

Conversations in Primary Care

Donald L. Madison, MD (with Frank Leak, MD, and Jane McCaleb, MD)

DURING THIS SUMMER I was able to spend a few hours listening to a couple of outstanding physicians who have worked in primary care practice long enough to be able to reflect on their own stories. I must confess that although I've written about primary care, taught courses, given speeches and planned conferences about it, made and received grants to support it, and schemed and cajoled to enact policies that (I hope) advanced it—and I have also been the patient of some extraordinary primary care doctors—that's the extent of it. What I lack is the experience of having sat in those people's chairs. I've never actually practiced primary care. Maybe it is this glaring lack of experience that explains why it is that I so enjoy the chance to hear the practitioner's side and thereby live it vicariously.

I've known Dr. Jane McCaleb since she arrived in North Carolina. She had been one of the physician leaders in the Rural Practice Project, a national grants program that I directed for the Robert Wood Johnson Foundation from 1974 through 1979.¹ Jane arrived in Jackson, North Carolina, in 1979 and has been there since. She is a family physician and medical director of the Roanoke-Amaranth Community Health Group, which is headquartered in Jackson (Northhampton County) but also operates in several other locations.

I met Dr. Frank Leak only last July, although I certainly knew his name before then. Frank lives now just north of Wilmington and next to the links. For 32 years, however, he practiced family medicine in the Clinton Medical Group. Five years ago he left practice and succeeded Dr. Harvey Estes as director of the North Carolina Medical Society Foundation in Raleigh. He performed those duties for two years, until he retired and moved to Wilmington a year ago. Frank has opinions on several matters, from physician training to the advantages of rural living; and he remembers well his workstyle and the reasons for it:

A physician manpower shortage area is now defined as something like 3,500 or more people per primary care physician. When I went to Clinton (I figured this up one

time) there were 7,000 people for each primary care physician. Well, I had to do the work; it was either me or nobody. The kind of training I had in my residency program prepared me for it. ...I think that the movement toward restricting the time residents are allowed to work is a move in the wrong direction. You don't teach somebody to run a marathon just by going out on the day of the marathon. Residency training is in part a toughening process....

I had intended to talk with more practitioners than these two, but time (and, I now discover, space) ran out. Along with that apology I must add a disclaimer: Neither Frank nor Jane—they and I will acknowledge—represent primary care in North Carolina. Both are from family practice, both come from east of I-95, and both have spent their entire careers, nearly, in nonmetropolitan locations. These attributes are all naturally reflected in their experiences.

At the same time, they represent contrasts; enough so that I think that most primary care practitioners can identify with at least some part of one of their stories. Frank spent his career in private practice, while Jane's practice has been in a nonprofit, community-based clinic. As for the organizational versus personnel division of "primary care" that I've outlined in an accompanying article, both Frank and Jane span this divide rather easily, although I think I detect in their comments (you may, too) that Jane may lean more towards the organizational and Frank toward the manpower question. Yet both have had illustrious careers as practitioners, leaders and teachers, and they have been publicly recognized for their work. In 1989 the National Rural Health Association named Frank Leak its Rural Physician of the Year. He also served a term as president of the NC Academy of Family Physicians. Jane McCaleb has won awards from the National Health Service Corps for reduction of infant mortality; and the NC Academy of Family Physicians named her its North Carolina Family Physician of the year for 1999.

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Jane McCaleb's parents came from Sooner stock—"Oklahoma dirt farmers" is her description. Her mother grew up in Wynnewood, her father in Olustee; both are small towns situated, respectively, in the south central and southwest sectors of that state. Her parents read well and thus became well-educated people. They left Oklahoma for Kansas City, and when Jane was six the family moved further east to the university town of Columbia, Missouri. From that base Jane's father traveled the Midwest for a textbook publisher. His job: seeking ideas and recruiting writers for texts in agricultural science and math (Linus Pauling was one of his firm's more illustrious authors). Jane attended the Columbia public schools before going off to college at Harvard, where, she explained to me (since I impolitely raised the question), she did not distinguish herself particularly:

I think one of the benefits at Harvard is that most of the people who go there have already distinguished



Jane McCaleb

themselves in high school, and then when you get there you become one of the crowd. That was an important lesson to learn. But I just plugged along, like most of the Cliffies—80% of Cliffies graduated with honors and went into law or medicine, a pretty professionally oriented group. I was a psychology major. That was considered a natural science because it was Skinnerian—B. F. Skinner, you know, and the William James Center. When I graduated I laid out for a year and worked as a nursing assistant at a community mental health center back in Columbia—a minimum wage job with a Harvard degree. I hadn't wanted to do pre-med because the pre-med environment at Harvard was exactly what we're paying for now; it was a very competitive, cut-throat kind of thing, where people cheated all the time to make the top of the curve—and then 30 years later we're

surprised to learn that researchers cheat. But they train them so well.

She thought about medical sociology and medical social work, but decided instead to enter medical school at the University of Missouri, and then took a family practice residency at Tucson. From there she moved to Jackson as a member of the National Health Service Corps.

I first came here in 1978 on a recruiting visit—the week before Thanksgiving—and started working here in '79. So I've been here 23 years. Joe Berry [an internist and also a National Health Service Corps volunteer] had been here three years already. The money from the Rural Practice Project [Robert Wood Johnson Foundation] had come two months before my recruitment trip.

Jane explains that the new specialty of family practice was just getting under way as she was finishing college and entering medical school. Therefore, her medical career more or less parallels the growth of that specialty.

They had just formed a department of family medicine at Missouri—a good one. And that was an attraction to me, because I actually would not otherwise have wanted to go into medicine, having seen what I had seen at Harvard, which, I thought, was the antithesis of taking care of people. It wasn't about people; it was about being smart. But I also knew that family medicine was not a well-formed specialty, although the University of Missouri had actually done quite a lot, and they had good role models there—Jack Colwell and Jerry Royster—and quite a few family practitioners, too. None of them were residency-trained, but they were good, and they had a good concept of family medicine.

