Advanced Access
A New Paradigm in the Delivery of Ambulatory Care Services

Ingrid A. Singer, MHS
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About the National Association of Public Hospitals and Health Systems

The National Association of Public Hospitals and Health Systems (NAPH) represents over 100 of America’s most important safety net hospitals and health systems. These facilities provide high quality health services for all patients, including the uninsured, regardless of ability to pay. They provide many essential community-wide services, such as primary care, trauma care, and neonatal intensive care, and educate a substantial proportion of America’s doctors and nurses. NAPH hospitals are also major providers of ambulatory care services. In 2000, 77 NAPH members provided more than 24 million ambulatory care visits and an additional 4.5 million emergency room visits. At the national level, NAPH advocates on behalf of its members on issues of importance to safety net health systems across the country. NAPH also conducts research on a wide range of issues that affect public safety net hospitals.

About the Author

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Advanced Access: A New Paradigm in the Delivery of Ambulatory Care Services
By Ingrid A. Singer, MHS
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Access to care and wait times at clinics and physicians’ offices are leading determinants of patient satisfaction and loyalty. Such loyalty and satisfaction are becoming crucial to clinics and practices seeking to thrive in the increasingly competitive health care environment. To improve satisfaction and to deal with frequent delays and wait times in ambulatory care settings, clinics are turning to an innovative concept called “advanced access.” Advanced access is a revolutionary vehicle for increasing patient, physician, and staff satisfaction and for improving clinical outcomes.

Advanced access is rooted in a set of principles that allow providers to offer an appointment on the day the patient calls to request one, regardless of whether the reason for the visit is urgent, routine, or preventive. The model entails more than accepting walk-ins, allowing acute patients same-day access, or having urgent care capabilities. It entails granting patients access to their provider when they want it. Advanced access is achieved when each provider’s schedule has availability for same-day scheduled appointments, regardless of the reason for the visit.

In principle, the concept of advanced access is relatively straightforward: leave enough space open on providers’ schedules so that patients can obtain same-day access. In practice, however, advanced access requires that a clinic re-engineer the way it conducts business. It entails measuring the demand for visits, evaluating the clinic’s capacity, working down the appointment backlog, and striking the right balance between supply and demand. At the same time, processes and work flows need to be monitored so that bottlenecks can be identified and resolved appropriately.

We selected seven case study sites that paint a picture of what several facilities committed to the principles of advanced access are doing at different stages in the implementation process. Some of these sites are beginning to collect data and do preliminary analyses of their clinic operations, others have begun piloting advanced access, and others have fully implemented the model. The experiences of these case study sites leave us with the following lessons for other institutions that may be considering advanced access as a way to re-engineer outpatient operations:

• **Leadership is everything.** In order for the initiative to gain the necessary credibility among providers, there must be a clear message from the CEO and ambulatory care leadership about the role of advanced access in meeting the institution’s strategic objectives. At the clinic level, it is imperative to have the right individual leading the transition to advanced access.

• **Don’t use the excuse that you don’t have the latest technology to delay implementation.** Although having the most technologically advanced scheduling, medical record, and reporting systems would make implementation of advanced access easier, these features are not essential for a successful implementation.
• The hardest part is taking the first few steps. Don’t be discouraged by a difficult transition. Making the commitment to move toward an advanced access system is likely to entail making sacrifices in the short run. Those who have made it through believe that all the hard work pays off in the end.

• Clinics in academic settings will need to take additional steps to improve continuity of care. Clinics that rely on part-time clinicians and medical residents will need to create continuity by organizing providers into teams. These clinics should strive to provide patients with same-day access to either their PCP or a member of their team.

• There is always hidden capacity…find it! Systems may find hidden capacity in many ways, including ensuring that providers are not spending valuable time on paper work that can be completed by support staff, identifying unused exam rooms, and addressing late arrivals that cause providers to run behind schedule.

• Start small. Piloting a new initiative such as advanced access can help an institution come up with solutions to unforeseen circumstances before the new system is implemented on a large scale. If the pilot site or group experiences early successes, it can help build enthusiasm for the new initiative.

• Once advanced access is in place, work to maintain it. Do not assume that once advanced access is implemented, it will maintain itself. It is important to continue monitoring demand and supply, as their patterns may slowly start to change.
1. Introduction

Access to care and wait times at clinics and physicians’ offices are significant factors in determining patient satisfaction and loyalty. As they strive to succeed in an increasingly competitive health care marketplace, providers are finding customer service and improved access to care to be critical factors not only in attracting new patients, but also in retaining existing ones. They are also finding that the bottlenecks and delays that have been prevalent in the health care system for so long have also become leading sources of dissatisfaction among physicians, nurses, and office staff.

Advanced access, also referred to as “open access” or “same-day scheduling,” is a re-engineering method that addresses delays, waiting times, and other sources of dissatisfaction among patients, providers, and other clinic staff. In its most recent report, Crossing the Quality Chasm: A New Health System for the 21st Century, the Institute of Medicine’s Committee on Quality Health Care in America describes advanced access as an important vehicle for achieving timely, efficient, patient-centered care.

