

## Innovations in Access to Care: A Patient-Centered Approach

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To receive health care, patients with nonemergent problems must gain access to a complex, interdependent ambulatory care system currently structured around the conventional office appointment model. The system does not effectively accommodate diverse patient needs and preferences, contributing to both overuse and underuse of health care resources. A patient-centered access model would help patients secure appropriate and preferred medical assistance when and where it is needed. Characteristics of patient-centered access include availability, appropriateness, preference, and timeliness. One or more of these characteristics often is missing in patients' health care experiences.

The goal of this paper is to present patient-centered access as an integrated concept and philosophy to provide context for

evaluating specific access initiatives. On the basis of an assessment of existing literature, 3 organizing principles of patient-centered access are proposed and discussed: work at the high end of expertise; align care with need and preference; and serve when service is needed. Patient-centered access warrants serious consideration, given the stakes involved for patients, providers, and payers. Few concepts support all 6 of the Institute of Medicine's aims for the 21st century: safety, effectiveness, patient-centeredness, timeliness, efficiency, and equitability. Patient-centered access is such a concept.

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The practical, operational issues of access to medical care services are pivotal to all patients. Unlike other marketplaces, where the consumer is the decision maker, employers, payers, and providers—rather than patients—primarily influence the way the health care system functions. Patients often find themselves on the outside of the system, such as when employers switch health plans and patients must scramble for new providers. Some consumers are leaving the “mainstream” system to obtain various medical services, for example, using concierge physicians who charge annual fees for upscale service, overseas hospitals for surgery, and walk-in radiology screening services. The fact that patients and providers are leaving the system threatens to make health care access and delivery even more difficult for those who remain (1–7).

Business school students learn that consumers eventually get what they want; who will give it to them and when are the unknowns. Although health care had been able in the past to function with little attention to consumer preference, the diffusion of consumer forces into health care is giving momentum to this “iron law of consumerism.” Given the central role of access in health care—nothing can happen without it—providers have good reason to consider access from the patient's perspective.

This article presents patient-centered access as a philosophy and integrated concept. We define patient-centered access, identify its primary characteristics, discuss its key principles, and consider its future evolution. Parts of this article will strike a familiar cord. What is different is a comprehensive discussion of access innovation from the patient's perspective. Related literature usually focuses on a specific access initiative, for example, e-mail communications with patients. All such initiatives are better understood in the broader context of overall system access.

### PATIENT-CENTERED ACCESS

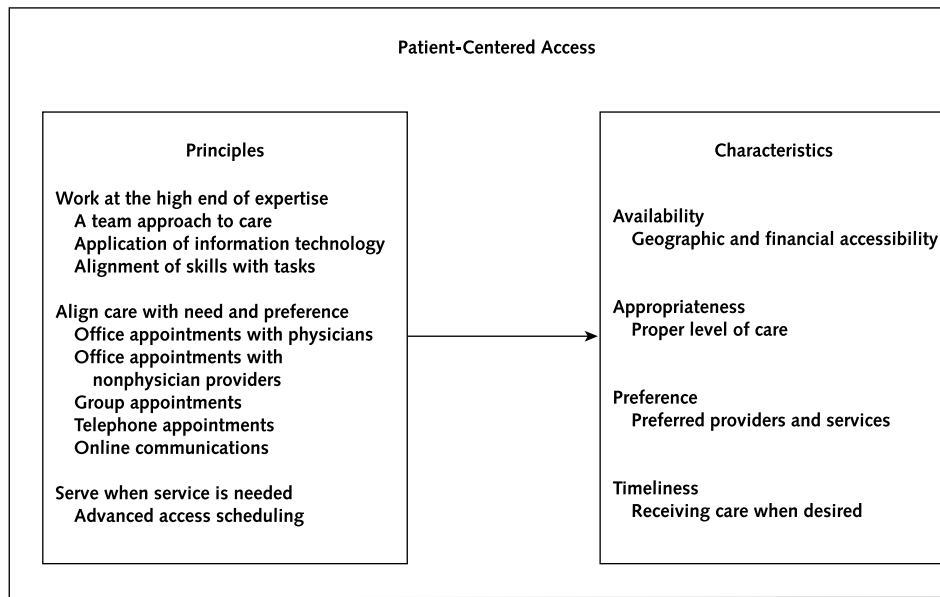
Patient-centered access refers to a patient's ability to secure appropriate and preferred medical assistance when and where it is needed. Characteristics of patient-centered access include availability, appropriateness, preference, and timeliness. *Availability* involves fundamental access: can a patient obtain a medical service? Availability is primarily a function of offering a needed service in the patient's geographic area and within the patient's financial means. At least 1 of 7 Americans is uninsured, and the adverse effects on personal health and the health care system are well documented (8).