Then when I went for residency it was a little different, because there weren't many residencies really geared up yet...that had family medicine faculty. So, for example, when I visited UNC, I interviewed with an internist and a pediatrician. I also interviewed at Charlotte—that was actually my first choice, but I didn't get in there. At the University of Arizona, where I went, the head of the department was actually a pediatrician. The family practitioners there were not such good role models, not that well trained. But the best thing about it was a good group of residents—we taught each other, and I think we learned a lot. But I will say that coming out of residency I didn't know much. I had knowledge, but I really didn't know how to take care of patients. It helped a lot having Joe Berry here because he was a well trained internist. But Joe couldn't help me with peds or OB, and he didn't really fully understand the community medicine aspects either. It was rare in the seventies to find an internist recruiting a family practitioner, but Joe knew

that he needed a family practitioner as a partner—unusual.

Frank Leak grew up in Rockingham, Richmond County, a poor rural area. He finished high school in the mid-1950s and then enrolled at UNC in Chapel Hill, graduating in business administration. Then he entered the Army.

I was drafted; it was right between the wars—the Korean War and the Viet Nam War. I served two years as an enlisted man, and most of that time was at the hospital at Fort Leavenworth, in Kansas. I was sort of a general gofer—not a corpsman or anything, just a clerk-typist working in administration, but for the post surgeon. And that sort of whetted my appetite a little bit for medicine. But when I came out I thought I was too old to try anything like that. So I worked as the accountant and personnel manager for a hosiery mill in Rockingham. You can tell something about the size of that mill by the fact that I filled both those jobs. Then I went to work for the Burroughs Corporation as a salesman, for about two years—typewriters, accounting machines, banking machines, cash registers, that kind of thing. Well, I was really unhappy. I just knew I needed to do something else with my life. All the time I was working that job I was just into one thing after another—in my mind.

Finally, one day I was visiting a group of pediatricians in Charlotte—I had sold them an accounts machine, and had set it up, and so on. And I went back to see the doctor I'd talked to about the machine, to make sure everything was OK and see that the employees knew how to take care of it, and I told him I would be back to check on it again. And then he told me that the reason *he* was the one who had talked to me—instead of one of the other physicians—was that he had a business administration degree. Well, when I left that office and went out to my car I just sat there. And I said to myself, "If that dumb SOB can study medicine and get through, I know I can." And so I went up to the library in Charlotte and got the books and looked up what I needed to do, and came home, and thought about it all that night. And the next morning I told my wife, "If my manager calls, you tell him I'm somewhere else, but I'm going to Chapel Hill and enroll in pre-med." And she just . . . her mouth hit the table. But I did it. I went down there and enrolled. I'd never had a chemistry course. It took two years. And I didn't have great grades previously, so I had to make really good grades to bring my average up to get into medical school. I think I applied to 40 medical schools, almost, because I knew I had to get in somewhere.

I got accepted to Chapel Hill. Dr. Somers—Earl

Somers—was the one who interviewed me, and he said: "Lord, you've applied to a lot of medical schools!" And I said, "Well, I'm not a young man, and I've got a wife and family." (By that time I had two children.) "And I'm going to get in to some medical school." And maybe that answer was the one he was looking for. I was 30 when I went into medical school and 36 when I finished all my training.

I wanted to be a family physician, in a small town. And it wasn't too popular in those days. Because all the professors wanted you to specialize—and I really was hot-boxed a lot. It was 1967 when I finished. We had 70 in our class, and out of that class, I was the only one who went into family practice. We had some pediatricians and internal medicine people, but only one family doctor.

After medical school I went down to Charlotte, and Bryant Galusha was down there—I thought the world of him—and Dave Citron was an internal medicine guy at Charlotte at that time; he would come in as a preceptor, another wonderful teacher. The reason I chose Charlotte instead of some other place, was that I wanted to go where I would learn about the kind of things that I was going to see in a small town practice. If I had stayed at the University or gone to Vanderbilt or somewhere like that I probably wouldn't have gotten as good training for what I was going to do. Charlotte was out in front in family medicine training then. But there were other good places—like Duval County in Jacksonville, and there was a program in Charleston, and one down in Orlando, Florida. I looked at all of those, but I knew Dr. Galusha, because back when I was with Burroughs Corporation and living in Charlotte he was our pediatrician. And I knew that he had taken that post. Plus, Charlotte was in North Carolina.

I took, basically, a two-year rotating internship. That's what it was. It was what they called a general practice residency—two years, not three. And about a year or two after I got out, that program became the first accredited family practice residency. So I'm not actually a trained family practice person; I'm grandfathered in.

When I finished—I was fortunate in a way because my father left me a little bit of money. It wasn't much, but it was enough to give me \$125 a month. And we had three children by the time I was out of residency. Betty was never employed; she was a homemaker, raised the children. And I had night jobs, volunteered for everything the medical school had in the way of research that needed a guinea pig. I made a little money that way. I sold blood. I did everything I possibly could do. And then when I went into residency I gave life insurance physicals, like crazy. I did them at three o'clock in the morning in machine shops. The GI Bill helped a lot.

It came in during my fourth year. That was like manna from heaven! And when I finished my residency and came into practice, I did not owe one cent. I had made it through and was debt free.

But about how I got to Clinton . . . My wife was from Warsaw, which is 14 miles away. And during the summer, I could rent my house—I had a little cracker box house in Carrboro—to summer school students. So at the beginning of the summer following my first year in medical school I went to the hospital administrator over in Clinton, Mr. Woodside. And I said, “Now I can’t help you in medicine or anything, but I do have a business administration degree, and I can help you, I think, in administration.” (You know, to fill in for people who were going on vacation.) “And I’d like to have a job.” So he gave me a job in the admissions office. Well, we lived that summer in Warsaw with my wife’s family, rented the house in Carrboro, and that sort of got me into Clinton.

There were two separate partnerships of family doctors down there. And I got to know them. And when the time came for me to look around, the next thing I knew they wanted to talk to me. They were merging, forming a group, the four of them, and building a building. And I became the fifth member of that group. The group is still there. It’s had changes in membership over the years, but we built it into a group of seven family doctors and two pediatricians.

Jane admits that most of her primary care training occurred after her residency—on the job. That’s where she gained confidence as a clinician and also where she learned to practice what she calls “community medicine.”

In the past five to ten years my comfort level has reached the place where I know I’m a good doc, but for the first five to ten years I didn’t really know. And I’ve learned a lot of community medicine along the way, too, which I had never really had much exposure to. They did teach you a little epidemiology and called that community medicine. But community medicine to me is about looking at the community, figuring out what the problems are, then finding who is interested in those problems, getting them together, and seeing if you can attack the problem with a larger group—the health department, the hospital, the community boards—and understanding how to make things move...and also how slowly things move.