Through findings from a survey of ambulatory care work at member institutions conducted by the National Association of Public Hospitals & Health Systems (NAPH) in spring 2001, we learned that several members had implemented or were in the process of implementing advanced access in their outpatient clinics. Many others were interested in learning more about the concept and hearing about the experiences of members that were already working toward implementation. This report was prepared in order to address these interests. In the following pages, we discuss the principles of advanced access as they are described in the literature and by the developers of the model. We describe typical access problems in ambulatory care settings and the ways in which advanced access aims to address them. We explain the basic steps necessary to prepare for implementation of advanced access and address special considerations for teaching and safety net facilities. We highlight seven case study sites, including one community health center and ambulatory care clinics at six safety net hospitals and health systems, which have implemented or are in the process of implementing advanced access. We describe how each site has approached the transition to an advanced access system and describe special challenges they faced along the way. Finally, we draw from the experiences of these sites and draw attention to lessons that other facilities may wish to take into account if they are considering adopting the advanced access model.


Methodology

NAPH obtained information about advanced access and its implementation through a review of the literature and books on management theory. We supplemented what we learned from these materials by conducting interviews with individuals who had helped sites with the implementation of advanced access. One of these individuals was Mark Murray, MD, MPA, an authority on access systems and one of the creators of the advanced access model. (See the Appendix for an interview with Dr. Murray.)

NAPH concurrently contacted members whose involvement in advanced access initiatives had been brought to our attention through other ambulatory care research conducted earlier in the year. We conducted interviews with ambulatory care leaders at these sites to learn about their implementation processes, special challenges, and any results they had obtained to date. The initial interviews were soon followed by a one-page questionnaire sent to ambulatory care contacts for the entire NAPH membership. The purpose of the questionnaire was to gauge the level of our members’ involvement in advanced access initiatives and to identify sites for additional interviews.

When NAPH conducted an interview with the Medical Director of New York City’s Bellevue Hospital Center, he invited us to visit his institution to learn about advanced access first-hand. The site visit took place on July 19, 2001. NAPH staff met with the medical director and the hospital’s ambulatory care leadership to learn about their process for implementing advanced access. We attended a weekly meeting with the directors of clinics currently working on implementing the new system and learned about their data collection activities and other efforts to monitor the success of the model.

NAPH was very interested in incorporating the experiences of community health centers into our findings. We contacted the National Association of Community Health Centers to obtain the names of contacts at 330-funded health centers using or considering the advanced access model. We conducted interviews with several of these sites as well and feature one in the case study section of this report.

Once all interviews were completed, seven sites were chosen to be highlighted as case studies in the report. Case study sites were selected with the goal of capturing variation in geographic location, implementation stage, ways in which implementation was carried out, and results. Although not all interview sites were featured as case studies, their experiences were incorporated in our analysis and were extremely helpful in shaping the topics covered in the report.
2. Advanced Access in Ambulatory Care Settings

The Issue

A major cause of patient dissatisfaction in ambulatory care settings is inadequate access to physicians. Patients in all types of outpatient settings are displeased with long wait times for appointments, the inability to schedule visits with their preferred provider, and wait times at doctors’ offices for scheduled appointments. The situation seems particularly prevalent at clinics and outpatient departments run by safety net systems. In a 1999 poll conducted to evaluate public perceptions about safety net hospitals and their importance in public policy, NAPH found that although the quality of care in safety net hospitals is highly rated, the public believes that safety net hospitals lag behind others in having appropriate wait times to receive care.

Patients are not the only ones dissatisfied with the status quo. Providers that once considered booked schedules and packed waiting rooms a sign of a successful practice are starting to realize that these are often the result of inefficient systems. They are becoming frustrated by large appointment backlogs that affect continuity of patient care, create the need for costly triage, delay the provision of care, and result in high no-show rates. Office staff morale is suffering due to the demands of operating in an inefficient system, particularly the constant need to juggle providers’ schedules and deal with patient complaints.

To address these concerns, providers are looking toward an innovative concept called “advanced access.” Advanced access is based on a simple, yet challenging rule: Do today’s work today. Advanced access is rooted in a set of principles that allow providers to offer an appointment on the day the patient calls to request one, regardless of whether the reason for the visit is urgent, routine, or preventive. Advanced access entails more than accepting walk-ins, allowing acute patients same-day access, or having urgent care capabilities. It entails granting patients access to their provider when they want it. It is achieved when each provider’s schedule has availability for same-day scheduled appointments, regardless of the reason for the visit.