*Appropriateness* involves obtaining the proper level of care. Appropriateness is complicated by the potential discrepancy between what a patient wants and what is medically indicated. Today's patients have far more access to medical information via the Internet and media. However, patients often lack the knowledge with which to filter and interpret this information. Providers influenced by patient pressure may facilitate inappropriate care, creating additional stress for an already overburdened system.

*Preference* concerns patient access to a preferred provider or specific medical service. Patients may base preferences on experience, the recommendations of others, physical proximity, or marketing messages (such as direct-to-consumer prescription drug advertising). The substantial market shift in recent years from health maintenance organizations to less restrictive preferred-provider organizations illustrates the salience of preference (9, 10).

*Timeliness* concerns receiving care when desired. Most medical services are inseparable from patients' physical presence. Access for inseparable services is complex because patients and providers must coordinate the time and location of the service. This need for coordination often creates a scenario in which patients are required to wait multiple

Figure. Implementing patient-centered access.



times: for the primary care appointment, in the medical office, and for specialty care or tests (11).

### PRINCIPLES OF PATIENT-CENTERED ACCESS

In "Crossing the Quality Chasm," the Institute of Medicine proposed 6 aims for improvement in the 21st century: safety, effectiveness, patient-centeredness, timeliness, efficiency, and equitability (12). Improving health care access supports each of these aims. A patient's ability to secure appropriate and preferred medical assistance when and where it is needed should enhance safety, effectiveness, and equity; will require efficiency; and reflects patient-centeredness and timeliness. Improving health care access is at the center of improving health care.

Enhancing access requires systemic thinking. The goals of patients, providers, and payers must be aligned. Providers that have succeeded in substantially improving access had to rebuild rather than fine-tune their service delivery system; they focused on changing dysfunctional habits and assumptions as well as on technical medical issues (13). As shown in the **Figure**, implementing patient-centered access requires embracing 3 principles: work at the high end of expertise; align care with need and preference; and serve when service is needed. In developing these principles, we conducted a comprehensive literature review from 1985 using the MEDLINE and Academic Health Reference Center databases and searching a targeted set of refereed medical journals.

#### Work at the High End of Expertise

Many assume that the labor-intensive nature of health care makes productivity gains difficult to realize. Physicians are not assembly-line workers. Regardless of technology, physicians still need to see patients and integrate history,

physical examination, test results, judgment born of experience, and specialized medical knowledge to create therapeutic plans. Nonetheless, health care productivity and access gains can be achieved by rethinking the process of who performs specific tasks and how.

Health care access can be improved (and cost of care decreased) when members of the health care team, including the patient, work *up* to their training, skills, and experience. When health care professionals consistently work below their level of expertise, scarce resources are wasted, care is more costly, boredom and frustration increase, and access is impaired. Specialist physicians should do less of what generalist physicians can do, generalist physicians should do less of what nonphysician providers can do, and nonphysician providers should do less of what nonclinical staff can do. Each caregiver also should do less of what appropriately instructed patients and families can do for themselves.

The application of information technology, team-provided care, and alignment of skills with tasks are necessary to implement this principle. Dr. Charles Burger's primary care practice in Bangor, Maine, illustrates these approaches. Electronic medical records, examination room terminals, computerized decision support, and e-mail patient communications facilitate nurse practitioners, registered nurses, medical assistants, and patients working at high rather than low levels of their expertise (14). For example, when patients call with a medical concern, receptionists use sophisticated triage software to determine whether to schedule an office visit, how soon and by whom the patient should be seen, and how much time the office visit will require (15).

The Mayo Clinic uses specially trained nonphysician

providers for diabetes management after a physician conducts the initial evaluation and creates the care plan. The nonphysician provider monitors the patient and involves the physician if the patient experiences problems. The patient sees the physician at least once every 2 years. Mayo compared the team-care model to the physician-care model in an internal study in 2000. Among the results was more timely access for patients.