I made a lot of mistakes in the beginning, because you come in thinking you know how to fix things—and some of those things did need fixing, quickly. For example, we had a tremendously high neonatal mortality rate. Within three years we were able to turn it around—from 3% to below the state average. But you

pay a price. Years later people are still upset over how you did things. So I’ve learned how to become a little more politic; yet, at the same time I think sometimes you just have to push things, often over some people’s objections—people with turf issues, other agencies, who may feel threatened, not because you’ve done anything in particular but sometimes just because you’re here. So that’s a judgment call. But it takes some sensitivity not to just say, “I think this is the way it should be.” Learning how to be an agent for change is a slow process. But you do have to learn it if you’re going to come into a community like this and be effective. That’s a different and far harder challenge than the usual, “Here’s another patient in front of me.” Because it requires looking at the broader sweep and then deciding where to focus.

For the first ten years I did quite a lot with OB and neonatal mortality. And then we built the nursing home, and shifted our focus more toward geriatrics—we hired a geriatric nurse practitioner, and we really stressed services in the community for the elderly: senior centers, apartments, trying to keep people out of nursing homes. This was at a time when DRGs [diagnosis related groups] became part of Medicare and hospitals began sending people home earlier—and sicker.

Now we’re in another shift toward chronic disease management—diabetes, hypertension, those kinds of things. Why that particular shift? I think it’s because the therapies are so much more effective now. There was no real proof until a few years ago that treating diabetes made any real difference in terms of outcome, and the reason was that we didn’t understand that you had to control blood pressure, sugar *and* lipids. Only in the past seven or eight years have we had effective strategies for actually decreasing mortality from diabetes—with better (and more expensive) drugs.

She adds that focusing on chronic disease management inevitably means also focusing on what she calls “our system of care,” which, she adds, means “how the care is delivered, how screening programs are organized, and how the entire staff plus other resources in the community are involved.” Something called “evidence-based medicine” plays an important part in all of this. Jane defines it:

It means that you do things where there is some evidence that it makes a difference. You would think that that’s what we’ve been doing in medicine all the time, but that’s not necessarily true. For years we could lower cholesterol using certain drugs, but it didn’t change the death rate. People with normal cholesterol still died prematurely. We were treating an intermediate problem, not changing the long-term outcome. We could get people’s blood sugar under control with insulin, but it didn’t change the rate of peripheral vascular disease or

heart attacks or those sorts of things. So—I would say the first fifteen years I was in practice—I was not aggressive about controlling blood sugar or cholesterol. I would work on blood pressure, because it had been shown that if you controlled blood pressure you lowered the risk of stroke, but you didn't lower the heart attack risk. I was always asking myself, what is going to benefit the patient most?

Things shift. And about seven or eight years ago the data started coming in that said you can make a difference in diabetes, that you can make a difference with lipids, because there were new drugs. And, interestingly, this new information seemed to coincide with a huge burst in the amount of diabetes in this country, which is related to obesity and the fact that the number of people who are obese has doubled in 20 years, and that we're seeing so much of it now in 13-, 14-year-old kids.

So I would say that in the past decade our emphasis began to shift in the direction of trying to apply the things that are known to work in chronic disease management. Still, the real issue is that you have to have the health department, the hospital, social services, everybody at the table working on the same thing. It doesn't work nearly so well doing it in the traditional way, on a one-on-one basis. There are simply too many things—like transportation, getting the medication, advocacy with children (you need the schools involved). So we're shifting more toward community-wide approaches. We've always done this, but now we're doing it with respect to chronic disease management.

Frank Leak's recollections of his early years in practice turn to the problem of assuring specialist back-up. When he arrived there, Clinton had, in addition to his group of five, four other solo GPs, three general surgeons, and two general internists. "They were our consultants," he says. Frank remembers his uncertainty about relationships with newly arrived specialists as well as the arrangements his group made for specialist support from outside the community.

I remember when the first specialist came—other than a general surgeon or internist. He was a urologist just retired from the Navy. The hospital recruited him. I was doing the kinds of office urological procedures that all family doctors did in those days, like dilating urethras and so on, and I was just afraid that he was going to take that away from me. I was worried about that because, you know, I'd never been in a community with specialists. I think the others in our group shared my apprehension; we all did. But as it turned out, we built our practices together. We referred to specialists and they to us. Having specialists in town attracted patients to the town. It worked out well. And then from there, through the years, more came until there are now two orthopedic

surgeons, two urologists, an ophthalmologist, a dermatologist, three pediatricians, and one OB. Early on most of the specialty care that we referred out of Clinton would have been oncology; but then later the oncologist came to Clinton. We also referred chronic renal disease out; but then we got to the point where there was a dialysis unit in Clinton, so that those patients didn't have to leave either.

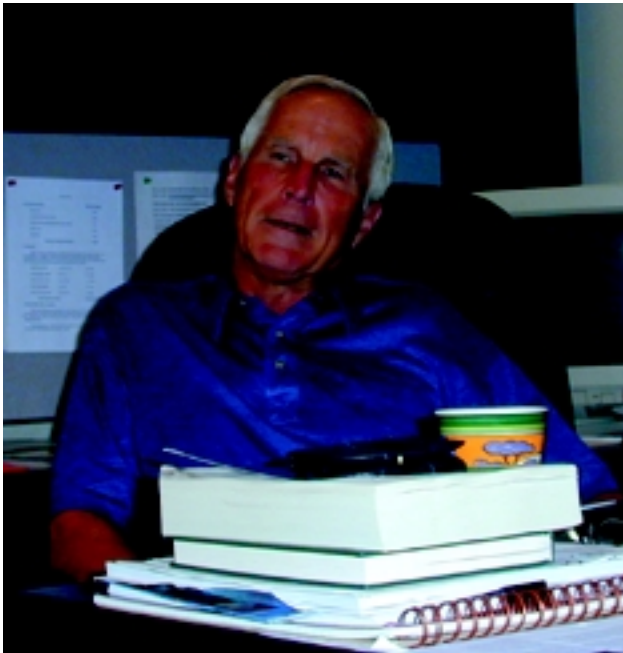
But cardiology was the major problem. It used to be that if a patient had an MI they just went into our hospital in intensive care and rode it out, and they either lived or died. And if they had a subendocardial MI... In those days we called that a 'mild heart attack' but what we didn't know was that it was just a pre-big heart attack, and those people often died about two weeks later. But the only thing you could do with an MI in those days was bring them in. You used two drugs: lidocaine and atropine—atropine if they had bradycardia, and if they had PPCs you gave lidocaine. That was about all you did. Those were some horrendous times when you had to ride it out with a patient—24, sometimes 36 hours—with just severe pain. And you didn't know how much myocardial damage they were going to get out of it.

