   a) Your profession
   b) Your family life
   c) Your personal life
5. Do you feel that you have missed out on anything as a result of your career choices and/or location?

The medical students were asked to speculate on their future satisfactions and regrets. The real names of the participants are not used in this report in order to protect their privacy. The following section provides profiles of each of the interviewees and selected verbatim accounts of their comments.

**STUDENTS**

**Pete.** Pete is a second year medical student at Indiana University. He has not yet decided if he is going to specialize or pursue a career in primary care. However, he does seem to be leaning toward family practice because he has worked with a family practitioner, and he enjoyed that experience. Nevertheless, he is keeping his options open because he has not yet spent time in hospitals with other specialists.

Pete stated that in past years, the IU School of Medicine tended not to encourage students to go into family practice. However, IU has emphasized the shortage of family practitioners to his class and to the first year students; and IU is now encouraging its students to go into primary care. Pete also mentioned the opportunities offered to students through the Public Health Service to go to underserved areas such as Alaska, Indian reservations, and inner cities in order to gain experience in primary care.

If Pete decides to go into family practice, he foresees his greatest satisfaction to be:

- the opportunity to have an impact on people’s lives, and to actually develop relationships with people...and to change their lives for the better.

As a specialist, Pete’s greatest satisfaction would be knowing that he could "perform a skill that not everyone can do, and that if you hadn’t performed that skill, that patient might have died."
On the negative side, Pete said that the biggest sacrifice that he foresees as a family practitioner would be the amount of time that he would have to devote to his practice. He also stated that as a family doctor, he "would be giving up some respect of other people in medicine... and definitely income."

As a specialist, Pete said that he may "be giving up the chance to develop relationships with his patients... and the opportunity to practice medicine where you have to use your head a lot." He also feared growing tired of doing the same thing all of the time, and he mentioned the many years of training that it takes to become highly specialized. During those years, Pete claims that "you basically give up your life."

Pete does want to have a family someday, but he does not know if going into primary care or another specialty would make that much difference in his family life. Whatever he chooses, he plans to budget his time so that he will be able to be with his family often. In his personal life, Pete predicts that he will get satisfaction from "living the life that God wants me to live... and I think that involves medicine."

Pete has also considered practicing medicine in a small town -- particularly the small town where he was raised because no doctor practices there. Pete believes that in a smaller community, family doctors would have an opportunity to do more things medically because they have less competition from specialists. He also likes the romantic idea of being like "an old-fashioned doctor who does it all."

Practicing in a small town would have its disadvantages, too. Some drawbacks that Pete mentioned were the larger time commitment required of the sole physician in a small community and the lack of a nearby hospital. Practicing in the city, on the other hand, would provide a larger patient population, better facilities, and many other medical professionals to call on if
something drastic were to go wrong with a patient. Nevertheless, since he is from a small town, Pete is "not so fond of city life."

Overall, Pete does predict a trend toward medical schools' encouraging students to go into family medicine and to practice in underserved areas. For many of Pete's classmates, "family medicine is at least a definite possibility." In fact, Pete knows that many of his classmates who originally wanted to go into a subspecialty are now considering primary care.

Bob. The second medical student interviewed was Bob, who is in his third year at Indiana University. Bob is planning to go into orthopedics. He has a cousin who is an orthopedic surgeon, so he has been exposed to that field and has been able to observe surgeries. Bob is also fond of sports, and orthopedic surgeons work with a lot of athletes. He has always wanted to go into some type of surgery, and he finds orthopedics very attractive because most "emergencies" can be put off to the next day, whereas general surgeons may be called to emergency surgery at any time.

Bob has never really considered going into primary care, but he did complete the mandatory month of rotation with a family practitioner. During that month, he found that:

there's a lot of psychology in primary care, especially family practice, and a lot of what you do does not really relate to medicine. . . you have to really get in and become friendly with these people and you do a lot of things that are good for the patient, but aren't really related to medicine.

Although Bob believes that family practice is important, he is not interested in pursuing a career in that field. Instead, Bob is attracted to the "science of medicine," and he would eventually like to go into academic medicine in order to do research.

Since orthopedics requires a relatively large patient population, Bob plans to practice "in at least a medium sized community;" but he does not have
any definite plans on exactly where he will practice. When asked about practicing in a small community, Bob stated, "My moving into a small town would not benefit the community, and it would not benefit me."

If Bob does go into academic medicine, he foresees his greatest satisfaction to be actually doing research. As an orthopedic surgeon, Bob will get satisfaction from helping patients of all ages and "improving their quality of life without prolonging their life unnecessarily."

One of the drawbacks of specializing, according to Bob, is that he is attracted to many different aspects of medicine, and going into a subspecialty will "narrow the field down of what you see. . . you're limited in what you can do."

The benefits for his family will be that he will have a good job that will not interfere with his family life too much. Bob also stated that as an orthopedic surgeon, "you're able to control your hours a little better, and you can take a vacation without having to worry about one of your patients dying." He also mentioned the financial security that accompanies a career in this field. One of the disadvantages for his family will be the long hours that he will have to spend at the hospital during his five-year residency.

Bob will get a lot of personal satisfaction out of specializing in orthopedics because:

- orthopedics is very competitive, and just getting in is sort of an honor to me. . . there is a lot of prestige that goes along with getting into something like that. There are certain specialties that are harder to get into, and if you get in, then people sort of look up to you.

If Bob goes into research he "would like to be the first person to do something."

Bob explained that he has spent most of his life in school because he received his master's degree in biology before entering medical school. He does seem to have some regrets about spending so much time in school because:
I will be thirty-five before I ever have a job. I still rely on my parents' support, and I borrow money from my grandparents. I have friends who own their own houses now, so that's a drawback... This has been the most difficult time of my life, and if people gripe about my making money when I get out, I am going to be very defensive.

As an orthopedic surgeon, Bob also thinks that he will miss the "continuity of care" with patients because most patients will only require his services for a short time.

