

# Improving Timely Access to Primary Care

## Case Studies of the Advanced Access Model

Mark Murray, MD

Thomas Bodenheimer, MD

Diane Rittenhouse, MD

Kevin Grumbach, MD

**T**HE ACCOMPANYING INNOVATIONS in Primary Care article describes the difficulty patients often face in gaining timely access to primary care and explains the “advanced access” model recently initiated by many physician practices to solve this problem.<sup>1</sup> In the advanced access model, patients calling to see their physician are offered an appointment the same day. Advanced access is not sustainable if patient demand for appointments is permanently greater than physician capacity to offer appointments. However, most waiting reveals problems in matching demand and capacity on a day-to-day basis, rather than an absolute lack of capacity.<sup>1</sup>

Physicians and office staff often respond to advanced access proposals with skepticism, believing that the practice will be overrun by patients with an insatiable demand for visits. “If anyone who calls can come today, we’ll be here until midnight,” is a typical comment. However, practices that have implemented advanced access have not experienced subsequent increases in visit rates. For example, in the Kaiser-Permanente practice that pioneered advanced access, the demand for visits per patient per year dropped by 10% after the new model took hold.<sup>2</sup>

The accompanying article in the series presented the conceptual rationale, based in queuing theory, for why

**See also p 1035.**

The advanced access model of patient scheduling is based on the core principle that if the capacity to provide patient appointments balances the demand for appointments, patients calling to see their physician are offered an appointment the same day. The accompanying article in the series “Innovations in Primary Care” presents the theory behind advanced access scheduling. In this article we describe 4 case studies of primary care practices that successfully implemented advanced access and 3 examples of practices that were unable to achieve advanced access despite considerable efforts. The lessons of these case studies should be useful for primary care practices desiring to improve timely access to care and wishing to avoid the pitfalls that can derail this innovation.

*JAMA.* 2003;289:1042-1046

[www.jama.com](http://www.jama.com)

advanced access can match supply and demand on a daily basis and make better use of clinician resources. However, no systematic controlled studies of the advanced access model have been performed. Anecdotal reports from organizations implementing this innovation suggest that the model results in improved access and greater continuity of care.<sup>2</sup> This article represents the first attempt to examine the application of advanced access in a variety of practice settings. In addition to describing case studies from real world experiences, we also present hypothetical examples highlighting typical problems that can derail the advanced access model.

### Case Studies of Advanced Access

We compiled a list of 85 primary care practices that have implemented, or attempted to implement, advanced access. The list came from an Institute for Healthcare Improvement collaborative on the Idealized Design of the Clinical Office Practice<sup>3</sup> and from other sources available to the authors. There is no registry of the “universe” of prac-

tices that have attempted advanced access in the United States, precluding comparison of the 85 listed practices with the total population of practices that may have attempted this innovation. We interviewed administrators and physicians at 23 of these practices; the interviews were selected to capture variation based on region of the country, rural vs urban location, and size and type of practice. The practices in which we conducted interviews included 15 in urban and 8 in rural settings; 9 were in the East, 7 in the Midwest, 2 in the South, and 5 in the West. As shown in the TABLE, 23 of the 85 practices identified, and 4 of the 23 practices interviewed were small primary care offices. From the 23 interviews, we present 4 cases of practices

**Author Affiliations:** Mark Murray & Associates, Sacramento, Calif (Dr Murray); Department of Family and Community Medicine, University of California, San Francisco (Drs Bodenheimer, Rittenhouse, and Grumbach).

**Corresponding Author and Reprints:** Thomas Bodenheimer, MD, San Francisco General Hospital, Bldg 80-83, 1001 Potrero Ave, San Francisco, CA 94110 (e-mail: [tbodie@earthlink.net](mailto:tbodie@earthlink.net)).

**Section Editor:** Drummond Rennie, MD, Deputy Editor.

that successfully implemented advanced access, followed by 3 examples of practices that had less success. (The successful organizations are named; the less successful are not.)