But then, over the years, as invasive cardiology came into being, we became connected closely with Wake Heart Associates. And that, to me—just the way we treated coronary patients—was probably the biggest thing that happened during my medical career. We'd get them into the emergency room, and it got to the point then that we were giving them the TPA [tissue plasminogen activator] and calling Wake—We'd just call the operator at our hospital and say, "Get me the cardiologist on call at Wake," and within five minutes we were talking with the doctor. You know, before that you'd have a heart patient in your hospital, and a lot of times the family would want them to go to Duke or Chapel Hill, or somewhere like that. Well, if any patient of mine ever wanted to go to Duke or Chapel Hill or to any specialist, no matter whether I felt like they should or shouldn't—if the family and the patient wanted to go, I was on the phone to get them there. I would say, "You know, you were just reading my mind, I was thinking the same thing." But in those days, it might take three days to find a cardiologist at Duke—three days for them to call you back. And then he'd say, "Well, we don't have any beds"; and it would take three more days for them to get a bed, and all that time you're having to deal with a nervous family, and all that. So the tertiary teaching hospitals were not the best answer.

And so when Wake Heart Associates came, when Bill Newman came down—he was trained at Duke—Duke trained their own competition... Bill came down to see me (and he'd grown up right there in Clinton; I'd known him from when he was a little boy) and told me

he'd just finished training and had gone to Wake as a basic cardiologist. Well, he described the things he could do and wanted me to send him some patients. Wake Heart Associates was at Wake Memorial Hospital; it was a group of...maybe four cardiologists at that time. And one of Bill's tasks, as a new person in the group, was to find new sources of patients, and, naturally, he went where he knew people.

So I said to him, "Let me tell you our problem. You've got to look at it as we see it." And I told him what a hardship it was to be able to refer a patient. And I said, "When I pick up that phone, I want you on the line, or one of your partners. And you don't make the choice of when you need to see the patient. I make that choice."



Frank Leak

And I said, "If I ever send you a patient..." (from a financial standpoint there are "good" patients and "bad" patients—the Blue Cross patients and the ones that don't have any insurance or any money) "I'm never going to tell you what kind of patient I'm sending you." I said, "If you're going to get my 'good' patients, you're going to take my poor patients." And I said, "The day that I see that you all are not doing that, that's the last patient I'm ever going to send you." And he said, "I understand that." And they agreed to it, and so we had no problem like that, at all.

So we went from treating MIs by riding it out and seeing if they died or lived—and then treating their congestive heart failure, and their angina and whatever else, until they finally died—to dealing with the patient in the ICU with the cardiologist from Wake on the phone, telling him what we had, and suggesting to him

"Maybe you think the patient needs to come up there?"

And he'd say, "I agree with you."

And I'd say, "Well I'll give him the TPA and the heparin, to break up the clot."

And he'd say, "All right, now, where is the patient?"

And I'd say, "In our ICU."

And he'd say, "We'll take care of it."

Well, in two minutes, the coronary care nurse in Raleigh is calling our ICU nurse to get the nursing details straightened out. And then the nurse turns around—I'm still dealing with the patient—and says: "They're on their way in a helicopter"—or on I-40, which would amount to an hour and fifteen minutes, hospital to hospital. And when they showed up they had these vans that were equipped, they had personnel who knew what they were doing, and they'd have that patient on there, and he would be catheterized that day, and unblocked, and have stents put in, and everything. They helped us a lot, too, just by those telephone consultations. We saved a lot of people.

Another critically important item of technology for a rural doctor needing advice was the telephone (invented 1876 by Alexander Graham Bell).

I haven't practiced in five years but one number I still remember is 1-800-UNC-NCMH. You would just pick up the phone.... If I had a thyroid problem in my office, I could call, and an operator would come on, and I would say, "I'd like to talk to the endocrinologist on call." More often than not he'd be on the phone in five minutes. The patient would still be in my office, and I'd tell the endocrinologist what I had and ask what he thought I ought to do, and he would advise me. That was a wonderful thing. And the great thing about it was that if they couldn't find the endocrinologist on call, the department head had to answer the phone! And they helped us with OB. When I went to Clinton the only doctors who were doing obstetrics were family doctors, and the C-sections were done by the general surgeons. They were the old classic, horizontal C-sections. We would have our patients in labor, and if there was a problem I would call Chapel Hill to talk to the resident on call up there in the labor area, and discuss the patient with him, and he would advise me, you know, "Let's wait another 30 minutes of good labor, and if it hasn't moved, then I think you probably ought to do the section." And then we would just call the general surgeon and say, "Cut here, on the dotted line." You know, they didn't really have any OB experience, but they did the sections for us. Maybe 10 years after I was in practice our first obstetrician arrived, and he's been there ever since.

Frank thinks that a primary doctor's first task is to see as many of the people who come seeking care as possible. He

acknowledges that he “may get some argument about this...”

A primary care doctor could probably take a textbook and “cookbook” his way through a lot of other things. But if he did that—took a lot of time with one thing that he wasn’t quite sure about—in his waiting room are 15 or 20 people. Well, I felt that my job was to move people, take care of those things that I knew how to take care of, and as many people as I could take care of. And I needed some place, some one, that was easy to refer to, like the Wake Heart Associates, and the oncologist we referred to in Goldsboro, and the 1-800 UNC-NCMH. These were things that could help me through the transaction, get it done quickly, and move on to the next patient.

Jane McCaleb reflects less on back-up specialty arrangements than she does about what she says is an essential difference in outlook on the part of primary care physicians and specialists. Her concern may reflect the time difference between when she first entered practice and when Frank did (a decade earlier). Frank tells me that it was largely during this period, in fact, that so many more specialists moved into non-metropolitan areas.