When asked if IU encourages students to go into primary care, Bob stated that they are strongly urging students to go into family practice. "We need family doctors, and IU as a school pushes for family doctors. That's why we have to do a month of family practice." Bob believes that students choose to go into certain specialties because of the lifestyles associated with them. According to Bob, medical schools have to encourage students to go in family practice because they are not automatically attracted to it. "It just doesn't sound as exciting as some of the other specialties, and the money hasn't been there."

However, Bob did say that many students think that family practitioners have a good lifestyle which is "more family oriented." According to Bob, each family doctor also has the freedom to tailor his or her practice to what interests him or her, by including or excluding pediatrics, geriatrics, obstetrics, etc.

**URBAN SPECIALISTS**

**Dr. Franklin.** Dr. Franklin is a pediatric surgeon at Riley Hospital. During his fourth year of medical school, he still was not sure if he wanted to go into primary care or surgery. Therefore, he applied to residencies in internal medicine, family practice, and general surgery. He finally decided to do his residency in general surgery, thinking that he could always change
his mind and do something else if he did not like it. During his first year of residency, he found that he loved surgery; and in his fourth year of residency, Dr. Franklin decided to subspecialize in pediatric surgery.

I wanted to be a surgeon. I wanted to operate, and in family practice, I didn't think that I would be able to do that type of stuff. It would be a lot more of an office-based practice, seeing patients in the clinics, studying all the time. . . . I just thought my interests were in operating, doing surgery -- sort of a hands-on type deal.

When he was planning to go into general surgery, he wanted to practice in a smaller town. However, as a pediatric surgeon, he needs to practice in a large city with a large hospital in order to have enough patients to keep him busy. Only five pediatric surgeons practice in Indiana -- four at Riley and one at Methodist.

He seems to be very happy with his decision to subspecialize:

The pros of my profession are that it's in some ways a highly technical field. You're dealing with complex anomalies sometimes. . . . that are just fun to deal with. They're challenging. They don't always have a good outcome. The other pros are dealing with the children -- that's probably one of the biggest joys. . . . You operate on them as a newborn baby, and most of the children end up making it. . . . It's tremendously gratifying to see them as they grow older. . . . It's gratifying to see that kid just being a normal little baby and continuing to grow.

Dr. Franklin says that he has no regrets professionally. However, he sometimes wishes that he could be involved in an even more technical field, such as cardiovascular surgery. Nevertheless, he feels that pediatric surgery enables him to lead a balanced life.

Being a subspecialist has affected his family in that he has to put in a lot of hours, but he thinks his family has benefited because he enjoys his work. "I don't come home very discouraged very often. . . . Even if it's been a bad day, things have usually cooled down by the time I go home." Dr. Franklin and his family live in a suburb of Indianapolis, and they are very happy with their location. They enjoy having access to the city and what is has to of-
fer. However, he believes that his family would be happy living in a small
town as well.

Dr. Franklin had a difficult time separating his personal life from his
family life, but he did have this to say about personal satisfaction:

For my own personal life, my job would probably be number three on
the list; my family would be two; and my relationship with God
would probably be number one.

I love what I'm doing... but if you start to think too much
about what you are doing in medicine as opposed to what you are
doing for the people, it's very easy to keep letting it
magnify... the families are very happy and they pour praise on
you, and it tends to build you up in your own eyes, and that's
really not a good thing for you I don't think.

In the end result, you aren't the one that really heals them. You
put things back together, but you are not the power or force that
heals. It's external to us, yet we take credit for it all -- be­
cause the parents just see this final result, and it's great, and
they say "Oh, you did it!" In fact, you only did a small thing,
and it's very fortunate that the child was healed.

You get enough gratification from your families and it's hard
enough just to kind of suppress it and get it out of the way.

Dr. Franklin points out how easy it is for physicians to become arrogant. How­
ever, something can always go wrong; and it makes it much more difficult for
physicians to cope with it when they think that they are infallible. To avoid
those types of problems, Dr. Franklin prefers to remain humble.

I think a lot of physicians can get their priorities so messed up.
They elevate themselves above their families, above God, and they
are kind of a god to themselves. They're kind of sitting up in
their little tower being so wonderful. Then their family suffers,
too.

The one regret that Dr. Franklin has in his personal life is that he had to
spend so many years in training, during which his average work week was one
hundred hours long. His first child was born during his seventh year of resi­
dency, and he felt torn between his work and his family.

Dr. Franklin would like to be able to do more outdoor activities that
rural areas might provide, but he seems happy in Indianapolis. Although he is
sure that he has missed certain experiences professionally, he has no regrets because he loves his job.

I have elected to give up a lot of things so that I can concentrate on just the children. Once they come out of their mother, I can concentrate on their care until they are about eighteen years of age. . . . in terms of surgical problems.

Dr. Franklin also serves on the admissions committee for the IU School of Medicine, and he noted the emphasis that IU is placing on primary care. However, he has some personal reservations:

Personally, I'm not sure that's the right thing for the country. I think the better thing for the country is to let the physicians do what they want to do, and move the patients. I think access to medical care is probably better than people think it is. . . . The key is a good referral pattern among physicians.

Dr. King. Dr. King is a pediatric urologist at Riley Hospital, and a teacher at the IU School of Medicine. Dr. King originally planned to become a family practitioner in a small town in Ohio, but when he spent a day there with his potential partner, he did not feel comfortable.

I thought that it was a little bit of a problem trying to do everything, and not doing everything in depth. Trying to cover all the bases as a family practitioner is very, very hard. Plus, it wasn't quite exciting enough for me. . . . That kind of small-town life didn't appeal to me.

Dr. King is one of approximately one hundred surgeons in the U.S. who specialize in pediatric urology. He spent seven years in residency training to become certified in this field of medicine. He was attracted to this subspecialty for several reasons:

What happens in medicine is that the knowledge is becoming so diverse that's hard to stay on top of everything in general practice. And so, for professional satisfaction, . . . it's easier to tackle one branch of medicine and really be good at it. . . . than it is to be Mr. General Surgeon.

