Primary Care
Building a Model for the New Medical Environment

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IN 1975, I WAS APPOINTED CHAIR of a committee of the Institute of Medicine of the National Academy of Sciences (IOM-NAS) in Washington, DC, to study and recommend a national policy on training and support of primary care practitioners. The Committee was created in response to the national shortage of generalist physicians, and after years of discussion of the importance of primary healthcare and of various ways to correct the shortage. After months of deliberation and study the Committee delivered its final report in May, 1978.[1]

Most of the report was centered on the definition of "primary healthcare." Various practitioner groups disagreed about which of them provided "true" primary care: Family medicine educators and practitioners felt they were the only valid claimants to this distinction, while internists and pediatricians considered themselves equally qualified. Obstetrician-gynecologists felt that they were primary care providers for women, and so on. This widespread proprietary enthusiasm may have been fed, in part, by a vision of increased federal funding for building up the supply of primary care providers.

In the end, the Committee determined that no specific specialty group can lay exclusive claim to the provision of primary healthcare—though some specialties, such as family medicine, internal medicine, and pediatrics are far more likely to do so. The Committee felt that it is the *spectrum of services* provided to the patient, not the training of the provider, that defines primary healthcare.

The report identified five attributes as essential to primary care practice: *accessibility, comprehensiveness, coordination, continuity,* and *accountability*. Moreover, it set rigorous standards for determining the presence of each of these attributes. In the minds of most of the Committee members, probably no existing clinical entity could claim to comply with all. Nevertheless, the standards were established in the hope that they would serve as the goal toward which all primary care providers would strive.

The report included a checklist (see Table) to be used in judging compliance or noncompliance of a given clinical site. For each of the five attributes the checklist gave a very specific set of benchmarks for compliance. Access, for example, must be around the clock, every day, with waiting times for scheduled appointments no longer than one half hour. The checklist placed heavy emphasis on patient service and on proactive attention to prevention, education, and provider availability.

In addition to the chapters defining primary healthcare, the report included a number of policy recommendations relating to payment for services, federal support for training programs, and so forth.

What Has Happened Since the Report?

It was the Committee's hope that the report would spur primary care clinics to augment and expand their services to meet the proposed high standards; that purchasers of services would choose the improved services, thus rewarding compliance; and that the value and quality of primary care on a national level would be elevated as a result.

Looking back over the quarter-century since its publication, we can see that these objectives were not achieved. No clinical entities claim to be in compliance with the high standards of the report, and I know of none that are even trying to be. The provision of primary care seems to be as individual and variable in 2002 as in 1978. This does not mean that good primary care practitioners are not available, or that most patients are not well served. The report was

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simply ignored! On the positive side, the report did serve as a tool for determining the eligibility of primary care residencies applying for federal training grants, and a number of its policy recommendations were implemented.

In retrospect, there are good reasons that the standards for primary care integrated into the report's checklist were not recognized. First, the standards were extremely high, perhaps impossible to attain. Second, achieving the standards would entail higher costs without accompanying increases in payment. Third, full implementation of these recommendations would require that providers place themselves on a level playing field with the patient, recognizing the patient as a fully equal partner, a step which many physicians are not prepared to take. Since publication of the report, a number of "new realities" have emerged, which make accomplishment of the patient-centered primary care envisioned in the report even more difficult.

New Realities

Changing demographics and expectations of practitioners: Perhaps the most important development is the increasing number of women choosing medicine as a career. This has had many salutary effects on the profession, but it remains a fact that the female physician is often a wife and mother as well, and, as such, wants the advantages of her profession without foregoing the pleasures and responsibilities of parenthood. This brings with it the need for control over time, particularly the time on and off duty. Part-time practice and sharing of a single practice among several part-time physicians are now frequent occurrences.

In addition, many male physicians have recognized that many of their counterparts have ignored important responsibilities of child rearing, to the detriment of offspring and marriages. These physicians are demanding time off after the birth of a child, to assist in the increased load of home responsibilities, and more predictable time off for family activities.