### Highland Family Practice

Highland Family Practice, a private fee-for-service medical office in rural Virginia with 2 physicians and a nurse practitioner, cares for a wide variety of patients, 20% of whom are elderly or disabled. The practice has used advanced access scheduling since it opened in 2000. Each physician has a patient panel exceeding 1500 and sees an average of 28 patients per day. Given their broad scope of practice (including obstetrics and office procedures), the panels are reaching their limit. At the beginning of an average day, from 30% to 50% of appointment slots are open. Elderly patients and those with long-term conditions are offered pre-scheduled appointments, but these are not made on Mondays or near holidays. Some days are too busy and the physicians stay late; other days are comfortable, with 8 to 10 patients per physician per half-day. The physicians said they liked advanced access because they were not double-booking patients into already full schedules.

Demand is measured daily by a receptionist who counts the number of calls for appointments, physician-generated follow-up appointments, and drop-ins. These measures help the physicians predict how demand is increasing as the practice grows and how demand varies with days of the week and seasons of the year. Provider capacity is matched with the demand projections, with the goal to “stay ahead of the demand curve.” The physicians estimate that demand will exceed capacity in about 6 months and are already recruiting another physician. Although the management of advanced access does consume time and energy, it saves the energy wasted in traditional scheduling systems that require constant juggling of schedules, making triage decisions, and answering telephone calls interrupting patient visits.

Advanced access has been relatively easy to sustain because the 2 physician owners of the practice are committed to the concept for their patients and for themselves.

### South Central Foundation

Six years ago, 85% of care for patients in the South Central Foundation, the primary care system of the Alaska Native Medical Center in Anchorage, Alaska, was delivered in urgent care settings. Waits during acute visits were many hours long, and waiting times for nonurgent appointments were measured in months. Only a few patients could identify their own clinician and even fewer saw their clinician of choice.

Today, patients in this system have a guarantee of a same-day appointment, usually with their own physician, if they call before 4 PM. Eighty-five percent see their own clinician. Managerial staff linked each patient

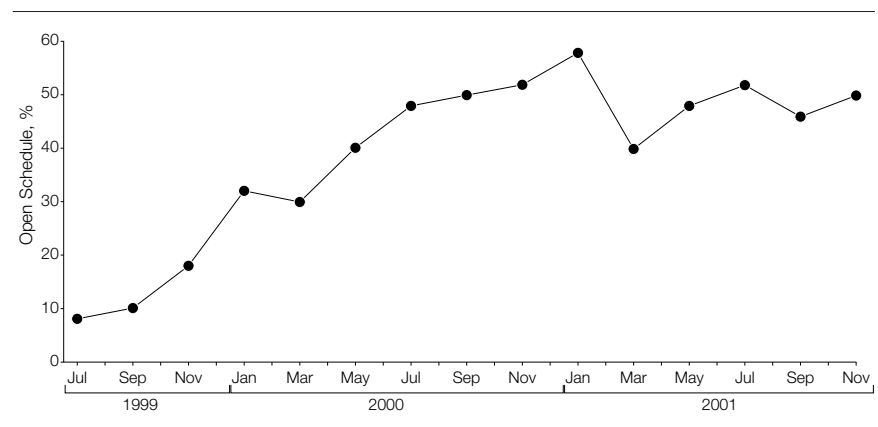
with a specific physician, reduced the appointment backlog, developed contingency plans for vacations and other expected events, reduced demand by encouraging continuity of care, and transferred to case managers some work previously performed by physicians. These changes required hard work and a commitment to major redesign. The FIGURE shows how the percentage of appointment slots that were open rose dramatically as advanced access was consolidated.

Backlog reduction took several months, and physicians were initially skeptical but survived the process with encouragement from management. Moving to advanced access often highlights other system problems. For example, telephones functioned poorly, which prevented patients from calling for same-day appointments and prompted a board member to tell management: “You gave me the Mercedes

**Table.** Characteristics of Primary Care Practices Identified as Attempting or Achieving Advanced Access

Type of Practice	No. Located	No. Interviewed
Small private practice	23	4
Health system with small offices	10	4
Medium-sized medical group	12	3
Large integrated health system	15	5
Veterans Affairs/military	2	0
Teaching practice	8	3
Community health center	13	3
Student health service	2	1
<b>Total</b>	<b>85</b>	<b>23</b>

**Figure.** Percentage of Appointment Slots Open During the Next Month South Central Foundation



but forgot to give me the keys.” This bottleneck has been corrected. Since patients can come the same day if they call before 4 PM, the end of the day can be burdensome to clinicians, a problem currently being addressed.