There are so many doctors now that in order to attract patients, you have to have a niche -- something that you're especially good at.
In urology, it seemed like the physicians were having a pretty good time. They were respected. They were making a reasonable living. I figured if I was going to spend six or seven years of my life training with some people, I had better do it with somebody I was going to have a good time with.

As an academic advisor, Dr. King has some insight as to why students choose certain specialties over others:

Students find out who's making what, and who is happy in whatever lifestyle. They know that family practice doesn't pay. They know that pediatrics doesn't pay. They know these things -- they're not stupid.

They look at lifestyles, and they look at reimbursement. I used to think that was wrong, but now I don't think that's unreasonable. Students give so much to get to that point... I don't blame people for picking practices for other reasons than for idealistic, "I'm going to help mankind," type of things. We do that anyway.

Dr. King explained that in order to be successful in pediatric urology, one must practice in a hospital, such as Riley, which has the facilities to deal specifically with children. For example, they have the proper anesthesia to use on pediatric patients. A pediatric urologist also needs a large patient population. "It's been shown that I probably need about a million people (in the patient population) to do the kind of medicine that I do."

Dr. King has practiced on the east coast, and he finds that people in Indiana appreciate him more. He also enjoys practicing at Riley because it has such a good reputation among children's hospitals, and it is the only hospital exclusively for children in Indiana. Among his satisfactions in his profession, Dr. King mentioned the joys of taking care of children and comforting the parents. The following areas also provide him with professional satisfaction:

It's very rewarding to get letters from people who think you're the best thing since Swiss cheese. We all like that kind of feedback... I give pretty good care... but it's not really common for people to thank you. I think doctors are really taken for granted.
My little specialty in urology is really fascinating. The kids are great to work with. The surgery is really creative... I think I'm making a difference for people.

On the other hand, Dr. King does have some regrets about subspecializing:

I do miss doing adult urology. I miss doing other kinds of medicine that I know I can do -- maybe as well as the guys who are doing it full time.

Dr. King devotes a lot of time to his career, and he wishes that he had more time to spend with his family.

Academic medicine is definitely a negative aspect. Surgery is a negative aspect. Surgeons are driven people. I work very long hours... In addition to taking care of a zillion patients and operating four days a week, I am expected to write papers, to write chapters for books, to give lectures, to direct students, to teach residents... I keep myself accessible -- that's old fashion in medicine in 1992.

When I'm at home, I'm with them... If I do something, I take my kids... When I'm with my kids, I try to make it pretty quality time.

He feels that he needs to be available to his patients as much as possible:

If you're a patient, and you've got a problem; and Dr. Smith is a "forty-hour week" guy, if you call after the forty hours, you get Dr. Jones... There's not that continuity and personal bonding that there used to be in medicine. We (King and his partners) haven't done that, but we may have to do that to keep our sanity.

Dr. King lives in a small community outside of Indianapolis, so he has the smaller town atmosphere while retaining access to the city. He has lived in Philadelphia and Boston, and he says that Indianapolis is a much better place to raise his three small children. Practicing in Indianapolis has other advantages as well:

Right now, I'm in a place where I am the only show in town. I have access to about five million people and their kids, and, if I do a good job, maybe more. I am associated with a highly regarded program.

This hard-working young physician often wonders if he would be happier doing something else with his life:

You set a goal, and you get there, and you sit back and say, "Gee, I did this," but there are more mountains to climb. Or you look
back and think, "God, I gave medicine the ten best years of my life. Am I really that happy with all this? I make a good living, but is it worth it?" Those are hard questions, and we all ask them all the time.

The guy that was in my job before me had a heart attack when he was forty. There have been other pediatric urologists who have died at young ages. I want to live to be eighty, and I want to retire when I'm sixty-five and still going good. I want to have a few years to rest back, and hopefully I'll think it's all been worth it, but sometimes I seriously doubt it.

When asked if he feels like he has missed out on anything, Dr. King replied:

If you think that you have a lot of ability, you always wonder. Absolutely...I could have been an architect, and I wonder if I would have been a good one...I see guys who seem to be doing something they always like, and I'll tell you I'm doing a lot of stuff that I don't always like.

Nonetheless, Dr. King justifies his career choices in this way:

I think that the good Lord, or whoever that is, puts everybody on earth with certain talents, and there's nothing sadder than the guy who gets to the end of his string and hasn't given his best shot at whatever he's good at. I've been blessed with the ability to do certain things...I don't want to be one of those guys who is sad when he is dying that he didn't fulfill his ability.

RURAL FAMILY PRACTITIONERS

Dr. White. Dr. White is the only physician in a town with a population of approximately 2000 people. He decided to go into primary care while he was in medical school because:

There was not one particular area that I really, really, liked; but I liked them all. There weren't any areas I really hated, either. So this gave me a chance to do a little of everything.

Dr. White returned to the town where he had grown up in order to practice with his father, who has been a family doctor in that same small town for forty-six years and has "loved every minute of it." Dr. White does not regret practicing in a rural community:

I enjoy the small-town atmosphere. In a smaller town, you're not just another doctor that's around. I mean you're the only doctor in town. Everybody knows you, and it's more like a family than it is a practice. You know the people personally; you know their kids; you know everybody.
Dr. White seems to enjoy his work very much, and one of his favorite aspects of family medicine is obstetrics:

The biggest joy I see is, number one, delivering babies. That’s fun. Watching the babies grow up. You’re taking care of mom; you’re taking care of dad; you get to see the interaction of the whole family -- and the whole being. You’re not just taking care of their heart or taking care of their liver -- you’re taking care of the whole person.