Salaried positions, in an organization large enough to allow sharing of patient care responsibilities with other employed physicians, are frequently used to achieve the above objectives. The fact that salaried physicians share responsibility for patient services with others rather than assuming total responsibility as the owner or sole practitioner, is also relevant. Salaried practitioners are more likely to accept the standards established by the owner, and less likely to institute changes. They are also less likely to feel the full responsibility of meeting patient needs, since they share this responsibility with the owner and other salaried colleagues.

Nonphysician Providers: Physician assistants and nurse practitioners have added much to the availability and flexibility of services to patients, and their beneficial role is clearly established. Their role in primary care practices varies from semi-independent practitioner to true assistant. The level of responsibility of the physician working with such providers may be obscured by their presence.

Hospitalists: Primary care physicians have always had the problem of divided responsibility among the scheduled, nonemergency patients in the office, the unscheduled emergency that appears in the emergency room, and the acutely ill patient needing hospital care. In other countries, these responsibilities are shared between primary care physicians and hospital-based specialists, but in the United States the expectation has been that primary care physicians will assume the care of most of their own patients in all settings. The advent of the hospitalist in this country has changed the picture, allowing the primary care physician to choose one or the other mode of practice. The new addition has been a popular one and has greatly improved the predictability of office schedules, as well as the life of the primary care physician. Again, the cost is that of shared responsibility for the care of the patient.

Competition for Available Payment Dollars: Each month brings with it a new development in healthcare, a new (and probably more expensive) medication, a new imaging device, a new surgical procedure, etc. Each of these increases the cost of healthcare, at a time when payment sources are stressed and unwilling to provide more. As a result, each new development increases the pressure for cost conservation through all other segments of the system. In the primary care sector, the pressure shows up as a demand to see and treat larger numbers of patients in the time available.

The Liability Climate and Fear of Mistakes: Not only do patients and the public expect uniformly favorable outcomes, but so do physicians! All are aware that some aggressive attorneys are more than willing to exploit an unavoidable and unexpected bad outcome of appropriate treatment, in the hope that a jury will award a huge settlement—to be shared with the attorney. Human error is inevitable, and medical decision-making is increasingly complex and difficult. There is little wonder that some physicians are afraid to venture beyond the bounds of the clear and familiar. But conscientious primary care providers must always skirt the bounds of their knowledge and skill limits: Is this an unusual presentation of a common problem, or an unusual and serious illness requiring referral? Shall I treat this seemingly simple ankle sprain, knowing that an obscure fracture might be present, leading to a poor outcome and disability, or will I immediately refer to an orthopaedic surgeon? There was a time when uncertainty was accepted as a normal feature of practice, understood by both patient and provider.

Most family physicians have dropped obstetrical and surgical care, once a major part of their repertoire, from the

Table. Selected items from the IOM/NAS Primary Care Checklist (13 of 39 items)

Accessibility:

Is access to primary care services available 24 hours a day, seven days a week?

Can most (90%) of appropriate requests for routine appointments, such as preventive exams, be met within one week?

Is the waiting time for most (90%) of scheduled appointments less than one half hour?

Is simple, understandable information provided to patients about fees, billing procedures, scheduling of appointments, contacting the unit after hours, and grievance procedures?

Are patients encouraged to ask questions about their illness and their care, to discuss their health problems freely, and to review their records, if desired?

Comprehensiveness:

Within the patient population served, is the practice unit willing to handle, without referral, over 90% of problems arising in this population?

Are appropriate primary and secondary preventive measures used for those patients at risk?

Are the practitioners in the unit willing to admit and care for patients in nursing homes?

Are the practitioners in the unit willing, if appropriate, to visit the patient at home?

Coordination:

Do the practitioners furnish pertinent information to other providers serving the patient, actively seek relevant feedback from consultants and others, and serve as the patient's ombudsmen in contacts with other providers?

Continuity:

Can a patient who desires to do so make subsequent appointments with the same provider?