Origins of Advanced Access

Advanced access draws from re-engineering concepts, such as continuous quality improvement and continuous flow, which have long been adopted widely in industries outside of health care. These management principles call for continuous

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monitoring of systems to identify bottlenecks and designing of processes to
effectively meet demand.\textsuperscript{7}

It was not until the early 1990s that these principles began to be adapted in the
health care environment. Mark Murray, MD, MPA, and Catherine Tantau, RN,
MPA, developed the concept of advanced access during this time while managing
a large primary care department for Kaiser Permanente in northern California.
They had experimented with various ways to address patient, physician, and staff
dissatisfaction with long waits and bottlenecks in the department. After many
unsuccessful attempts at tweaking parts of the system, they ultimately realized
that it needed to be rebuilt. They also realized that special attention needed to
be paid to the doctor-patient relationship. The model they created, \textit{advanced
access}, enabled patients to see their own physician on the day they requested an
appointment, regardless of the reason for the visit. In less than a year, the wait
time for routine appointments in the practice was reduced from 55 days to less
than a day, and the likelihood of matching a patient with his or her personal
physician increased from 47 percent to 80 percent. According to Murray and
Tantau, physician, patient, and staff satisfaction improved dramatically.\textsuperscript{8}

Over the last several years, the principles of advanced access have been embraced
by other groups, including the Boston-based Institute for Healthcare Improvement
(IHI). IHI is an independent, non-profit organization that promotes various health
care improvement initiatives. Through its Idealized Design of Clinical Office Practices
(IDCOP) project, IHI promotes redesign of clinical office systems to improve access,
interaction, reliability, and innovation.\textsuperscript{9} Advanced access is a key component of
IDCOP. IHI offers numerous seminars and educational materials to teach health care
leaders about the principles and implementation of advanced access.

Mark Murray, Catherine Tantau, and individuals at IHI continue to work actively
with hospitals, community health centers, and physician practices to assist them
with the implementation of advanced access. According to reports from the field,
providers are seeing first-hand that the model delivers what it promises. The
fact that these results are proving to be replicable in so many different settings
is generating much excitement and is placing increasing importance on patient
access and customer satisfaction.

\textbf{Long Wait Times: Why Are They So Prevalent?}

Inefficient scheduling practices are commonly the root cause of long wait times at
clinics and physicians’ offices. In many clinics, providers’ schedules are booked
with routine appointments weeks or months in advance. The farther out visits
are scheduled, the higher the number of patients who will fail to show for their
appointments or who will call to reschedule.\textsuperscript{10} To counteract these expected
no-shows and cancellations, providers often saturate their schedules by double and
triple-booking appointments. When patients assigned the same appointment slot
actually show, providers inevitably begin to run behind schedule and patients are

\begin{itemize}
\item \textsuperscript{7} Institute of Medicine (2001), op. cit.
\item \textsuperscript{8} Murray M and Tantau C (September 2000), op. cit.
\item \textsuperscript{9} Institute for Healthcare Improvement. 2001. “Idealized Design of Clinical Office Practices.” Online. Available
\item \textsuperscript{10} Murray M and Tantau C. Redefining Open Access to Primary Care. \textit{Managed Care Quarterly} 1999; 7(3):
   45-55.
\end{itemize}
faced with long wait times. This problem is further compounded by patients calling in with urgent or acute care needs. Such patients are generally required to speak with a triage nurse, who determines whether they should be squeezed in for a same-day visit. As the urgent-care clientele is accommodated into an already saturated schedule, wait times become worse.\(^{11}\)

This scheduling practice compromises not only patient satisfaction, but often quality of care as well. Under this scenario, urgent patients are generally scheduled with any provider who is available and the continuity of their care is routinely disrupted. Additionally, patients who cannot persuade the triage nurse that their condition requires immediate attention are relegated to the end of the queue (possibly worsening their clinical condition).

Some practices try to avoid over-saturation of physicians’ schedules by carving out a fraction of same-day appointment slots for urgent patients who call in. Although this practice moves toward advanced access for at least some patients, under this scenario too many patients are still forced to schedule routine appointments weeks or months in advance. Providers continue to double and triple book appointments to counteract expected no-shows and last-minute cancellations. Although urgent patients are more easily worked into the appointment schedule, they still undergo a triage process to determine whether they meet the triage requirements for same-day care. Those who do not “make the cut” are sent to the end of the queue, along with patients calling in for routine appointments. Again, patients presenting for a scheduled visit are forced to wait.\(^{12}\)

**How Advanced Access Can Help**

Advanced access differs from traditional scheduling models in that physicians begin the day with a large portion of their schedules open for same-day requests for urgent, routine, and follow-up appointments. Patients can be seen when they want to be seen, which drastically improves the show rate for appointments. Since providers do not have to protect themselves from high no-show rates by overbooking appointment slots, schedules are much more likely to run on time, resulting in shorter patient waits to see a physician or other health professional.

According to the architects of the model, it is not satisfaction, but delight, that creates customer loyalty. Advanced access aims to delight patients by providing same-day appointment availability, increasing the probability that they will be able to see their primary care physician (PCP), and reducing appointment cycle times (the full amount of time spent at a doctor’s office or clinic during an appointment).\(^{13}\) Clinics that adopt the principles of advanced access can provide patients with convenience that exceeds that of walk-in clinics or urgent care centers, as they still provide same-day access without the long wait times generally involved in seeing a provider. In fact, most NAPH members that have transitioned to advanced access have found that they have been able to either eliminate or scale down their urgent care operations without compromising their ability to provide needed care to patients with acute medical problems.

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\(^{12}\) Ibid.