Dr. White stresses the importance of overseeing the overall health of his patients and the personal relationships that he develops with the families:

... we are becoming so super specialized that many times when people go into the hospital, they have a heart doctor and a liver doctor and a brain doctor, and nobody is orchestrating the whole thing. Nobody’s talking to the family and telling them what is going on.

A lot of times, you’ll have these specialists on the case, but the family wants to talk to you. You’re the one they know; you’re the one they trust; you’re the one who actually sits down and talks to them. You get a lot of satisfaction from doing that.

The biggest joy is you like what you’re doing. I mean this is fun; it’s challenging; you get to meet people every day...it doesn’t really seem like work. It’s more fun than anything else.

When asked if he had any regrets about choosing family practice, Dr. White responded with one word -- "time." "It’s incredibly busy, and you don’t get the time with your family that you would like. There are times that you miss things that your kids are in, and you’re not home at night."

He also pointed out that he does not make as much money as many subspecialists:

One of my pet peeves is the salary differences. I don’t think I’m underpaid, but I feel that there are a lot of people who are overpaid. For the training that they have, they should not be making nearly the amount of money that they make. Sometimes that kind of gets to me.

Dr. White then made a very interesting analogy:

Everybody’s knowledge is a rectangle, and the specialists’ rectangles are turned on end. Family practice, you just take the rectangle and turn it sideways. It’s not that we know less, it’s..."
that we know a little bit about lots of things. They know a lot
about one thing.

Since his career takes up so much of his time, Dr. White admits that his
family life suffers. His wife is especially affected by his enormous time
commitments. "We got married when we were in college, and if we had it to do
over again, she would not have chosen medicine as my field. . . .I bet I eat
dinner with my kids one or two nights a week."

However, Dr. White did not really complain about actually working so
much: "It's fun, and I enjoy what I'm doing. Consequently, the hours just
fly by, and it doesn't seem like you're working all those hours. . . . A four-
teen hour day is really common."

He also enjoys working in a small community. "You're well respected in
your community, and most of the people in the area know who you are -- that's
a positive. You go to a school function, and you see a third of your patients
there." However, that is not always a positive aspect of small-town life:

. . . we're out to dinner, and you run into patients. They come
up, and you get asked a bunch of medical questions. . . . that tends
to bug my wife. She is the one who gets inconvenienced every time
something happens. She's the one who gets left at parties, and
gets left for dinner, or we miss something. . . . it disrupts your
family life.

When I asked Dr. White if he had any regrets as a result of being
a small-town family practitioner, he immediately said "no, none." Then he
thought about it for awhile and said:

The only time I ever have a regret is when one of my specialist
colleagues builds a huge house, and I'm still driving a Chevette.
I think, "that's really not fair." There are people here in Mun-
cie making, conservatively, four to five times what I'm making a
year, and the one I'm thinking of only has one extra year of
training. . . . and I'm paid pretty well.

He also pointed out some disadvantages to being the only doctor for sev-
eral miles:

The other things that you get into with rural areas are call cov-
erage and time off. Sometimes when I'm gone, my patients will
have to drive forty miles to see the physician who is covering for me... Sometimes it does get difficult when you never get any time off -- when you never get a weekend off.

Despite these few regrets, Dr. White still defends his decision to go into primary care:

I think it would be very monotonous if you were a surgeon, and you were doing your four hundredth gall bladder. Each time you have to open the skin the exact same way; you have to close the skin the exact same way; you take the gall bladder out the exact same way. If I had to do five of those in the morning, I'd probably be sleeping by the third one. In family practice, I walk through this door, and it's a mom; I walk through that door, it's an older gentleman with a lung infection; I walk through this door, and this guy could be having a heart attack... It just changes. There's lots of variety -- it's never the same thing twice.

While he does acknowledge somewhat of a hierarchy in the medical community, Dr. White believes that good family practitioners are still respected physicians:

A guy who was in my medical school class... his wife was pregnant, and somebody said, "Well, who are you going to?" He said he was going to an obstetrician, and I said, "Well, did you ever consider a family physician?" He said, "Are you kidding? I wouldn't let them deliver any of my kids." That was before we got through medical school, and that particular person was already very biased.

I think most of your medical colleagues will give you the respect that you earn. If you go out and prove that you're doing a good job, I think you will get the respect of the community, and you'll get the respect of the doctors.

Dr. Allen. Dr. Allen is the other family doctor to take part in this study, and he is the only doctor in his township. He had an idea that he wanted to go into family practice before he went to medical school, and he confirmed that decision as a medical student.

I liked everything, and I thought I would be bored specializing, doing just one thing all the time. For example, when I would be on internal medicine, I would like that and say "Well, maybe I'll do internal medicine." Then during OB, I'd say, "Gee, this is fun. Maybe, I'll do this." Same during pediatrics and dermatology. When you start thinking about it, you can do a little of all of that in family practice -- so I did.
Like Dr. White, Dr. Allen is from a small community, and that played a role in his decision to practice in a rural area:

I'm from a small town... and it just so happened that the director of our training program quit practice right at the same time that I was starting, and he offered to sell it to me, so I bought it.

Unlike many rural physicians, Dr. Allen does not have a problem with call coverage. When he wants to go on vacation, he asks a resident to take care of his patients while he is gone. He also trades calls with two other doctors in the area; however, problems still exist:

You're just tied down. It makes it very difficult to go anywhere. You feel guilty about deserting your patients, even though there is someone always covering for you. Pregnant women don't always like other doctors' delivering their babies after they've seen you for nine months.

Dr. Allen also sees both the positive and negative aspects of being the only primary care physician in a small community:

Patients usually like you, and you get close to the patients, and you know the patients. Probably the biggest joy is delivering babies. That's fun if nothing goes wrong.

The biggest drawback would have to be that you're tied down. You can't go home. You don't get a lot of time at home... the biggest regret would just be simply lack of time.