Are complete records maintained in a form that is easily retrievable and accessible?

Accountability:

Is there a system for regular review of the quality of the process of medical care (for example, reviews for completeness of therapeutic programs and follow-up of acute illnesses)?

Is there a system for assessment of the outcomes of care offered (for example, outcome of treatment of specific illnesses; review of level of satisfaction of patients with the services provided; review of compliance with recommendations)?

spectrum of offered services, in large part because of the litigious climate and the disastrous professional, personal, and financial consequences of a wrong medical decision.

The problem is far more widespread than these obvious obstetrical and surgical examples. While fear of liability is a part of the problem, personal unwillingness to face mistakes and peer disapproval are equally important. Some young physicians are unable to tolerate the constant uncertainty of medical decisions at the "front line" of primary care practice, and they elect nonclinical careers such as public health, medical research, or management.

Direct Patient Advertising: Recent pharmaceutical and specialty advertising has added its impact to the role of the primary care practitioner. Advertisements now imply that the patient's own physician is not sufficiently well informed or experienced to choose the most recent and advanced drug therapy or medical treatment; they invite patients to become "informed consumers" through researching such sources as the Internet and either to self-refer themselves directly to a specialist or to challenge the primary care physician to make the required referral. News reporting of the latest medical developments frequently carries the same implication.

Climate Created by the "New Realities"

The message of the IOM study was that the primary care provider should always be available, anticipate problems, and be a responsible and constant advocate for the health and well-being of the patient. All of the above factors tend to dilute or obscure this clear and direct responsibility. This may not be an inevitable result, but the drift is unmistakable.

Physicians are more likely to be employed, rather than sole proprietors and leaders of a practice. Practice standards are generally set by the owner, who often places financial return above patient services in priority. Standards for numbers of patients seen and time allowed per patient are

common, while standards for quality of the patient encounter are not. Hospital care is separated from outpatient care. Responsibility is shared among a number of providers, who pass care of the patient from one to another as they cover various shifts. Information is rarely transmitted in sufficient detail to ensure that the second or third provider in the chain is as familiar with the details of the patient's history and relationships as the first. The patient and family wonder about authority and accountability, and misunderstandings and mistrust are more likely to occur.

True provider-patient bonding may never occur. The patient may never see the primary physician as an informed friend and ally in a complex and frightening medical jungle. Instead, a perception may arise that primary care is a perfunctory and scarcely important segment of medical care, carried out by a series of shift workers, no more important than many other technicians who carry out specific tasks. Specialists may "rule out" specific diseases, such as cancer, but the patient may be left with unexplained vague symptoms, with no single professional confidante who can hear these complaints and help decide whether to push for further clarity, or to "learn to live with it."

Is Primary Healthcare Really Necessary? Is the IOM-NAS Definition Still Relevant?

I believe that primary healthcare is even more necessary now than in 1978, when the Committee report appeared. Medicine is more complex, more expensive, and potentially more prone to mistakes and harm. Both the patient and the medical care system need the services anticipated in the IOM-NAS report, the patient for wellbeing and peace of mind, and the system for cost conservation.

I am continually impressed with the number of people who pursue medical "will-of-the-wisps" or seek unnecessary tests and treatments because they lack responsible advice. This is both dangerous and expensive. As a retired physician, I am frequently consulted by friends who complain that they have no one to turn to for advice. They do not have a primary care provider, or they do not know the provider assigned to them, and do not feel that useful help and information can be obtained from this source.

The definition of primary healthcare set forth in the IOM-NAS report is also just as applicable as in the past. Patients need a source of dependable advice, help in anticipating problems, preventive advice, guidance to appropriate and cost-conservative treatment when appropriate, and guidance in seeking the best specific help when required. The current system does not provide such services—with notable exceptions.

In many small communities, primary care providers still provide such services, but they are often overworked and underpaid for their efforts. In most large, complex systems, one or a few such providers emerge; they usually become overwhelmed with demands, and gain few rewards beyond their satisfaction from serving their patients well.