\(^{13}\) Murray M and Tantau C (1999), op. cit.
A parallel goal of advanced access is to increase satisfaction among providers and other clinic staff. Same-day access improves patients’ health outcomes because care is not delayed. Care is not postponed for urgent patients who fail to secure timely appointments due to miscommunication or language difficulties. Such improvements in quality of care increase provider satisfaction. Advanced access allows nurses that once spent most of the day on telephone triage to spend more time on direct patient care, which usually results in improved job satisfaction. Advanced access can also help improve clinic operations, making the job more satisfying for schedulers and other clinic support staff.14

In addition to improving patient, provider, and staff satisfaction, advanced access can reportedly help improve the financial performance of a clinic. A recent study of the impact of failed appointments on clinic revenues indicates that no-shows pose considerable problems for a practice. In that study, revenue shortfalls resulting from appointment no-shows ranged from three to 14 percent of clinic revenues over the course of one year.15 Providing same-day access can dramatically reduce these no-show rates. Although our members have seen dramatic decreases in no-show rates as a result of advanced access implementation, NAPH is currently unaware of any studies performed by members on the effect of the model on clinic revenues. It is widely reported in the literature, however, that under advanced access clinic revenues can be improved as resources are freed up and used more efficiently.16 The need for costly triage is reduced or eliminated by making same-day appointments available. As providers begin to spend more time seeing patients, clinic revenues can begin to increase.17

14 Herriott S., op. cit.
16 Grandinetti D. Make the Most of Your Staff. Medical Economics. April 24, 2000;  8:56.
3. Implementing Advanced Access

First Steps

In principle, the concept of advanced access is relatively straightforward: leave enough space open on providers’ schedules so that patients can have same-day access. In practice, however, advanced access requires that a clinic re-engineer the way it conducts business. Implementation entails measuring the demand for visits, evaluating the clinic’s capacity, working down the appointment backlog, and striking the right balance between supply and demand. At the same time, processes and work flows need to be monitored so that bottlenecks can be identified and resolved appropriately. Even before any of these things happen, however, several steps need to be taken to ensure that the implementation process is well thought out and destined to succeed. These include obtaining buy-in from the organization’s leaders and from providers involved, identifying the proper site or sites to pilot the initiative, and appointing the right person to coordinate and oversee the effort.

Obtain buy-in

Obtaining buy-in from the organization’s leadership and the physicians involved is a crucial and often difficult first step.18 Obtaining a deliberate commitment from the organization’s CEO to support this effort is imperative if the model is to be widely adopted and if it is to succeed in the long run. At individual clinics, it is imperative to have leaders who will obtain buy-in and build consensus among physicians and other providers. Physicians need to feel comfortable that this is the right way to go, otherwise their resistance will thwart any efforts to move forward. Doctors and others who have not previously heard of this concept may at first exhibit skepticism.19 The concept may seem too simplistic, and the results may appear too good to be true. If there are any setbacks during the implementation process, there must be a strong leader who can deal with those problems and keep the process in motion.

When asked about ways to generate enthusiasm for this endeavor, several members suggested conducting site visits to see the successful implementation of advanced access first-hand. NAPH leaders who have been through this process and who are now champions of the model stressed the importance of hearing from colleagues who have been through the implementation process and who will say that they would never go back to the old way of doing things. Ideally, the site visited should have some common characteristics (e.g., comparable outpatient visit volumes, teaching status, patient populations). Seeing the model work successfully at a facility with similar challenges could help convince administrators and clinicians that implementation can be successful at their own sites as well.

Several members also reported that they worked with Mark Murray, representatives from IHI, and other consultants to generate interest in this model. Such consultants

18 Herriott S., op. cit.
may be hired to give the administration, ambulatory care leaders, and physicians an overview of advanced access principles and to describe interesting success stories. They may also be engaged to provide guidance as needed along the way during implementation.

**Commit to Starting Small**

Dabbling in advanced access or adopting an altered version of the model will not yield the results exhibited by those practices that have implemented these principles deliberately and successfully. While clinics and practices may need to customize the implementation of the model to their particular organizational concerns, that does not mean that they select among the features of the model and apply only those to their particular situations. For instance, providing same-day access only for urgent cases will reduce no-show rates among this group of patients but not among those with routine needs that are forced to continue scheduling appointments far into the future. Because the model will work best when all of its principles are applied, it is wise to pilot this initiative before implementing it throughout an entire ambulatory care system.

Seeing measurable results from a pilot site will generate interest among other services or groups of physicians. Institutions that wish to spread the model may face fewer political hurdles through expansions of the pilot than through attempts to re-engineer all services simultaneously. Many of our members noticed almost immediate improvements after implementing advanced access at a pilot site, and they report that other sites were eager to adopt the model after hearing about these early successes. At the same time, several members reported that they needed to do quite a bit of tweaking and experimenting during the implementation process. Even though clinics within a health system may operate differently, these members expect that lessons learned at the pilot sites will make implementation at subsequent sites proceed much more smoothly and efficiently.

**Appoint a Coordinator**

Decisions in the implementation of advanced access are driven by data. Our members who have been involved in the implementation of advanced access stress that the right person must be placed in charge of coordinating data collection efforts and ensuring that the correct data is being measured and tracked. This coordinator must be someone who will be extremely familiar with the necessary steps of implementation and who will closely monitor relevant parties in order to collect the necessary data. In a hospital setting, this individual should be recognized by the administration and by physician leaders alike as the appropriate person for this important function.