Then, of course, there is the gossip that is inherent in small communities:

Everyone knows everything that happens, but that doesn't bother me much. I was sick -- actually I had a curable type of cancer in '88. Rumors were that I was dead. I was dead even while I was here seeing patients. I'm going to take a vacation this week, I'll be dead before I get back.

Some of the disadvantages that normally accompany rural practice do not seem to be a problem for Dr. Allen:

The biggest drawback normally would be being unable to handle certain problems in your community. Fortunately, we are very near Muncie, which has lots of specialists, and we can handle almost anything there. I like being in a small town.
He did, however, mention some problems that stem from doing obstetrics in a small town. Travel time to the hospital is definitely an inconvenience. He can lose an entire day in his office to deliver a baby:

If I were located two blocks from the hospital, I could wait until they start to push. They could call me, and I could zip over there and deliver the baby, and zip back. When it's a twenty minute commute, you don't have that luxury.

Nonetheless, Dr. Allen does not plan to abandon obstetrics:

I enjoy it, and it keeps your practice young. In family practice, if you deliver babies, most of the people will have you take care of the baby, so you get a new patient. . . . It keeps it young and interesting and fresh.

Overall, Dr. Allen seems to enjoy small-town life:

I like living in a small town. We live out in the country, and I think it's a nice place to raise a family -- much nicer than an urban area.

I can't think of a big drawback to living out in the country. I wouldn't live in a big city. I guess you have the drawback of no opera. . . . but I don't really care about the opera.

I like to fish. If I lived in a big city, I would be limited physically because there would be no place to fish. Here, I have lots of places where I can go fishing, so that's a big plus. On the minus side, I don't have time to go.

Practicing in a small town also has professional advantages:

You're your own boss. . . . you get a lot of positive feedback from your patients.

Less turnover. People aren't going to switch doctors at the drop of a hat. For one thing, they can't get another doctor. There is much less competition. There's no competition.

Like Dr. White, Dr. Allen is also frustrated with the difference in pay between primary care physicians and subspecialists:

The thing that I never looked at during my entire training period was the financial end of it. Family practice is on the lowest end of the pay scale, and you put in probably the most hours. . . . Ophthalmologists probably make thirty times as much as we do.

We're a little underpaid, and they're a lot overpaid. . . . but I don't regret doing primary care because it's fun.
I have patients who make close to what I do who are factory workers. Now, they may be fairly advanced up on the ladder, but still, I mean, no college, no med school, no residency. They are going to have to pay (family practitioners) fairly well, or no one will do it. They recognize this -- at least they are starting to recognize this.

Dr. Allen also teaches residents at Ball Memorial Hospital, and he had this to say about medical students:

The people that are going through right now are in it for the bucks, and nobody wants to do family practice. You can't get anyone to do it. The ones that do are lured away by small towns offering big money because they can't get anyone.

This year at IU Medical Center, more people did anesthesiology than all of primary care combined.

Dr. Allen asserts that medical students need to be exposed to primary care, and he praises IU School of Medicine for requiring the month of family practice.

CONCLUSIONS FROM THE INTERVIEWS

Students. The students in this study both acknowledged the emphasis that is being placed on primary care. In their opinion, the disadvantages to going into primary care in a rural area are:

1. Larger time commitment
2. Lack of respect in the medical community
3. Lower pay than other specialists
4. Lack of nearby medical facilities and personnel
5. Less technical
6. Less prestigious and exciting

Both students also recognized the following attributes in primary care:

1. Stronger relationships with patients
2. Continuity of care
3. Less competition from specialists
4. Opportunity to treat patients of all ages
5. Opportunity to treat many types of medical problems
6. Freedom to tailor one's practice

The students also saw the pros and cons of being highly specialized.

The disadvantages to being a subspecialist that they mentioned were:
1. Many years of required training
2. Treat only a limited number of medical problems
3. Lack of continuity of care with patients
4. Lack of personal relationships with patients

The students saw these advantages associated with being a subspecialist in an urban area:

1. Higher income
2. Less time commitment
3. More prestigious

**Urban Specialists.** Because of the nature of their specialties, both of the physicians in this category must practice in areas with large patient populations. Both of them had seriously considered going into primary care, but they did not for the following reasons:

1. Less exciting
2. Less technical
3. Too broad
4. Mostly office-based practice

Both doctors seem to get a lot of satisfaction from their work in pediatric subspecialties. Some of the reasons that they listed were:

1. Highly technical and creative
2. Fun and challenging
3. Enjoy working with children
4. Gratification of the families
5. Respect in the medical community

The regrets that the specialists felt were:

1. Many years of training
2. Miss the other areas of medicine
3. Long hours at the hospital
4. Lack of time with family

**Rural Family Practitioners.** The two primary care physicians in this study expressed almost identical joys and regrets. They both chose not to subspecialize because they:

1. Enjoy many areas of medicine
2. Thought they would be bored doing one thing all of the time
The things that they enjoy most about their work are:

1. Delivering babies
2. Strong relationships with patients
3. Opportunity to practice many types of medicine
4. Overseeing overall health of patients
5. Treating a variety of ages and ailments

Both physicians had the same regrets about choosing primary care:

1. Large time commitment
2. Lower salary than other specialists

Practicing in a rural community has its advantages and disadvantages. Some of the pros are:

1. Well-known and respected in the community
2. Less competition from other physicians
3. Know many of the patients on a personal basis

Rural practice has a downside as well. Some of the negative aspects are:

1. Problems with call coverage and time off
2. Larger time commitment
3. More of an obligation to stay in the office
4. Travel time to the hospital

The results of these interviews indicate several clear issues that contribute to the selection of specialty and location. These issues have been addressed in several programs and proposals which attempt to influence individuals to choose careers in primary care and to practice in rural areas.

PROGRAMS AND PROPOSED REMEDIES TO ADDRESS THE RURAL PHYSICIAN SHORTAGE

According to many sources, educational reform is the first step in assuring a better geographic and specialty distribution of physicians. The problem has been addressed extensively in professional and academic literature, and the Association of American Medical Colleges (AAMC) held a voluntary symposium entitled "Rural Health: A Challenge for Medical Education" to broach this issue.