To make her point, Jane puts her patients, figuratively, on the witness stand and cites their testimony:

What I find from my patients, who, of course, come to see me because they want primary care—that’s what I do—is that they are unhappy with the specialist system because the specialist only addresses the problem they’ve got, the problem the specialist finds, that the specialist knows how to address. There was a saying: “The specialist finds that you have a disease he treats. And the family practitioner treats the disease he finds you have.” If you know what’s wrong with you it’s fine to go to a specialist. But a primary care doctor should be someone who helps you sort through what’s going on. People have multiple problems, and specialists tend to want to compartmentalize the problem they deal with. And so if you have diabetes and heart disease and pulmonary disease, and you go to a pulmonologist, he wants to deal with your pulmonary problem, but he may not really want to deal with your diabetes.

Another thing is that people have diseases that aren’t diagnosable but are still real diseases. Yet somebody needs to help those patients deal with that and cope with it. There are people with pain syndromes and no doctors who want to see them, and those patients come here. They’re pains in the ass sometimes, but some of them have a chronic pain syndrome *and* they’re diabetic, *and* they’re morbidly obese *and* they have rheumatoid arthritis *and* they have personality disorders. They are not the kind of people most specialists deal with very well.

But I have another pitch to make, not to specialists,

but to family doctors. It has to do, once again, with evidence-based medicine, which is something family medicine now teaches and that most family doctors therefore learn. Yet if they accept that idea they will discover that neck pain does not require a C-spine film, that low back pain does not require a lumbar film, that there are more cost-effective, less high-tech ways of treating patients. It is a matter of asking the question, “Is there any evidence that doing a lumbar film has any beneficial effect?” The answer is generally no, but people keep doing it. Otitis media has been shown repeatedly not to need 10 days of antibiotics. It probably doesn’t need three days of antibiotics. It will usually resolve without treatment. But how do you translate that into practice when people are demanding, “I want a CT scan,” or “I want antibiotics for my ear,” or “I want a shot for my cold?” And I think this is where we need to get into larger issues of community education and action. What, for example, makes people fasten their seat belts? It’s not me telling them to do it. It’s the ticket they may get from the law enforcement officer. What makes people get immunizations for their children? They do it because they want their children in school. And, as somebody once told me, the best way to improve America’s health might well be to require a CON [certificate of need] for every McDonalds and Burger King. That’s the most discouraging thing about primary care: We’re not having much of an impact at the preventive end. And this is where I am discouraged—because of the obesity in this country, the fruits and vegetables not eaten, the lack of exercise. I don’t think I have much of an impact there. I do sit around hammering people to take their medicine, but I’ve given up on their diet and exercise.

Jane returns to “community medicine,” saying that it must happen in her local community in order for the programmatic ideas she has in mind to work.

Internally, in our own group, we have a reasonable way of looking at our policies, of monitoring the way we do things. But that’s not enough. We also have to understand how other people—other health care agencies—in the community function. So if I’m doing breast cancer screening I have to understand what the health department policy is, what the hospital’s policy is for charging this patient who’s uninsured, so that we can negotiate some of those barriers for our patients, whether it’s transportation or access, whatever it is.

I remember that Jack Geiger came and talked during my second year of medical school [about the Tufts-Delta Health Center in Mound Bayou in Bolivar County, Mississippi]. I’ll always remember that because he really did have a big impact on me. I remember his story about

how they wrote prescriptions for milk that hungry and malnourished people could take to the grocery store. They did sanitation. They built a cooperative farm. They worked on a whole variety of things.²

You can't just say, "I'm going to screen people for breast cancer" and leave it at that. Because you'll be ineffective; you need data. That's one of the things primary care lacks. It's not sufficiently data driven. "Oh, I think it's a sore throat; I think I'll use penicillin," a doctor might say—this despite tons of evidence for years that giving penicillin for regular pharyngitis is worthless. Those physicians will answer that question correctly on a test, but then their practice doesn't follow. How do you change that?

Well, in hospital practice it's changed because there they have the data, and they use it. They'll come to you and say, "Every heart attack patient should be on a beta blocker," and they give you the data. Well, that changes behavior. We'll still argue over whether to use heparin or TPA or coumadin in a stroke; and some will advocate one way and some another. But when there's a clear standard, a clear guideline, then the cardiologist will bring it in and inform us: "Here, this is the cardiology guideline for taking care of this. This is the standard of practice."

You see, that has to happen ultimately not just in the hospital but community-wide. There needs to be an organized push on physicians to perform in community practice, and they need to be accountable to the same sort of guidelines as those that have become so prominent in the hospital over the last decade.

Frank has nearly a generation in years lived on Jane (although not quite that much in terms of their respective medical careers, since he was a little older when he started practice than she was). When Jack Geiger was making his pitch for community medicine to Jane and her classmates at the University of Missouri (and at other medical schools around the country), Frank was already practicing in Clinton. His priorities were to make his practice grow, and, as he says, to do it as effectively and efficiently as possible. And, of course, because the Clinton Medical Group was and is a private practice, it pursued a different mission than the Roanoke-Amaranth Community Health Group did when it began in the late 1970s. This is how Frank recalls the essential nature of his work:

I practiced in Clinton for about 32 years. And during those 32 years, most of the weeks I worked were 85-hour weeks, sometimes more, just doing patient care. So I was preoccupied with the next person outside the door, and a hospital full of patients. There just wasn't enough time available to do very much in the way of caring for the community at large. I was on the health department

board, and all of our group were active in the nursing home, and those kinds of things, but there just wasn't enough time for us to be involved in a lot of meetings.

I tried to be a good citizen; I didn't resist change; whenever someone wanted to have a health fair or something like that, I was always supportive. And I know how to, I think, talk with county commissioners. I didn't get in their hair, didn't confront them, wasn't arrogant and confrontational. I went with my hat in my hand. And so I got a lot of things done.

I think a physician needs to go to a town, work as hard as he can to help the folks, to spend whatever time it takes. If it doesn't happen to be 85 hours a week, if all it takes is 40 hours a week to do what needs to be done, then spend the other 20 hours a week or whatever it is doing community work. But I just didn't have the time. None of us did then.

When I went to Clinton we didn't have emergency room doctors. We handled all the emergency room care. I can remember one weekend I went to work Friday morning, worked all day Friday in the clinic, was on call for the weekend, was in the hospital and the emergency room the entire weekend, just one right after the next, and I walked out on Monday morning—I had the day off—and I don't think from Friday morning until Monday morning that I got more than two hours sleep. I was so weary, but I wasn't angry or anything. You know, I thought that was the way it was supposed to be. And it was. Who else was supposed to do it?

I asked Jane how she learns about the changing knowledge on which the "evidence-based medicine" she advocates is built.