At Bellevue Hospital Center, the individual chosen to coordinate the implementation effort among various clinics is a respected ambulatory care leader. She has been very successful at helping clinic directors understand the importance of tracking core measures and sharing findings with other members of the ambulatory care team. The level of coordination achieved has helped pilot sites learn from each other’s experiences and make their implementation efforts more successful.

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20 Specific data needs will be described in subsequent sections.
Getting Started

Moving toward advanced access entails making fundamental changes in the way a clinic is organized and in how it operates. Depending on the type of clinic, its clinical focus, population, or other set of factors, there may be some variation in the order in which providers approach the implementation steps (see box insert: Advanced Access Implementation Steps). The data collection and operational assessments performed as a clinic moves toward advanced access will need to be continued on an ongoing basis even after the model is fully implemented. As the system matures, the amount and type of analysis can become increasingly targeted and sophisticated.

Predicting Demand

Demand is a measure of the volume of patient requests to see a physician. For any given day, demand is calculated by tracking the volume of patients calling in to request appointments (regardless of whether an appointment is scheduled for the same day or for some time in the future), the number of walk-ins (regardless of whether or not they are seen), the number of calls with referrals from urgent care clinics, emergency rooms, or other providers, the number of calls deflected to urgent care and other providers, and the number of existing appointments.21

The demand for appointments can vary daily or seasonally.22 Clinics report that Mondays often tend to be busier than other days of the week, as providers must address the needs of patients who become ill over the weekend while the clinic is closed. Demand can also vary by season. For example, demand in primary care clinics may be higher during the winter season due to an influenza outbreak, and demand at pediatric clinics may be higher in late summer, just before the start of a new school year. This seasonal variation means that clinics may need a full-year cycle to be capable of making demand predictions that allow accurate planning over a full 12-month period.23

Once some preliminary analysis has been done, demand calculations can become more sophisticated. The clinic can begin tracking demand for same-day, next-day, and pre-scheduled appointments, as well as preferred appointment times throughout the day.24 It can also track the age or clinical characteristics of the patient population so that those physicians trained to meet the needs of specific populations can be assigned the proper percentage of the appointment slots to meet this demand.25

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21 Boelke C, et al., op. cit.
25 Ibid.
Calculating Capacity

Capacity is a measure of provider availability, or supply. The basic formula for measuring daily capacity requires calculating the number of appointment slots per hour and multiplying that by the number of hours that the clinic is open.

Capacity should be calculated as demand is being measured. Although the basic capacity calculation is relatively simple, some clinics may wish to take a more detailed look at their availability in order to obtain a better sense of where some of their problems may lie. For example, a clinic may want to measure capacity by individual provider in addition to calculating it for the entire clinic. In calculating the number of appointment slots per hour, the clinic may take into consideration the fact that some providers work faster than others and may therefore be able to see more patients. It may also be helpful to study how capacity is distributed throughout the day.

Capacity may vary substantially from day to day during a given week. This may be particularly true for clinics that rely on part-time clinicians and medical interns and residents. Figure 1 depicts how provider availability may vary by day at a clinic staffed by residents and attending physicians.

Figure 1: Sample Capacity Study

<table>
<thead>
<tr>
<th>Day</th>
<th>Resident Appointments</th>
<th>Attending Physician Appointments</th>
<th>Total AM &amp; Evening</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AM</td>
<td>PM</td>
<td>Evening</td>
<td>AM</td>
</tr>
<tr>
<td>Monday</td>
<td>29</td>
<td>12</td>
<td>0</td>
<td>16</td>
</tr>
<tr>
<td>Tuesday</td>
<td>17</td>
<td>20</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Wednesday</td>
<td>16</td>
<td>12</td>
<td>6</td>
<td>35</td>
</tr>
<tr>
<td>Thursday</td>
<td>37</td>
<td>18</td>
<td>0</td>
<td>26</td>
</tr>
<tr>
<td>Friday</td>
<td>0</td>
<td>45</td>
<td>0</td>
<td>39</td>
</tr>
</tbody>
</table>
Plotting Capacity Against Demand

Once capacity and demand have been tracked, they must be matched against each other in order to ensure that there is sufficient supply to meet incoming demand. If a clinic finds great variation in capacity or demand from day to day, it must smooth these out in order for advanced access to work. The system will be destined for failure if overall demand remains greater than overall capacity.

In an overly-saturated system, it is not unusual for initial analyses to suggest that demand exceeds available capacity. Such clinics may have hidden capacity that can be exposed as resources are used more effectively. NAPH members report that they have found hidden capacity where providers’ time was being used inefficiently (e.g., physicians taking vital signs and nurse practitioners buried in paperwork). Making sure that each individual does work appropriate to his or her level of expertise can help ensure that capacity is maximized. It is also important to ensure that space is being used resourcefully. Exam rooms used for storage or office space should be cleared out so that they can be used for patient care.