Dr. Thomas A. Bruce (1990) participated in the symposium, and he outlines four areas which may help to alleviate the shortage of rural, primary
care physicians. The first area is recruitment. Dr. Bruce has done research which shows a strong correlation between a physician's geographical background and the location in which he/she chooses to practice (Bruce and Norton 1984). Therefore, he argues that medical schools should recruit students from rural areas by offering them special scholarships and loans if they agree to return to a rural area to practice.

The second area that he addresses is socialization. According to Dr. Bruce (1990), students need to become familiar with the rural setting in order to become attracted to it. Because most medical education takes place in metropolitan areas, students have little or no access to rural medicine. Dr. Bruce suggests that rural family practitioners teach introductory courses in medicine, and that the schools implement rural recruitment fairs and encourage students to volunteer in rural areas.

The third area that Dr. Bruce (1990) addresses is curricular reform. He acknowledges that improving this area alone will not produce more rural, primary care physicians. However, he does believe that students can be influenced by certain educational reforms. Community-based training early in medical school and a variety of rural electives may entice students to go into rural practice. Medical schools' increasing the number of residency programs with rural ties may also increase the number of students who want to practice in rural areas.

The final topic of Dr. Bruce's (1990) paper is technical assistance to communities. He encourages closer ties between the universities and rural communities. The universities could educate and counsel the leaders of small communities on how to attract and retain qualified medical personnel and to improve community health care and education.

Dr. Arthur Kaufman (1990), who also participated in the AAMC symposium, focuses on successful educational programs which have already been implemented
at various medical colleges. The educational programs that have successfully influenced students to practice in rural areas generally expose students to rural practice early in the curriculum and continue that exposure throughout the medical school years. They also use primary care physicians who practice in rural areas as positive role models for the students.

According to a survey conducted in 1989 by the Association of American Medical Colleges, twelve medical schools reported that over 30% (compared to 25.4% nationally) of their graduates were planning to go into primary care. Of these twelve schools, ten of them had implemented programs in which students could gain experience in clinics outside of the university setting. Included in these ten schools were the University of Washington School of Medicine, which sponsors the WAMI (Washington, Alaska, Montana, and Idaho) program; Indiana University School of Medicine; and Michigan State University College of Human Medicine (Murray, Wartman, and Swanson 1992).

Another successful program is the Minnesota Rural Physician Associate Program (RPAP). In 1970, the state of Minnesota threatened to cut funding to the University of Minnesota Medical School unless they changed the curriculum to encourage students to practice in underserved areas. In response to the threats from the government, the university formed the RPAP. For nine months during their third year of medical school, the RPAP students are paired with board-certified primary care physicians who are associated with accredited hospitals. The students learn through a problem-based curriculum that includes few lectures (Verby et al. 1991).

Before beginning the program, students must have completed six weeks of clinical training in the areas of internal medicine, obstetrics, and gynecology. They must have also passed part I of the National Board of Medical Education Exam. Approximately 30 students out of a class of 228 students are se-
lected to participate in the program during their second year. In most years, more students apply than can be accepted. Interestingly, former RPAP students are teaching 60% of the current RPAP students, and that percentage is expected to rise (Verby et al. 1991).

This program is very successful, and it is popular among the students. In fact, 97% of the RPAP students surveyed said that they would participate in the program again if they had it to do over. The RPAP has also had some positive outcomes for the state, including improving primary care access to all 87 counties in Minnesota. Additionally, Minnesota has the best primary care physician/population ratio in the nation and better access to primary care in rural areas as a result of this program; therefore, the Minnesota legislature awarded a 30% increase in funding to the RPAP (Verby et al. 1991).

Some other benefits of the RPAP are that 74% of the program's graduates go into primary care, and 64% go into family practice across the nation (Table 1). In Minnesota, 88.6% of the graduates go into primary care, 71% go into family practice, and 58.8% practice in rural areas (Table 2). The RPAP graduates perform better on part II of the Boards than non-RPAP students (Table 3). Additionally, they possess a higher level of self-confidence, and they feel they have received appropriate instruction. RPAP graduates also have good results in the National Residency Matching Program (Table 4) (Verby et al. 1991).

The RPAP has succeeded in overcoming the shortage of primary care physicians in Minnesota through an effective alliance among the University of Minnesota Medical School, the Minnesota government, and local communities. One of the attributes of the program is that it is inexpensive: the physician preceptors are not paid for teaching the RPAP students; faculty in the communities make significant financial contributions; and preceptors take legal
Table 1. Specialty Selection of 457 RPAP Graduates in Practice in the U.S.\textsuperscript{a}

<table>
<thead>
<tr>
<th>Specialty</th>
<th>No. (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Practice</td>
<td>290 (63.5)</td>
</tr>
<tr>
<td>General Internal Medicine</td>
<td>43 (9.4)</td>
</tr>
<tr>
<td>General Surgery</td>
<td>15 (3.3)</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>10 (2.2)</td>
</tr>
<tr>
<td>Obstetrics/gynecology</td>
<td>6 (1.3)</td>
</tr>
<tr>
<td>Pediatrics/neonatology</td>
<td>6 (1.3)</td>
</tr>
<tr>
<td>Medical subspecialties</td>
<td>6 (1.3)</td>
</tr>
<tr>
<td>Surgical subspecialties</td>
<td>20 (4.4)</td>
</tr>
<tr>
<td>Emergency medicine</td>
<td>16 (9.8)</td>
</tr>
<tr>
<td>Other</td>
<td>45 (9.8)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>457 (100)</strong></td>
</tr>
</tbody>
</table>

Table 2. Practice Location of 284 RPAP Graduates Practicing in Minnesota\textsuperscript{b}