This practice was successful because its management devoted a great deal of effort in solving problems as they arose, included the entire staff in the process, set up data systems—which physicians and staff found very helpful—to track access measures, and sought assistance from outside experts experienced in implementing advanced access.

### **Centra, a Part of Central DuPage Health System**

A primary care network with 14 sites in the western suburbs of Chicago, Ill, Centra launched advanced access in July 2001. The majority of patients are privately insured with 23% insured with Medicare and 2% insured with Medicaid. Most primary care physicians work full time—32 clinical hours per week—and see about 25 patients per day. Prior to advanced access, the third next available physical examination for some physicians was more than 35 days. A carve-out system was tried, but pressure to fill the frozen slots early was irresistible.

After 4 to 6 weeks of backlog reduction, access was ranged from 0 to 3 days, where it has remained. Patient satisfaction rose from the 72nd to the 85th percentile of a standardized, national survey, and continuity of care (percentage of patient visits taking place with their own physician) increased from 40% to 75%.

Though physician panels were not excessive (average 1800), backlog reduction was difficult; some physicians worked extra shifts while others stayed late in the evenings. After the backlog was eliminated, schedules had to be managed daily to solve problems, particularly for the more popular physicians. Under the new model, some physicians work harder while others work less. As the executive director explained, “To sustain

the gains after working down the backlog is not a slam dunk.”

### **Bellevue Hospital**

The outpatient department of Bellevue Hospital in New York, NY, a large urban public teaching hospital, started advanced access in some primary care and specialty clinics in July 2001. The third next available appointment prior to that date was in the vicinity of 12 weeks; by July 2002 the figure had dropped to 1 to 3 days for primary care, human immunodeficiency virus, neurology, and geriatrics clinics. Patient satisfaction improved by 25%.

The champion of the new model is the medical director, who attempted the change in 1999 but failed. At that time, a major obstacle was the rotation of residents through the clinics to such an extent that 80% of physicians were part-time. The medical director succeeded in changing the system, and 80% of physicians are now full-time. For part-time rotating residents, teams were established with a full-time nonphysician serving as the team anchor. The scheduling reform, together with the medical director's tireless persuasion of countless people in the institution, enabled the second attempt to succeed. Other public hospitals are currently working to emulate this improvement in access for the nation's lowest-income patients.<sup>4</sup>

### **Practice A: A Small University-Based Practice**

The medical director of this practice returned from a meeting at which advanced access was presented excited about the concept. A committee of clinicians and administrators was assembled to initiate the innovation. However, the 6 key changes—balancing supply and demand, working down the backlog, reducing appointment types, developing contingency plans, reducing demand, and increasing capacity—were not put into practice. Nor was a model for organizational change adopted.<sup>5</sup> The innovation never moved from planning to implementation stage. The reform withered.

### **Practice B: An Integrated Delivery System**

A health system in a medium-sized city launched advanced access at some primary care sites. In one site, the third next available appointment for some physicians was 40 days. The backlog was reduced and advanced access was achieved. However, some physicians left and demand increased due to the closing of another nearby primary care site. With this mismatch of demand and capacity, access deteriorated. The site returned to a carve-out system, but is now attempting advanced access again.

In another primary care site in the same system, most physicians never embraced the idea, thinking that the reform was being pushed by administrators for the purpose of increasing market share. Most physicians were part-time, had hospital as well as ambulatory care duties, and were used to maintaining tight control over their schedules. The site has had difficulty obtaining outpatient charts from the hospital's medical records department, making the physicians wary that same-day appointments would result in even fewer available charts. Due to this combination of real system constraints and resistance to change, the site never made a serious attempt at advanced access.