If there is a great deal of variability in available capacity, it is important to review how this supply is distributed. Providers should be available on the days when patient demand is highest. If they are not, it may be necessary to adopt policies that ensure that enough providers are available to cover peak demand times. Clinics in academic settings and clinics in underserved areas may see more variation in either capacity or demand from day to day. Figure 2 depicts what capacity and demand at such a clinic may look like in a given week. It is evident in this example that there is insufficient capacity to meet the demand for appointments on Mondays. If the clinic has already done all it can to maximize capacity on Mondays, it can try to shift the excess demand to other days of the week. If, for example, a patient who is seen on a Monday needs a follow-up appointment two weeks later, the appointment can be scheduled for a Wednesday or Thursday, when demand is lower than available capacity.


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**Figure 2:**

Sample Capacity and Demand Analysis

![Graph showing capacity and demand across weekdays](image-url)
If there is still an overwhelming volume of demand after all options for maximizing capacity have been exhausted, there are other ways to help shape demand. One way to do this is to eliminate unnecessary appointments. One NAPH member accomplished this by looking at the number of repeat appointments in the appointment backlog and ensuring that all of the patients’ various needs were handled during one visit. Other members found that valuable appointment slots were being used to handle requests for prescription refills, which could alternatively be handled over the telephone. Still other members found that physicians were ordering follow-up appointments more frequently than clinically necessary. One way suggested in the literature for eliminating routine ordering of follow-up appointments is to develop guidelines indicating when such appointments are necessary and when a follow-up telephone call might be sufficient.27

Although not yet prevalent among NAPH members, group visits are another method recommended in the literature for managing patient demand. Such groups are usually comprised of patients with a chronic condition, such as asthma or diabetes. The frequency of the group visits may vary from weekly to monthly, depending on the patients’ condition. The idea is that, for example, instead of having a provider spend 15 minutes twice a month with each patient, he or she can spend 90 minutes once a month with a group of 20 patients. Depending on patients’ insurance, the group visit may or may not be billable. This setting, however, is ideal for educational purposes. Patients reportedly have additional time with their provider to have their questions addressed. Not only do they receive more attention in the group setting, but they have the opportunity to form bonds with other patients in similar situations.28

**Performing Operational Assessments**

Even before a clinic begins to implement advanced access, it should undertake assessments of office operations in order to identify and address potential bottlenecks in the way patients are cycled through the office. For example, it should identify any parts of the system that may be slowing down the patient flow and cumbersome processes that use staff time inefficiently. Once these are identified, they should be addressed as appropriate.

Hospitals that had piloted or fully implemented advanced access in more than one clinic often found that the bottlenecks and inefficiencies were different at each site. Some of these were easier to address than others. Several hospitals reported that they had to add new telephone lines to adequately handle the volume of incoming calls. Others reported that they needed to re-organize the way medical records were kept so that valuable staff time would not have to be spent tracking down patient charts. Some found that they needed to ensure that exam rooms were stocked with the proper equipment and supplies. Others found that staff responsibilities needed to be shifted and that some cross-training was necessary because providers were spending too much time dealing with paperwork instead of providing patient care. Still others realized that they needed to address bottlenecks in the registration process.

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27 Nolan TW, et al., op. cit.
These types of operational assessments should take place on an ongoing basis before, during, and after advanced access has been implemented. Too often, the identification of operational inefficiencies or technological shortcomings can be used as excuses for delaying implementation of an advanced access system. The architects of the model stress that the greater the challenges the system faces, the more important it is to do something to address them.

**Working Down the Backlog**

Before a clinic can begin offering patients same-day access, it must work through its backlog of pre-scheduled appointments so that it can get to a point in time where providers’ schedules are predominantly open. Working down the appointment backlog is hard work, and it entails increasing capacity in the short run in order to handle the additional demand that comes in during that time. If this is not done, incoming demand will be sent to the end of the queue, further extending the backlog. It may help to decide on a date beyond which visits will not be pre-scheduled, unless a patient needs to be scheduled due to medical necessity or a preference to come in at a specific point in time.

In order to work down the backlog while meeting incoming demand, providers should expect to see more patients per day. 29 This may entail temporarily extending clinic hours and bringing in providers and staff as needed until the backlog is reduced. 30 At Bellevue Hospital Center’s gynecology clinic, for example, providers were required to work one extra hour and see three additional patients per day during the two months that they spent working down the appointment backlog. One physician and three mid-level providers were assigned all walk-ins and patients calling in who were willing to be seen on the same day.

Providers may also wish to consider getting the most of each patient visit, a practice known as “max-packing.” 31 Max-packing entails addressing not only what a patient needs today, but also what he or she will need tomorrow. This may be accomplished by doing something as simple as having a conversation about smoking cessation, or performing a routine test that a patient would normally come in for at a later time. By avoiding unnecessary follow-up visits, patients’ satisfaction is increased and doctors can create more capacity to handle new patients. 32 The Parkland Health & Hospital System’s clinics adopted this practice, and ambulatory care representatives report that in addition to reducing the need for follow-up visits, it has helped to improve the quality of patient care.