<table>
<thead>
<tr>
<th>Location</th>
<th>No. (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>167 (58.8)</td>
</tr>
<tr>
<td>Urban</td>
<td>117 (41.2)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>284 (100)</strong></td>
</tr>
</tbody>
</table>

Table 3. National Board Scores for RPAP and Non-RPAP Students from 1984 through 1987\textsuperscript{c}

<table>
<thead>
<tr>
<th>Part I</th>
<th>RPAP Students</th>
<th>Non-RPAP Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>513</td>
<td>527</td>
</tr>
<tr>
<td>Part II</td>
<td>522</td>
<td>511</td>
</tr>
</tbody>
</table>

Table 4. National Residency Matching Program Results for 23 RPAP Students and 177 Classmates in 1989\textsuperscript{d}

<table>
<thead>
<tr>
<th>Choice</th>
<th>RPAP Students (%)</th>
<th>Non-RPAP Students (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>78.3</td>
<td>61.9</td>
</tr>
<tr>
<td>Second</td>
<td>13.0</td>
<td>13.8</td>
</tr>
<tr>
<td>Third</td>
<td>4.3</td>
<td>7.4</td>
</tr>
<tr>
<td>Fourth</td>
<td>4.4</td>
<td>4.2</td>
</tr>
<tr>
<td>Fifth, or no match</td>
<td>0.0</td>
<td>12.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

\textsuperscript{a,b,c,d} These tables were taken from JAMA, July 3, 1991, p. 112.
responsibility for the actions of the students whom they are host-
ing (Verby et al. 1991).

The University of Nebraska has also implemented a successful program in medical education. The Primary Care Program is a result of the combined sponsorship of the departments of internal medicine and family medicine. This four-year schedule begins in the students' senior year, and they all participate in the same curriculum for two years. In the third year of the program, students may choose to pursue either of the two specialties (O'Dell and Sitorius 1992).

Financial incentives exist to make the program more attractive to students. For example, if the students complete the program, they do not have to pay tuition for their senior year. Additionally, if they practice in an underserved area of Nebraska for at least two years, they do not have to repay the loan for their living expenses during their senior year (O'Dell and Sitorius 1992).

The curriculum begins with training in the various types of primary care as well as training in surgery, the emergency room, and the intensive care unit. The students spend time in clinics outside of the university, which are run by family practitioners and internists so that the students can become acquainted with each type of practice. The second year is essentially an extension of the first year's rotational experiences, and students spend more time in the off-campus clinics (O'Dell and Sitorius 1992).

During the third year of the Primary Care Program, students decide to specialize in either internal medicine or family practice, and they receive extensive training in their respective specialties. Since the students in this program are completing four rather than three years of residency, they develop additional skills and get more experience than three-year residents. However, since the students' senior year is included in the program, they do
not have to spend an extra year in school to receive this additional training (O'Dell and Sitorius 1992).

Although the RPAP and the Primary Care Program do not provide a panacea for the maldistribution of physicians, they do provide a step toward increasing the number of primary care specialists who choose to practice in rural areas. Other programs designed to improve physician distribution in underserved areas are the National Health Service Corps (NHSC) and Area Health Education Centers (AHEC), both of which are controlled by entities outside of the universities.

The NHSC is a subdivision of the Public Health Service, and it sponsors several programs which focus on primary care and preventive medicine for the underserved populations in the United States. They encourage students to take advantage of learning opportunities outside of the classroom. Participants in the NHSC programs get the opportunity to take active roles in health care services in rural areas while they are still students. This type of first-hand experience may influence their decisions to practice in underserved areas (Weaver 1990). The NHSC has also significantly influenced the retention of physicians in underserved areas. Depending on the definition of "retention," the NHSC has documented rates which range from 10% to 50% (Politzer et al. 1991).

The federal government has helped to establish Area Health Education Centers throughout the U.S. since 1972, and Congress officially authorized this program in 1976. AHECs serve as regional centers for specific geographical areas away from the university setting. Many AHECs service rural areas and inner cities. However, AHECs are not controlled by the university. Instead, a community corporation (such as the board of trustees of the local hospital) oversees the individual AHEC's activities (Mayer 1990).
The programs of the AHEC not only help to train residents during their rotations at the centers, they also provide continuing education and consulting services for practicing rural physicians. Extensive library networks with trained medical librarians are also available to rural doctors through the National AHEC Program. By linking the private and academic divisions of the medical community, the AHEC program exposes students to rural practice and keeps rural physicians abreast of the latest medical developments in the academic sector (Mayer 1990).

The AHEC has been particularly successful in North Carolina. There, the AHEC (along with other factors) contributed to the 127% increase in primary care residents and to the 660% increase in family practice residents from 1973 to 1990. Moreover, 43% of the participants in the AHEC program who have gone into family medicine have chosen to practice in towns with populations under 10,000 (Mayer 1990).

Because the AHEC is committed to all aspects of rural health, it is not limited to medical students. The program also influences students in other health-related fields, such as nursing, dentistry, and pharmacy. All of these disciplines must work together to attract and retain quality health care providers in underserved rural areas (Mayer 1990).

Despite the success of these programs, Dr. David A. Kindig (1990) argues that, without financial incentives for the physicians, educational and recruiting reforms will not suffice in alleviating the rural physician shortage. Regardless of such reforms, according to Dr. Kindig, students and physicians will still be attracted to urban subspecialties because of greater earning potential.

Politzer (et al. 1991), also asserts that lower-paying careers in primary care are not as attractive to students as the specialties with greater potential income. For example, Politzer cites that orthopedists earn in ex-
cess of $100,000 more annually than family practitioners. Currently, Medicare reimbursement is also unequally distributed among primary care physicians and other specialists. However, a gradual transition in the reimbursement schedule (that will take place over the next four years) will help to remedy this problem by placing more value on nonprocedural services which are often performed by primary care physicians. Despite this 1996 revised Medicare fee schedule, large salary differences among physicians will still exist.