### **Practice C: A Community Health Center**

A community health center serving a low-income urban population attempted to initiate advanced access but did so in a rigid manner. The health center made it difficult for patients to obtain prescheduled appointments by requiring most patients to call by telephone on the day they wished to come. The telephone system became so overburdened that many patients were unable to call. Although access improved for those patients able to be seen promptly, access diminished for other patients. Clinicians became concerned that elderly and disabled people appeared less able to navigate the new system. This example reveals that ad-

vanced access must be implemented in a flexible manner, attuned to the particular needs of each institution and its patients. Some patients—the chronically ill and children with special needs—probably fare better with prescheduled appointments. Advanced access is not meant to punish patients by restricting prescheduled appointments that some patients prefer or need.

### Lessons of the Case Studies

Practices that successfully implemented the advanced access model measured their demand and capacity and developed contingency plans to match capacity and demand daily. When asked if the energy needed to sustain the advanced access model was burdensome, one physician responded, “It is far less effort than handling the daily triage and double-booking chaos of the old system.” Most practices reported that managerial time is needed on a permanent basis to sustain advanced access. In order to increase capacity, some successful practices have created team structures to delegate some tasks formerly performed by physicians to other practice staff. All practices had trouble working down the backlog—a problem especially difficult in larger organizations when advanced access was introduced as a management-generated rather than a physician-generated concept—with the goal of increasing patient satisfaction and market share. Because the benefits of advanced access come more quickly for management (decreasing appointment delay) than for physicians (a less stressful workday), motivating employed physicians to undertake this innovation is not easy. Advanced access is more easily accomplished in smaller private offices and when it is initiated by physicians who are owners of the practice and are therefore motivated to reduce hassles created by denying patients prompt appointments.

The practices that did not succeed in implementing advanced access stumbled for a variety of reasons. Practice A never moved beyond the neces-

sary task of working down the backlog. Practice B achieved initial success, only to have the model falter when confronted with abrupt and unexpected changes in supply and demand. Practice C encountered fundamental problems in managing telephone demand and in flexibly balancing internal and external visit demand from a vulnerable patient population.

Interview respondents invariably mentioned 2 characteristics as essential to achieving and sustaining advanced access: (1) the willingness of the majority of physicians to make a major change in their mode of functioning, and (2) ongoing administrative support and leadership.

In the following 2 fictional vignettes, we distill many of the common problems that practices we interviewed encountered in sustaining advanced access and the approaches used to overcome these problems.

### Confronting Problems

*Dr F, a family physician, is very popular with her patients. Whereas the other 7 physicians in her practice have panels of 1600 to 1800 patients, her panel exceeds 2500, many with long-term conditions. After finally eliminating her backlog, she was pleased to find that 50% of her appointments were open each day. However, she received an average of 24 telephone requests for appointments each day, with only 12 open slots. Although she attempted to “do today’s work today,” her backlog was reaccumulating. Her future open capacity sank to 15%. Dr F did not want to return to the old way, but she could not sustain the new way. She demanded a meeting with the practice administrator.*

Sustaining advanced access after eliminating the backlog is an active daily process. What tools could practices use to help overpaneled physicians like Dr F, whose demand exceeds her capacity? The administrator and Dr F first agreed to protect Dr F from some obvious sources of excessive demand for visits. Dr F’s schedule was closed to new patients not already in her patient panel.

Dr F would no longer see patients of other physicians on days when her colleagues were not working or on vacation. The administrator and Dr F, acknowledging the relative undersupply of clinician resources for Dr F’s panel, agreed to transfer an underutilized nurse practitioner from another site to form a care team with Dr F. In addition, the practice administrator realized that he needed to more actively manage schedules. He assigned a designated staff scheduler to work with all physicians’ schedules on a daily basis in order to match demand and capacity. Schedules for all physicians were to be kept largely empty on Mondays (when demand is greatest) and during the week following a vacation. Similar contingency planning would be done for periods of increased demand such as during influenza season. Finally, Dr F and the practice administrator embarked on some innovative strategies to redesign the care process. A nurse or medical assistant—no longer needed to perform triage functions—would be trained to assist Dr F in routine follow-up visits for stable hypertensives and diabetics. The practice would determine which patients on Dr F’s panel were frequent utilizers and arrange for care managers, family members, or home care nurses to assist in their care in order to reduce their demand on Dr F’s time. Dr F would also be assisted in arranging a weekly group medical visit allowing her to see 15 patients in a 2-hour period.