Other research supports fuller use of nonphysician provider skills and training (16, 17). In 1 randomized clinical trial, researchers assigned 1316 patients to a primary care physician or a nurse practitioner. They found only minimal differences in health outcomes and patient satisfaction between the patient groups, although design and sampling issues limit generalizability (18, 19).

### Align Care with Need and Preference

The conventional office visit access model does not fully accommodate patient heterogeneity. The office visit model works best for patients who need to be seen in person and can be well served in the time allotted for the appointment. However, this model often results in *system overuse*, such as when a patient familiar to the physician makes an office visit only to ask several quickly answered questions, and *system underuse*, such as when a 20-minute appointment slot prevents the physician from covering all relevant issues with the patient. As family physician Gordon Moore commented: "One of the biggest mistakes in primary care isn't what we do to patients but what we omit" (20).

Studies show a relationship between shorter office visits and inappropriate prescribing (21), patient reluctance to ask questions (22), less attention to psychological concerns (23) and patient education (24, 25), and lower levels of patient confidence and coping (26). As Davidoff has written: "The sad truth is that our trillion-dollar medical care system seems to feel that time spent with patients is a luxury it simply can't afford" (27).

Diverse patient needs and preferences require a more flexible service delivery model that offers multiple entry paths into the practice. What might this system include in addition to the office visit with a physician? Each of the following access paths is being used in more practices.

### Office Appointments with Nonphysician Providers

The use of nonphysician providers as autonomous providers within physician-staffed medical practices is growing (28) because of the prevalence of chronic illness and pressure to control health care costs. The Balanced Budget Act of 1997 expanded direct Medicare reimbursement for physician assistants, nurse practitioners, and certified nurse-midwives to include all nonhospital sites and eliminated the requirement for physician involvement. Numerous states now mandate that private health care plans reimburse particular groups of nonphysician providers (28). One concern is an adequate supply of nonphysi-

cian providers (29); however, the number of persons graduating from nurse practitioner and physician assistant programs is increasing and supply seems to be meeting demand (30).

### Group Appointments with Care Team

Given the primacy of patient education in health care and the expense of one-on-one education, expanding the health care classroom beyond the examination room and allowing more time for complete discussion is a natural path. Group appointments are a promising approach. Patients attending these primarily educational sessions also can be examined or counseled privately and given prescriptions and referrals. Britt Smith, a family physician in Olympia, Washington, has used group visits as a proactive response to obese patients wanting diet drug prescriptions. Smith developed an evidence-based weight-loss program, used group meetings to communicate the information, and created a system for tracking the progress of participants (31).

Dr. John Scott, an early adopter of group visits at Kaiser Permanente, claims that 2 principal benefits are patients' willingness to ask questions that they might not ask in a personal office visit and patients' sharing personal experiences and helping one another (32). Literature on group visits includes reports on increased patient access, adherence, and satisfaction; improved health outcomes; fewer hospitalizations; reduced use of emergency department and specialist visits; improved overall practice efficiency; and, unfortunately, unresolved reimbursement and financial challenges, especially in fee-for-service practices (33–39).

Widespread adoption of group appointments in medical practices will require adequate reimbursement and patient acceptance (40). The latter will depend on identifying topics of high interest and effectively marketing the sessions to patients. Eventually, providers may write prescriptions for group sessions (38).

### Telephone Appointments

Establishing appointments for many patient-provider telephone conversations would improve the quality of the encounter and efficiency of the practice. Time would be reserved in the physician's schedule for telephone consultations, discussions would be less rushed and more thorough, and "telephone tag" would be minimized. Telephone appointments enable a patient who cannot leave work or who is not ambulatory to converse with a provider without using an office visit slot.

Telephone encounters are appropriate when a physician-patient relationship already exists and physical examination is unnecessary. Telephone appointments can reduce a patient's office visits and costs without degrading medical outcomes or patient satisfaction. They have been successfully used for monitoring such medical conditions

as depression (41, 42), asthma (43), and urinary tract infections (44).

Telephone appointments warrant payment if they encompass the basic encounter components of history, impression, diagnostic or therapeutic plan, and counseling or education. Knowledge and service are a physician's commodity and should be appropriately compensated regardless of the medium through which they are dispensed. Telephone appointments generally would be shorter and less expensive than office appointments. Current reimbursement limitations coupled with physician sensitivity to charging for this service discourage telephone visit innovation.