Not so much from reading articles in journals. I hear about it mainly at continuing education courses and conferences. I go to the AAFP [American Academy of Family Practice] every couple of years, the national meeting, or the state AAFP. I have to be recertified every seven years, so I did that last year. The amazing thing at these conferences is that you hear how well you're keeping up. I get reassurance that I'm doing the right thing. But I also think I take a critical view of my work... Do I really know if this works? The other thing is that I teach in the family medicine clerkship through AHEC at Rocky Mount, and at faculty meetings we'll often ask each other... "Well, what are we going to teach the students this week?" And we'll go through some questions.... you know, "What is the current evidence on diabetes?" So I learn by teaching, certainly.

And then one thing that helps us here is that we have a pharmacy, and a PharmD on our staff, and we teach the pharmacy students. So instead of getting pharmacy information from drug reps, we get our information

from our pharmacist—and she actually manages patients, too. So she may tell me about this new form of insulin that's come out, that I don't know how to use; so I'll say, "Let's go and educate this patient about it." And the pharmacist will show me how to use it; then she'll manage the patient with me for a while, until I get familiar with the medicine and start prescribing it on my own. Well, that gives me a comfort level, you know, that I can use this medicine, because we have a person on our staff (the pharmacist) who has read all about it, knows how to educate patients about it, and, by the way, does a lot of the professional training. We try to take that out through the group, so that we all know how to do these things.

The Roanoke-Amaranth Community Health Group is a teaching practice, Jane says.

The students from Chapel Hill come here for community week and also for clerkships. And we have pharmacy students here almost all the time. I go down to Rocky Mount and teach some. AHEC has been very important to us, in terms of support, education, everything. I was clerkship director there for ten years. But I no longer do as much teaching as I used to. I had to cut back on something.

When I ask Frank about teaching he tells me that the Clinton Medical Group has always been a "teaching" practice with various kinds of students and affiliations with many of the state's educational institutions.

Over the years we precepted many, many medical students. And back in the '70s, I guess, there was a period of time where we took a resident in his third year from Bowman Gray, and we had an apartment, and they would come down and spend eight weeks, I think it was, on a rotation. They would bring their family if they needed to. We had one examining room for the resident, and we assigned our best nurse to look after them. So they practiced medicine right along beside us. And they delivered babies; we would always be there during the delivery. So that was one of the first rural residency programs of that type that I can think of. And, you know, out of that group of residents, one became one of my partners, one went to Mt. Olive to practice, one went to Mt. Airy, one went to Troy, and one of them is head of the PA program at Bowman Gray. The beauty of that program was that it came in the third year of the family practice residency and...many of those residents wanted to be able to go to a small town, be a small town doctor. But they were afraid to do it. And it was just that experience, of being able to say, "I can do this" that made it possible. Because when they left that rotation at our

place, they knew they could do it, and they went out and looked for a similar place to practice.

We were also one of the residency sites for the East Carolina rural residency program. They had one in Williamston, one in Aoshkie, and one in Clinton. I think East Carolina [ECU School of Medicine] was on the right track when they used their Robert Wood Johnson funds to build those rural residency programs. But what happened, in my opinion—and the dean knows I feel this way, so it's no secret—I think they dropped the ball when they closed that program. Now, East Carolina is the best residency program in the state at putting their family practice residents in rural communities. But their residents went west, predominantly—to the mountains, where it's cooler, and prettier, and where fewer poor people live. The area of North Carolina that most needs family practice, that most needs primary care, is where they came from, not where they went to. During the period of time those three rural residency programs operated, they graduated...I don't remember exactly how many, but I'll say ten. Ninety percent went to rural communities and all except one to places in Eastern North Carolina. But I'd just as soon... I don't want to get involved in that controversy. I just say that if we are going to get good quality primary care physicians in rural areas we've got to train them in those rural areas.

We also had the first PA internship program, where a physician's assistant or a nurse practitioner would get out of their training program and then come down and spend a year working with our doctors. The hospital sponsored it. That went on for about two or three years. So our clinic was always involved in those educational things.

Frank feels strongly that residents need to learn some things that go beyond what they're commonly taught now:

I think a glaring problem that young doctors have... they get in debt; they have trouble making livings; and they cut and run. And so I think that, especially in our primary care residency programs, one of the most important needs is for training the residents in good business practices. If we taught them what overhead means, what income means, what profit means, what line items mean—that kind of thing.... I believe I could walk into a class and just put down on the blackboard, "income minus expense equals take-home pay." We could talk about that sentence right there for three hours, I mean how you do it. We need to teach our residents the importance of that. The other thing residents need to understand is how to be good citizens in their communities. You know, there's something that I see in a lot of young physicians now, coming out—they're arrogant and they're confrontational, and they piss everybody off;

and then they can't get anything done. They've got to learn not to go in with the attitude that the world owes them a living. I see that attitude enough so that it disturbs me. I don't know why it is. Well, number one, it's youth—youthful exuberance, I guess. It just takes a while to get that experience. If they see a problem that needs fixing in a community, rather than going in and working with the people, and convincing them, a lot of times they will appear before the county commissioners as "experts." They need to learn first how to be good citizens. They need to accept the nursing home patients, and do the things in the community that are necessary. Many of them now just don't want to go to nursing homes and that kind of thing, and the nursing homes are having to contract with physicians that do this for a living all around, and it's just not the same as if you had your own patients in the nursing home.

Some of Jane McCaleb's ideas on education echo Frank Leak's. But her major concern for primary care training follows her main programmatic concern: how evidence-based medicine can be translated into organizational programs. Here, her ideas for Northampton and Halifax Counties bear some resemblance to those that Sidney Garfield implemented more than 30 years ago in Oakland, California. But those familiar with "community-oriented primary care" will also recognize a lot of COPC in what Jane is describing.

Jane offers a real-life example of how she thinks clinical practice and COPC can be joined in a seamless program. She explains that it's a mainly a matter of organization or, as she puts it, "team building."

It's so hard as a clinician to balance all the things you have to do. The patient comes in, you've got to deal with whatever the presenting complaint is, then with their chronic illnesses, and then prevention; it is a very big plate to deal with. What I struggle with is how to you build teams that can make all that happen. The biggest concern I have, and what I'm struggling with in our organization, is making it all happen without the physician always being aware of it.