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29 Ibid.
30 Grandinetti DA (March 2000), op. cit.
32 Ibid.
When working to reduce the appointment backlog, it is important to remember that not all backlog is bad. According to Murray and Tantau, there is good backlog and bad backlog.\(^{33}\) Good backlog is created by both patients who prefer to pre-schedule an appointment and patients who need to be prescheduled because their condition warrants follow-up care at a certain point in time. Because patient satisfaction and improved outcomes are desired outcomes of advanced access, it does not make sense to compromise these in order to clear out providers’ schedules. According to a review of several advanced access systems that have been in operation for several years, approximately 25 percent of patients will turn down a same-day appointment in favor of a pre-scheduled future appointment.\(^{34}\) Patients who are particularly fragile because of the acuity of their condition or because of other social circumstances (e.g., homelessness, lack of a telephone) should also be pre-scheduled. What needs to be avoided is “bad backlog,” which occurs when there is insufficient capacity and there is no choice but to send patients to the end of a queue.

### Going Live

**Reserving Appointment Slots for Same-Day Access**

Once all of the preliminary analyses are completed, a clinic is ready to go live with advanced access. Based on its calculated demand and supply, each clinic will need to make a decision about the number of slots that it will leave open for advanced access appointments. Although the literature states that given the option, approximately 75 percent of patients will prefer a same-day appointment over a pre-scheduled appointment,\(^{35}\) our members are generally leaving between 40 and 60 percent of appointment slots open for same-day visits. This is because in some cases, clinics are treating large volumes of patients whose chronic conditions warrant pre-scheduling. Other clinics treat very vulnerable patients who may become “lost in the system” if they are not scheduled in advance, such as homeless patients and others without a telephone. Clinics also tend to find that elderly patients prefer to schedule their appointments in advance.

\(^{33}\) Murray M and Tantau C (September 2000), op. cit.
\(^{34}\) Ibid.
\(^{35}\) Murray M and Tantau C (September 2000), op. cit.
Clinics in NAPH hospitals stress that striking the right balance between pre-scheduled and same-day appointments can be a challenge. They want to leave enough slots open for advanced access, but not more than they expect to fill with same-day demand. Ultimately, what they need to keep in mind is that too much pre-scheduling will drive no-show rates up and bring back the problems that led to the consideration of advanced access in the first place.

**Educating Patients**

The hospitals and clinics that spoke with us reported that they did not have much trouble convincing patients to trust the new system. These facilities typically started publicizing the move toward advanced access by placing advertisements in local newspapers and by placing flyers, posters, and other promotional materials in waiting rooms. Providers explained the new system to their patients during scheduled visits. Patients accustomed to calling in for a future appointment were told that they would be able to call in for a same day appointment on a day that was convenient for them. Some patients expressed surprise, especially if they had become accustomed to having to schedule appointments several months ahead of time, but they were delighted to hear that they could be seen on the day of their choice.

Some of the greater challenges experienced by NAPH members have been in educating patients that arrive too early or late for an appointment. Although it seems counterintuitive at first, patients who arrive too early for an appointment create bottlenecks in the registration area that can throw office staff and providers off schedule. When early arrivals register too long before their scheduled time, they prevent registration clerks from processing patients who arrive on time for their appointments. Because their registration is delayed, they fail to make it into the exam room on time. This causes providers to run behind schedule, resulting in longer waits for patients throughout the day. Patients who arrive too long before their scheduled appointment need to be told that this practice affects the clinic’s ability to run on time. One way some clinics have chosen to resolve this situation is to register these patients closer to the time of their scheduled visit.

Late arrivals are another, even bigger problem. If they are seen at whatever time they present, they will also create bottlenecks and throw providers off schedule. This is unfair to patients who arrive on time for their appointments and are then forced to wait to see their provider. Some providers report that they have started to reschedule patients who arrive more than 15 minutes past their appointment time, often for a time later in the same session.

**Developing Contingency Plans**

Even if a clinic generally does a good job matching its capacity to its expected demand, there may occasionally be days when the volume of requests for appointments exceeds the available capacity. There will also undoubtedly be days when providers or clinic staff will be away on vacation or out of the office with an illness. Contingency plans are important for helping a clinic deal with such situations.
Contingency planning may include cross-training of staff so that they can assume different duties as needed when their colleagues are unavailable.\textsuperscript{36} For example, nurses or other midlevel providers may handle additional parts of patient visits when physicians are short-staffed and appointment schedulers may help other support staff with insurance paperwork when someone is out of the office. To the extent possible, the clinic should also develop policies so that vacations and days off are scheduled in advance and key players are not away from the office at the same time.

Careful planning can also help clinics deal with contingencies such as predictable increases in demand.\textsuperscript{37} For example, if a clinic expects increased demand for routine physicals within a couple of weeks at the start of a new school year, it may stagger the demand by posting fliers over the summer asking patients to begin coming in for those visits. Having a plan for dealing with both expected and unexpected supply shortages will ultimately help to ensure the success of the advanced access model.

\textsuperscript{36} Nolan TW, et al., op. cit.