### **Online Communications**

The Internet is a communications medium with impressive convenience, speed, reach, information breadth and depth, and cost-efficiency benefits. The Internet extends the benefits of the practice to patients beyond the physical location of the office and its hours of operation. It can transform a traditionally inseparable service into a separable one. Providers and patients need not be present at the same place and time for communication to occur.

Research-based estimates of the number of Americans using the Internet for health information vary widely, probably because of differences in sampling and question phrasing. Two studies estimate that up to 80% of adults with Internet access search online for health information (45, 46). Another study estimates that approximately 40% of Internet users searched online for health information or advice during the previous year (47).

The percentage of medical practices with their own Web sites is growing, primarily for practice promotion and patient education (48). Providers can offer patients 4 types of online communication: 1) general information, such as a practice newsletter, recommended medical information sources, and preventive health guidance; 2) secured patient-specific information, such as all or parts of a patient's electronic medical record, test results, and self-care guidelines; 3) nonconsultative transactions, such as appointment requests and prescription refills; and 4) consultative transactions via e-mail.

As with other access paths into a medical practice, a principal issue for e-mail consultations is appropriate use. E-mail is properly used as an adjunctive channel for providers and patients to exchange nonsensitive information; e-mail is a poor medium to convey urgent information and is not a substitute for face-to-face encounters. Privacy standards mandated by the Health Insurance Portability and Accountability Act require that patient health information sent on the Internet be secure and encrypted. Medem and Relay Health are among Internet-based services that provide free encrypted online patient communication services to physicians (49).

Currently, patients are more interested in communi-

cating with physicians via e-mail than vice versa. One study reported that 90% of patients with e-mail access wanted to be able to communicate with their physicians online, and more than one third indicated a willingness to pay for it (50). A separate study found that 66% of respondents were interested in an e-mail visit for a simple medical problem and 58% for a chronic problem. Of those interested, 47% would be willing to substitute an e-mail appointment for an office visit if the co-pay were the same; 62% would be willing to substitute if the co-pay were lower (51).

Only 6% to 7% of patients have used e-mail to communicate with physicians, according to 2 recent studies (46, 47). Among the reasons physicians resist using e-mail with patients are preference for face-to-face communication, lack of reimbursement, confidentiality concerns, liability risks, fear of being inundated with patient e-mails, and out-of-state licensure issues (52).

Physician resistance to using e-mail with patients should decrease as risk-reduction guidelines are more widely disseminated, reimbursement issues are resolved, more third-party groups (including insurers) provide the online infrastructure, and more patients request the service. The eRisk consortium has developed e-mail risk-reduction guidelines that include previously established physician-patient relationships, informed consent, physician review of e-mail content, inclusion of correspondence in the medical record, and appropriate fees and disclaimers (53).

Adequate reimbursement to providers is essential, given the resources they must invest and the paid office visits that e-mail may replace (54). Some private health insurers are now paying physicians for e-mail consultations, and the American College of Physicians released a 2003 policy paper urging the Centers for Medicare & Medicaid Services and other insurers to work with physicians in developing reimbursement guidelines for e-mail consultations (55). The report cites research on a reimbursed, Web-based physician-consulting system called WebVisit, which showed reduced patient spending on office visits and high patient and physician satisfaction. On the basis of these results, Blue Shield of California expanded the program to all of its 2 million members in 2003 (55).

Underlying reimbursement and other practical concerns is the fundamental issue of whether medical care requires personal interaction. Clearly, much medical care does. However, studies are appearing that show positive medical outcomes from Internet-delivered care for certain chronic disease management and behavioral counseling applications (56, 57). Dr. Donald Berwick, president and chief executive officer of The Institute for Healthcare Improvement, articulates the distinction between information flow and personal encounters (58):

... the precious time and energy of the clinician should be preserved carefully for exactly those pastoral, manip-

ulative and pattern-recognition tasks that only personal contact can accomplish well . . . . When patients need information, they need information, not appointments. When they need medication, they need medication, not visits . . . .

### Serve When Service Is Needed

Untimely service from the first-choice physician may delay needed treatment and often sends patients to alternate providers, including urgent care clinics and emergency departments (59, 60). Fractionated, discontinuous, or delayed care imposes added cost and inefficiency on the health care system (61).