For example, we have an immunization program for our children. And we've attained a 99% immunization rate for our children under five. Our program is based on the concept that you don't even teach the doctors and mid-levels the immunization schedule; you teach it to the nurses. The nurses are then the authorities on who needs an immunization when, how to give it, how to document it, how to order it, and so on. So the system runs on the nurses' understanding of immunization.

We're going to try the same thing with breast cancer, build a program in which breast cancer screening does not need physician input to make it happen. You will, of course, need a physician to do a breast exam. But you

start with the front desk, where the team member there takes note that the patient is between age 50 and 75 but is not in the mammogram tracking system. The nurse then gets the patient into the system, schedules the mammogram and the breast exam. And all the doctor does is walk in and do the breast exam. Since the most highly trained providers of care are then providing only a technical component for the breast cancer program, they can now focus on the diabetes, and the cold, without having to stop and think, "Do I need to do a mammogram and a Pap smear?" Our plan is to develop systems that assure that the patient gets the best care but assign someone other than the most highly trained person to make sure it happens. I can train an LPN and a medical records clerk to run a breast cancer-screening program. (Now, obviously, this is for an asymptomatic woman, not for a patient with a lump.) I'm talking about preventive care here, which is something that has to be delivered to *all* the patients. It's a level of care that I think of differently than disease management. Disease management in primary care is a matter of putting the right team together: someone who can educate the patient—and that might be a nurse, who specializes in diabetes, who has a higher level of training than the person who does the screening—and then those who will treat the patient (a pharmacist and a physician). But all of these team members share common goals. And then, finally, you get to the most difficult patients, the ones who have social problems and other things where they really need case management—by someone working with the family, getting the situation together. And in those cases, the physician, who is at the very top level in terms of training, is really less important. It's in that middle piece—the disease management piece—where the physician is most critical. That's where the physician must understand how he fits into that system, and makes it work.

I don't know how medical students and residents come to understand this. It's organization. I don't know how it gets covered in medical education. I don't get people coming in here who understand it. I think the question is, "How do you build leadership in physicians, and how do you shape physician behavior?" In the past the assumption has been that physicians would control each other. Well, that never worked. I mean, there was no real peer pressure, no real peer control. Then the line was... "Nobody wants the government, we're afraid of socialized medicine, so let's have business step in and control it." Well, then managed care starts to shape medicine, and that doesn't seem the best way to go either. Yet it's not as though physicians necessarily have a better answer.

Are you familiar with Donald Berwick and total quality management?³ Berwick has looked at the industrial model of total quality management and how you can

apply that to health care systems—not just hospitals but office-based practice, too. Berwick has probably done the most on the question of how you make seamless systems where the physician is just one person on the production line, so to speak, who performs certain functions, but who—just like the radiologist who reads the mammogram—is part of producing a bigger product.

But I'm just a baby at this, thinking through it. I'd like to do it better in our practice. Berwick's whole thing is data driven: any system can be measured and you can measure variation and determine by the variation that's within the reasonable area of probability, or whether it's a random event—in other words, is our problem a particular person screwing up, or is this a system screw-up? That is an attractive way to look at it because it appeals to the scientific model, the notion that things are measurable, that you can improve systems, and that there are certain ways to do that. But I'm no expert on it. I just sort of know it conceptually.

When Frank Leak told me that he had worked long hours for too many years to become heavily involved in community medicine projects, he added: "But I did do a lot of politics." Indeed.

I supported organized medicine, was a member of the AMA and the state medical society, but I was never an officer in any of that. I directed my activities more to the Academy of Family Practice. I did that because in those days there was a lot of resistance to a family practice residency. Family practice really had to fight for its existence, and it still does. The academic medical world was brought to accept it kicking and screaming. I was right in the thick of that experience at Duke (when they wanted to end that residency). So my main involvement was with the Academy of Family Practice and the American Academy. I didn't do much on a national level, but on the state level I did quite a bit.

I was made the legislative director for the Academy. My job was to talk to the legislators. And every time I had a day off I'd go up to the legislature and try to see one of them. I found out pretty quickly that the main issue for the legislators is money—it doesn't take much, but you've got to have a little bit. So I got the Academy to start a PAC, called "FAMPAC." We didn't have a lot of money, but we'd give a hundred dollars here and a hundred dollars there to a campaign fund, and that was a big help. And then we hired a lobbyist, and I would go with the lobbyist to talk with these people. He represented a lot of groups. He certainly couldn't have made a living representing us, I'll tell you that. But hiring a lobbyist helped get me in the doors.

One of the bigger things that happened—this was

around 1985—was the medical malpractice issue that affected about 350 family doctors in the state who did obstetrics. They were mostly in the rural areas or on the faculties of the residency programs. There weren't many in the metropolitan areas. Our malpractice premium was—I can't remember exactly—something like \$2,000 a year. We were insured with the Medical Mutual Insurance Company of North Carolina, which was our physician-owned system. The only other insurance company doing medical malpractice in the state was St. Paul. Well, all of a sudden, Medical Mutual said they wouldn't be able to insure family doctors for obstetrics any longer unless they paid, I think it was something like \$20,000. So the premium went from \$2,000 to \$20,000. Well, you know that if you're doing 50 to 100 deliveries a year, you can't afford to stay in business paying that kind of premium. I don't remember the numbers exactly—how much a family doctor charged for a delivery—I'm just saying that it was an impossible situation. At the same time, St. Paul put a moratorium on new policies for family doctors—I don't know why they did it at that time; I guess it was just to keep us from coming over there. So since we couldn't change insurers we were pretty much locked in.

Well, almost overnight, of those 350 family doctors who were doing obstetrics in rural areas—and in most of those places they were the only ones doing obstetrics—about 300 of them stopped delivering babies. That's really astounding, but they did, they stopped. We (our group in Clinton) kept on. But finally, Doug Henley and I (Doug was president of the Academy; I was the legislative chair) thought of this idea: the ROCI, Rural Obstetrics Care Incentive Act. We had that bill introduced in the Legislature during the short session. Now a new bill in the short session is a tough thing to get done. But it passed. And it paid part of the malpractice premium for obstetrics for all of the doctors in rural North Carolina, including rural obstetricians (although there weren't many of those). For years it did that. The problem was that it only stopped the bleeding. The family doctors who stayed in obstetrics continued on, but not too many of the others, those that had stopped, ever came back. I guess they got to like their night's sleep, and they weren't making that much from obstetrics anyway, so they just decided not to go back to it.