*Dr S was not convinced. After hearing about the success of the new model at the pediatric site of his practice, some of his internal medicine colleagues wanted to try it. Dr S resisted. “My panel has chronically ill, elderly patients. My diabetics need to come each month. My heart failure patients need to come regularly. My schedule is filled with prebooked appointments. This is not for me.”*

Dr S has a point; physicians with many patients with long-term illness have trouble guarding white space on their appointment books. Some practices solve Dr S’s problem by making

“pending appointments”—asking them to call for a follow-up visit in, for example, 2 months. Rather than penciling the appointment into the appointment book, the date of the pending appointment is entered into a computer or tickler file so that the patient can be sent a reminder. Such a system avoids filled appointment books while preventing patients with long-term illnesses from falling between the cracks. Many physicians succeed in keeping 50% of their appointments open; those with large panels of elderly patients or newborns have more appointments booked in advance.

The advanced access model has a potentially symbiotic relationship to the chronic care model, described in earlier articles in this series.<sup>6,7</sup> In the chronic care model, patients with stable illness can be followed up with planned visits performed by nonphysician caregivers under physician-created protocols, thereby reducing demand for pre-scheduled physician appointment slots and helping to match demand and capacity. At the same time, the advanced access model allows patients with an acute exacerbation of their illness to have prompt access to their own physician.

### Need for Research on Advanced Access

The case study findings presented herein invite corroboration with more rigorous study designs. A number of questions deserve research attention. Should elderly patients with certain diagnoses be encouraged to request same-

day appointments or should they be scheduled in advance? Are certain patient panel characteristics not appropriate for the new model? Does improved access for some types of patients potentially come at the expense of diminished access for others? Does advanced access reduce delays in a manner that actually improves clinical outcomes, such as more rapid recovery from acute illnesses and avoidance of exacerbations of chronic conditions? Are physicians working shorter or longer hours under advanced access, and how does physician stress impact the sustainability of the model? Can advanced access be sustained over many years, or will it wither as enthusiasm for the novel is no longer a major motivation for the reform? Advanced access is spreading rapidly in primary care and should become a priority topic for research. Professional organizations, health systems and funders of health services research all have a stake in ensuring that advanced access models are subjected to prospectively designed, rigorous evaluation.

### How to Begin

Timely access to primary care is a problem for many patients. Primary care practices must become more innovative in designing new scheduling models to resolve this problem. In an era calling for creativity and experimentation in primary care, the advanced access model is a notable approach to reforming basic scheduling procedures.

Primary care practices with access problems can take some initial steps to

evaluate their potential for moving to advanced access. The first step begins with collecting baseline data on demand, capacity, panel size, continuity rates, and each physician's third next available appointment. Most offices and clinics can readily measure these indicators using existing scheduling templates and staffing records and by monitoring calls for appointments. Once baseline data are collected, the practice must assess whether capacity is sufficient to satisfy visit demand. This assessment involves examination not only of overall demand and supply, but more importantly of daily and seasonal fluctuations in demand and supply that create mismatches and scheduling bottlenecks. Practices not ready to immerse themselves in an advanced access model may take the smaller steps of initiating incremental reforms in scheduling, such as planning more systematically for staffing contingencies like vacations, rethinking triage procedures, and redesigning routine office visits to make more effective use of clinician time.

Before taking the plunge into advanced access, it is important for primary care practices to hold serious discussions about their desire to undertake this reform. It is natural for the human mind to push today's work off until tomorrow. Advanced access requires that physicians begin to think in a new way: to pull tomorrow's work into today.

**Disclaimer:** Mark Murray & Associates assist medical practices to institute advanced access and other practice improvements.

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