This is a discouraging and perplexing situation: good primary healthcare is highly important and necessary, for both the patient and the system; at the same time the system and the existing expectations of both professionals and the public are making it more and more difficult to provide. Who can fault the young female physician who wishes to have children and watch them develop with maternal presence and guidance? Who can criticize the young male physician who wishes to watch his son play baseball? If the primary care physician works with a hospitalist, isn't the resulting care more efficient and the hospitalized patient better served?

Yes, all these new realities are just that—realities! They must be acknowledged and accommodated in the system of the future. What is required is a total rethinking of the entire system, an immense, complex, and challenging task!

A New Primary Care Model

If primary care providers are to offer the continuous, comprehensive services called for in the IOM-NAS definition of primary healthcare and still preserve a reasonably normal life for themselves, I see the need for three fundamental changes in primary care practice: we need to cultivate true team practice, create a paperless, computer-based medical records system, and revise the system of incentives and rewards.

Team Practice and Practice Standards: Current realities dictate that primary care providers must have regular hours of duty and predictable time away from these responsibilities. It follows that others must be available to provide services when the original provider is unavailable. This concept is regularly recognized in practice when partners or a coverage group agree to substitute for other members of the group when they are off duty, but most such groups practice not as a true team but as individuals sharing facilities and support services.

If primary healthcare responsibilities are jointly assumed by such a group, and all are dedicated to meeting the standards implied by the definition, then all members must agree to practice the same way. Most patients consider their own original provider as their contact person within such a group, and they accept that when this person is off duty or unavailable, another team member will provide the needed services. Patients must have the assurance that this other team member meets the same standards as their own provider.

For such a system to function properly, the team must meet regularly as a whole, agree on procedures and standards, and know each other's strengths and weaknesses. A team

leader or medical director will probably be required, with administrative team members a full part of the team. There must be available to all both a rational, evidence-based, and unified set of practice standards and a reliable and consistent framework of patient information. Together, the team must ensure that all patients receive the services implied in the IOM-NAS Definition and Checklist.

There are many difficult problems to be solved in the achievement of this change. Old habits and mindsets must be discarded and new ones adopted. Clinicians prefer to work as individuals, but if a single individual cannot provide the coverage required, then the group must do so, under a common set of standards and requirements, reflecting the best recognized practices. In the interest of clarity and patient understanding, individual practitioner preferences should bow to these standards and group decisions. The team should also bring in other professionals with special skills, such as patient educators, to help them do their work better or more efficiently.

Computer-Based, Paperless Medical Records: For such a team to function, patient records must be available at all times and in a number of locations. Each member of the team must have access to information recorded by other members, as soon as entered, and in a standard format. The only practical way to accomplish this is to require that all records be recorded and stored in digital form in a computer-based system. Privacy and confidentiality concerns can be answered through proper technical specifications and safeguards, which have already been mandated under the Health Insurance Portability and Accountability Act (HIPAA), passed in 1996 but not yet fully implemented.

Such a system would avoid the heavy costs of handling and storing paper records and would also enable the team to document compliance with standards and to initiate appropriate patient safety measures. Newer developments in storage and access technology may enable a practice to engage an outside service provider to provide data organization, storage, and access, thus avoiding the need to invest in expensive and labor-intensive equipment on site.

These changes will also require change in the physician's mindset. In his widely quoted address, *Escape Fire*,[2] Donald Berwick points out that exchange of information is the real "treatment" in medical care, and recommends the abandonment of the traditional office visit as the primary site of information acquisition and exchange. He advocates that the medical record be available to the patient and that the patient be a full partner in its review and validation. While most physicians consider the medical record as their own province, there is much to be said for allowing the patient to have all available information and to share responsibility for its accuracy and completeness. Those who have tried the concept indicate that it may also prevent misunderstanding and liability actions.