Nonetheless, the success of programs such as the ones mentioned above may help to alleviate the shortage of primary care physicians in rural areas. Indiana is one state that is still suffering from this shortage. For example, in rural Indiana, there is only one physician for every 1,270 residents. In urban areas, the ratio is one doctor for every 577 residents. Marion county (where Indianapolis is located), for instance, has 30% of the state’s physicians but only 14% of the state’s population. While not all rural counties in Indiana suffer from a lack of physicians, the U.S. government has declared forty-two of them "areas of medical shortage" (Headden 1991). Ohio county, for example, does not have any physicians (Headden 1991).

Indiana's rural hospitals are in trouble as well. Almost 25% of them are in debt, and at least one has closed because of financial problems created by the physician shortage. Several county hospitals are in need of primary care physicians simply to replace the doctors who are ready to retire and the ones who have died. Therefore, the administrators of these hospitals are trying desperately to recruit doctors by sending promotional literature to students early in their medical school years. One Indiana hospital is offering a $50,000 payment plus additional financial incentives to entice practicing physicians to move into the area. Other hospitals are guaranteeing annual incomes in excess of $200,000 in order to attract physicians (Headden 1991).
These attractive offers may serve as successful recruiting tools, but they will not guarantee that a physician will stay for an extended period of time. A doctor may be lured away by another attractive offer somewhere else. Also, these types of financial incentives will not necessarily attract quality physicians (Headden 1991).

As mentioned earlier, Indiana University School of Medicine graduates a relatively high percentage of primary care physicians; however, the number of IU medical students who specialize in family practice has declined from 22% in 1981 to 11% in 1991 (Headden 1991). As of 1991, IU medical students must complete one month of training with a family doctor. This new requirement is a result of the efforts of Dr. Deborah I. Allen, head of the family practice department at IU’s medical school. She hopes that this rotation will attract more students to family medicine.

CONCLUSIONS

According to the background research and the results of the interviews, the relatively low income of primary care physicians and the perceived lack of respect for them are major contributors to the decline in the number of primary care physicians. On the other hand, stressing the variety of primary medicine, exposing students to the positive aspects of primary care in rural areas, and recruiting students from rural areas may be ways to increase the number of rural, primary care physicians.

INCOME DIFFERENCES

The results of the interviews and the background research indicate that the salary discrepancy among primary care physicians and other specialists may prevent individuals from choosing specialties in primary care (Politzer et al. 1991). Several proposals and programs exist which may reduce this effect on shortage of rural, primary care physicians. Some educational programs, such
as the Primary Care Program in Nebraska, offer tuition waivers and loan forgiveness for students who plan to go into rural primary care (O'Dell and Sitorius 1992). Rural hospitals are also promising high annual salaries and other financial bonuses for physicians to practice in rural communities (Headden 1991).

Recruiting students and physicians by offering immediate financial incentives may provide a quick fix, but it is not a long-term solution to the problem. The total income of primary care physicians must increase in relation to the incomes of other specialists in order to attract more students. The gradual changes in the Medicare reimbursement schedule are an effort to improve the income of primary care physicians (Politzer et al. 1991). While primary care physicians will probably always earn lower annual salaries than other specialists, these programs and proposals may help to reduce the large differences in their respective incomes.

RESPECT

While the rural family practitioners who were interviewed felt that they were respected in their communities, the students who were interviewed perceived primary care physicians as less respected than other specialists in the medical community. The perceptions of these students may be attributed in part to the lack of primary care physicians as positive role models in medical schools (Murray, Wartman, and Swanson 1992). This problem has been alleviated through many educational programs such as Minnesota's RPAP (Verby et al. 1991), Nebraska's Primary Care Program (O'Dell and Sitorius 1992) and Indiana University's required family practice rotation (Headden 1991) and through federal programs such as AHEC (Mayer 1990) and NHSC (Politzer et al. 1991, Weaver 1990) which expose students to primary care medicine in rural communities.
By placing rural, primary care physicians in respected positions in the university setting, universities may be able to increase the amount of respect for them in the medical community. Moreover, students who are exposed to primary care specialists may be better able to appreciate the important role of primary care in medicine.

**VARIETY**

The subspecialists and the students who were interviewed perceived primary care, particularly family practice, as unexciting. The rural family practitioners, on the other hand, thought their jobs provided a lot of excitement and variety. Unless students are able to spend time with primary care physicians, they will not be able to appreciate the diversity inherent in primary care. The programs discussed in the previous section (RPAP, NHSC, AHEC, etc.) may be able to emphasize to students the multifaceted nature of primary care. By exposing students to the variety that is involved in primary medicine, medical schools may be able to attract more students to those specialties while dispelling the myth that primary care is boring.

**RURAL LIFE**

The programs listed above will also expose students to life in rural communities by allowing them to learn in rural settings from rural physicians. Research has also shown that geographical background influences physicians' decisions to practice in rural areas (Bruce and Norton 1984). For example, Dr. White, Dr. Allen, and Pete were all originally from small towns and rural areas; and they are attracted to rural life. Students and physicians who have never experienced life in a rural community may not be attracted to it. Therefore, recruiting medical students who are from small communities may help to increase the number of rural doctors (Bruce 1990).
Along with variety, the rural family practitioners who were interviewed get satisfaction from the relationships that they have with their patients. Knowing patients on a personal basis is common in rural areas, so students who value those types of relationships may be attracted to rural medicine. According to the rural family practitioners who were interviewed, greater respect from the community and less competition from other physicians are also attributes of rural practice that may attract students.

COMMENTS

Most students do not go into medicine for purely altruistic reasons. They are attracted to lifestyles that they find personally appealing. We cannot force individuals to go into a practice that will make them unhappy. However, our society and our educational system may be able to persuade more students and physicians to make certain choices by stressing the ways in which practicing primary care in a rural area will benefit them as individuals. Only then will the number of rural, primary care specialists begin to increase.
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