Examples such as the following true story reflect the experiences of many patients. A mother calls a dermatologist about a bleeding growth on her daughter's back. She is told that the earliest possible appointment is in 2 months. Frustrated and concerned, she accepts the appointment because the doctor is "in-network" and the family has used him for several years. In the meantime, the daughter is placed on a waiting list.

The dermatologist's access model is detrimental to patients and the practice. This physician is vulnerable to a new dermatologist entering practice in the area. His staff contends with disappointed patients who cannot obtain timely appointments. Staff also performs the extra work of maintaining a waiting list and making reminder calls to reduce "no-shows."

Health care does not have to be this way. The dermatologist is going to see about 30 patients a day in 2 months, just as he is today. Why not see many of those patients this week instead of in 2 months? This is the fundamental idea behind advanced (open) access scheduling. No logical reason exists to make patients wanting timely appointments wait for weeks or months other than a backlog of patients booked for future appointments. Of course, dedicated physicians commonly fit sick patients into their already full schedules. However, this custom contributes to physician and staff fatigue and may affect the quality of service delivered to other patients. If the staff is willing to make an up-front, one-time effort to reduce the patient backlog, it becomes possible to offer timely appointments in the normal flow of the practice.

Murray and colleagues (13, 61) describe 3 basic options for patient scheduling: the traditional model, which books patients into the next available opening; the carve-out model, which keeps some appointments open (perhaps 10%) for urgent care visits; and the advanced access model, in which perhaps 50% of appointment slots are open at the start of the workday (61). Advanced access eliminates the distinction between urgent and routine care, enabling most patients to schedule their appointments close to their own needs and timetable.

The experiences of physicians who have pioneered advanced access suggest that the greatest difficulty is transitioning from the old to the new system. The transition

requires seeing more patients and doing more with them in 1 appointment to systematically work through the backlog (13). Advanced access requires operational efficiencies, including determining an optimum patient panel size, identifying the proper appointment length, using fewer types of appointments, eliminating certain routine follow-up visits, and developing contingency plans for unanticipated demand. Implementing a care team approach and nonvisit options, such as telephone appointments and e-mail consultations, also supports advanced access. Once the transition is made, ongoing administrative support and physician leadership are vital (62). Centra, a Chicago-area primary care network with multiple locations, launched advanced access in 2001. Timeliness of visits and patient satisfaction improved substantially, and continuity of care (percentage of patient visits with their own physician) increased from 40% to 75% (62).

### DESIGNING THE SYSTEM FOR ALL PATIENTS

To realize its potential, patient-centered access must help bridge the gap in health care delivery to medically underserved and at-risk populations. Studies suggest the possibilities, but more research is needed to identify the access paths and methods that best serve specific population groups. Pilot projects demonstrate that nonphysician providers, as part of a coordinated team, may contribute to improved outcomes for the underserved, often at lower costs (63, 64). Mobile outreach clinics (65), school-based health centers (66), and walk-in practices (67) also can improve access for underserved populations.

The basic premise of telemedicine, which is to transfer information rather than transfer the patient, offers rural populations and their caregivers access to specialized medical care (68). New home-based telemedicine technologies may help disabled, elderly, and rural patients avoid the discomfort and inconvenience of travel and office waits (69). Reliance on Internet technologies, however, could further marginalize some underserved populations. The digital divide makes online access to health information and physicians less feasible for lower-income minority, elderly, and less educated populations who are less likely to use the Internet (47, 70, 71). However, Internet technology has been found to improve the dissemination of health-related information and services to some underserved groups, such as people with physical disabilities (46, 72).

### A PHILOSOPHY AND INTEGRATED CONCEPT

Health care is for patients. Improving patients' access to care means enhancing their ability to secure appropriate and preferred medical assistance when and where it is needed. Working at the high end of expertise, aligning care with need and preference, and serving when service is needed facilitate available, appropriate, preferred, and

timely care. Better access strengthens patient–provider relationships.

Patient-centered access is best understood as a philosophy and integrated concept rather than as a specific set of techniques. The philosophy is to design the service system for its users. The concept recognizes the heterogeneity of the users and the necessity of multiple paths to the service to effectively and efficiently accommodate their heterogeneity. The techniques of patient-centered access will continue to evolve with advances in knowledge. The characteristics and principles of patient-centered access and the philosophy and integrated concept that underlie them can nurture and guide this evolution.

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