I also served on the Blue Cross Blue Shield board of trustees for a few years until I was kicked off along with all of the rest of the doctors and hospital administrators, you know, when they were trying to take it private. That was quite a time. We fought it, but lost. We had fought it one other time and won. The second time around they got us. So those were the kinds of activities I was involved in.

Three years ago Harvey Estes, then head of the North

Carolina Medical Society Foundation, wanted to retire and asked Frank Leak if he would be interested in replacing him.

That change was great for me because it took me down from an 85-hour week to a 40-hour week. We bought a condominium in Raleigh. And I did that job full-time for a couple of years, until last January, when Harvey's son, John, took it over, and he does it now.

Mostly we ran something called the Community Practitioner Program. We had a grant from the Kate B. Reynolds Foundation, and our job was to recruit and locate primary care practitioners—nurse practitioners, too—in the rural communities of North Carolina. Primarily we did it by assisting in the repayment of their education loans.

Harvey had tried a lot of different things right at first. But finally he began working very closely with Jim Bernstein [then chief of the NC Office of Rural Health Services]. The Office of Rural Health Services had three people who were mainly involved in recruitment and doctor placement. We would meet every week—every Monday morning we would have a two-hour meeting with Jim and Burnie Patterson [also then on the staff of the Office of Rural Health Services, Burnie now works as Jane McCaleb's administrator partner at Roanoke-Amaranth] and all that group, and we'd discuss the parts of the state where we could help, and what the issues were, and who we had recruited, and who their recruiters had found. And whenever there was a situation where you could use the Federal money (the National Health Service Corps money, which was the best) we used that; and where the state money (which was second best) seemed to fit, we used it. And then we backed them up with our money, which was third best.

I wanted to know how well we were doing, so I gathered the names of all the people we had assisted and sent them a questionnaire. Our program worked like this: We paid them twenty quarterly payments—that was over a five-year period. If a doctor didn't like where he was, he just packed up and left. He didn't owe us the money back, and we didn't owe him any more money. But what that assistance did was to pretty much situate that doctor in that community for five years. By that time, I think in most cases, his children had friends, his wife and he had ties to that community. The other thing is that 70 percent of the primary care practitioners that we helped over that period of time, not just doctors but PAs and nurse practitioners, too, 70 percent are still in those communities. And that's a pretty good deal.

We were similar to the National Health Service Corps in our criteria except that ours were looser. We could bend more easily. Jim had to use the strict criteria that were handed down—by the federal or the state government, but we could say, "Let's make it fit." We all

agreed—Jim and Burnie and we—that if a situation met our criteria for need but didn't meet all the dot-the-i's and cross-the-t's that were required to use the federal or state money, then we would use our money in that case. Mostly we put people in rural locations but we placed two or three people in public primary care clinics in Winston-Salem, in Charlotte, one in Raleigh, a couple in Gastonia, so we had a few that went to metropolitan areas—in those types of clinics.

Frank Leak remembers that toward the end of his practice career, just before his retirement and move to Raleigh, the town of Clinton experienced a gain in primary care doctors. This meant that although the long hours continued, the pace turned less harried.

We had sort of an unwritten rule that when you reached 60 you didn't have to pull night call—but when I turned 60 the young doctors said, "Oh please, let's waive that rule," so to speak—they said they were short of help—and so I worked out a situation where when I was on night call I had the next day off, and they paid me what I ordinarily would make for the next day. I guess that was a privilege of seniority. But even with that, it was time for me to quit. I did it for two or three years but I needed to cut down on those hours. You know, when you get up at six-thirty and hit the floor at seven and work straight through that day and night and all the next day until seven the next night, about three or four in the afternoon your mind turns to jelly. You're a vegetable by that time. But it was necessary, and I had to do it.

Jane McCaleb isn't contemplating retirement just yet. She continues as a main lynchpin of her organization. I asked her to enumerate the staff and where they work:

In all we have three internists, three family practitioners, a pediatrician, a general surgeon who functions as a general practitioner, one geriatric nurse practitioner, two physician assistants, two family nurse practitioners, and a PharmD, and then the administrative structure. Altogether we have close to 90 employees. The clinic locations are Rich Square—that's south of here about 15 miles; then there's Jackson, which was the original location; then in Roanoke Rapids, near the hospital, we have an office; then there is the Lake Gaston office, which is located in Littleton—the office is right on the Halifax-Warren County line; and then Hollister, which is southwest of Roanoke Rapids about 25 miles—it's down toward Louisburg but still in Halifax County. Then I also work as medical director at the Halifax County Health Department, and we have a family physician who is employed by us but is contracted by the health department, and she works there full time. So

that's yet another location where we provide the clinical service, although we don't run the administrative side. And our pediatrician goes there one half day a week. Plus, we actually have obstetricians in the community (they're in private practice, not in our group, but they work for us, and we contract with the health department for their services). And then there's the nursing home next door, which we sold, but we still have many patients over there; probably 75 percent of the patients are ours.

I live up the road, two minutes away, but I'm getting ready to move to Roanoke Rapids. Burnie Patterson

[administrator] lives in Raleigh and commutes here. If he has a late night meeting up this way, his sister has a place on the lake [Gaston] and he stays there. Or, like last night, we ended up in Hollister, where it was an hour to his house and an hour to my house—we're spread that far. So we both left about nine-thirty and probably got home at about the same time. Our pharmacist lives in Elizabeth City, and our chief financial officer drives from little Washington. So those guys are driving over an hour a day. They love the job! What can I say? You give people the right job and they'll come.

NOTES

- 1 Donald L. Madison, *Starting Out in Rural Practice*. Chapel Hill, NC: Department of Social and Administrative Medicine, University of North Carolina at Chapel Hill, 1980.
- 2 There are several published accounts of the program of the Tufts-Delta Health Center, which opened in 1966. An early one is H. Jack Geiger, "A Health Center in Mississippi—A Case Study in Social Medicine," in Lawrence Corey, Steven E. Saltman, and Michael F. Epstein (editors), *Medicine in a Changing Society*. Saint Louis: CV Mosby, 1972. pp 157-167.
- 3 Donald Berwick, a Boston area pediatrician and clinical professor of health care policy at Harvard Medical School, is president and CEO of the Institute for Health Care Improvement. His major work on total quality improvement is Donald M. Berwick, A. Blanton Godfrey, and Jane Roessner, *Curing Health Care: New Strategies For Quality Improvement*. San Francisco: Jossey-Bass, Inc., 1990.