Electronic communication with patients, access to recommended educational resources, and use of e-mail for clinical exchange must also be considered. E-mail is already a major method of communication in many practices and is fast and convenient for provider and patient. The privacy and confidentiality concerns that currently exist should be removed when HIPAA standards are implemented.

Changes in Payment System: The most difficult problem to be solved is a change in the payment system. As most primary care providers can attest, there is no mechanism for being paid for most preventive measures, or for getting to know the patient and his or her background. Payment is for specific, defined actions, with the incentives always pitched toward doing more, even when a sympathetic conversation or a recommendation to do nothing may be the wisest course. As a result, the most careful and concerned clinicians may be branded as "not cost-effective."

The trick is to devise an incentive system that will value true concern for and service to the patient rather than volume of services. The components within the IOM checklist might afford us a tool for this task. A scoring system could be devised by which a clinic is assigned a quantitative score, on the basis of meeting the requirements in the checklist. An "A" rating would entitle full payment for services, while a "B" rating would lower payment to 80%, etc. However, such a system would still tend to value specific services more than more abstract services, such as counseling an anxious patient.

A capitation system, such as that long utilized for general practitioners in Great Britain, has advantages, but the British have found it necessary to reward certain specific actions, such as preventive interventions, by extra payments, to insure that they are accomplished. It is unfortunate that the inherent inertia or lack of responsibility of some few individuals requires the imposition of such measures, but this is probably inevitable. A combination of a capitation system with a preferential payment based on compliance with a list of expected services and strict sanctions for failure to deliver such services may be the only answer.

The new payment system must allow the primary care physician to approach the patient without the expectation of "a new patient every twelve minutes." It must reward availability and willingness to problem-solve without requiring a specific examination or treatment. It must allow delegation of tasks to others within the clinical team and reward each member for their contribution.

Summary

A glance at the above list of requirements for a new model of primary care is enough to make most of us throw up our hands in despair! Any one of the several requirements

above will be difficult to attain. The current payment system is largely based on Medicare specifications from 1965, and its faults have been obvious from the beginning. It creates incentives that lead to overemphasis on new technologies and to runaway costs. There is a growing concern that medical care is not meeting the needs of many in our society, and that we are not getting our money's worth. Large payer groups are beginning to think of alternatives, and demands for new solutions are growing.

I am convinced that salary level is not the only, or even the most powerful, incentive in motivating most primary healthcare providers. They want an adequate, equitable, and comfortable reward for their services, and many would accept a lower level of salary in exchange for an opportunity to spend more time with—and do what they know is best for—their patients, in combination with reasonable hours of duty, recognition of their role, and system support.

Is there anything a single provider or group of providers can do while we await payment reform? I believe so, but it must be realized that it will be difficult and might not help the physician as much as it helps the patient.

Working with currently available tools, the primary care physician who wishes to move reform forward should try to implement the other two major changes. First, examine the practice unit, and make it a true team practice, as discussed above, meeting as many of the standards of the IOM-NAS report and checklist as possible. Second, examine the medical records generated by the practice unit and establish a computer-based system that can generate lab results, summaries, etc., as well as document, analyze, and improve the quality of the practice.

I believe that records should be shared freely with patients, and patients should routinely be asked to read and validate them. Legally, they already have the right of access to this information. Why not ask them to share the responsibility for accuracy and completeness? It will probably make us more thoughtful about what we record. Certainly, we should freely share clinical information with patients, welcome their questions and input, and give them relevant information to enlarge their knowledge.

These steps may not be a complete answer, but they will vastly improve the care given to patients. This should be justification enough to begin the process, while waiting for reform of the payment system that will rationalize the process. I have always felt that most physicians are primarily motivated to serve their patients in the best possible way. I hope that I am right!

REFERENCES

1 Report of a Study: A Manpower Policy for Primary Healthcare. National Academy of Sciences, Washington, DC. May, 1978. 106 pages.

2 Berwick DW. Escape Fire. Plenary Address, Eleventh Annual Forum on Quality Improvement in Healthcare. New Orleans, LA, December 9, 1999.