\textsuperscript{37} Murray M and Tantau C (September 2000), op. cit.
4. Special Considerations for Teaching and Safety Net Facilities

Implementing advanced access requires a fundamental shift in the way ambulatory care is organized and delivered. Safety net facilities may have concerns about the suitability of the model for the populations they serve. They may also worry that access improvements might attract large volumes of new uninsured patients, negatively affecting their institutions’ financial performance. At academic facilities that have traditionally focused on teaching and research as top priorities, implementation of advanced access will lead to some re-shifting of priorities as patient satisfaction is given increased importance. These facilities will need to give special consideration to how they will incorporate interns and residents into the model and make a decision about implementing the model in specialty settings.

Suitability of the Model for Vulnerable Populations
While trying to make access more convenient for patients, advanced access to some extent requires patients to take charge of their own health. Several of the sites interviewed indicated that as teaching and safety net facilities, they sometimes tend to be a bit protective toward the vulnerable populations they serve, particularly patients with complex conditions. They were initially concerned about “losing patients in the system” if they allowed them to leave without a scheduled return appointment. In the end, some safety net facilities have found that for the fragile populations they serve, same-day access actually makes more sense than pre-scheduling. Through recent research on the topic of barriers to prenatal care services, NAPH learned that members had found walk-in or same-day appointments to make the most sense for predominantly low-income patient populations struggling with problems such as transportation or child care. These patients have a difficult time committing to an appointment months ahead of time, but they can commit to come in for a same-day appointment on a day when they have secured transportation or childcare. Same-day appointment availability makes it more likely that these patients will receive the services they need.

Advanced Access and Specialty Care
Advanced access was developed in a primary care setting, but its principles are applicable to specialty care settings as well. Scheduling may be a bit more challenging if a clinic does not run every day, but this just entails changing the definition of “same-day” appointment. In this type of setting, for example, “same-day” may mean “same-week” if a specialty or sub-specialty clinic only runs once a week. Ultimately, the goal is to make sure there is enough open time on providers’ schedules to reduce the amount of time patients are asked to wait before being seen.

The hospitals and clinics we interviewed had implemented the model predominantly in primary care clinics. Most of those who were considering expanding implementation to specialty care settings had begun the process by

38 Singer I and Regenstein M. Prenatal Care in the Community: How Eight Safety Net Hospital Systems are Managing Care for Low-Income Women. National Public Health and Hospital Institute, April 2001.
piloting the model in a primary care setting. Two of the five pilot sites selected by Bellevue Hospital Center were specialty clinics whose leaders were very committed to trying out the new model and making it work.

Effects on the Bottom Line
One of the goals of advanced access is to increase clinic revenues by improving efficiency and attracting new patients. This expectation of increased revenues, however, assumes that the new patients attracted are paying patients. Although improved service and efficiency will help to attract patients in all payer categories, it is likely that safety net facilities will attract many new patients who are uninsured. Our members reported that they had indeed experienced some increases in demand from new patients, and most considered the increase to be manageable. NAPH did not collect information on insurance coverage for these new patients. Although it is the mission of safety net hospitals and health systems to provide services to all patients regardless of insurance status or ability to pay, these providers may face additional financial challenges if the new patients that they attract are predominantly uninsured.

How Medical Interns and Residents Fit in
Academic medical centers and teaching hospitals face special challenges when implementing advanced access due to their high volumes of part-time providers and medical interns and residents. Because these providers are not in the clinic every day, they may not be available on the day that one of their patients calls for an appointment. This can affect the continuity of care for these patients.

To make advanced access work in an academic setting, teaching institutions tend to group interns and residents into care teams that are assigned to panels of patients. Even if a patient's assigned resident is not available when he or she comes in, someone else who is familiar with the patient's history will be there to take care of them. The patient will come to know a small group of providers, rather than seeing a new person at each visit.

In an environment with full-time providers, advanced access aims to provide patients with same-day appointment availability with their PCP. In academic settings with large numbers of residents and part-time providers, however, continuity of care is achieved by providing patients with same-day access to either their PCP or a member of their team.

Advanced Access Outside of Managed Care
Teaching hospitals and safety net health systems may be hesitant to adopt a model that was originally developed to address problems in a managed care environment, which has a defined patient population. Safety net hospitals in particular may fear that advanced access will create even greater demand on their supply of providers as a result of their mission to serve all patients regardless of ability to pay and the existence of few, if any, barriers to entry.

According to our interviews with ambulatory care leaders at NAPH hospitals and health systems, most have found that the process of constantly measuring capacity and demand had added predictability to patient flows. This, in turn, has resulted in improved clinic efficiency and management. Providers have been better able to plan ahead and make any necessary changes to accommodate patients. They have
seen an influx of new patients, but this is a desired outcome of advanced access. Increased productivity under the more efficient advanced access system has also allowed providers to see more patients in the same amount of time.

Contra Costa Regional Medical Center, on the other hand, has experienced significant increases in demand. Clinics are trying to accommodate the influx of new patients by experimenting with ways to reduce unnecessary visits. Some of these methods include using care management services, examining physician practice patterns, and reducing medically unnecessary appointments.

Ultimately, each clinic will need to make a decision about what makes the most sense for its patients, providers, and staff. Although the model is not likely to be as effective if it is not implemented in a well thought-out manner, practices will inevitably adapt it in different ways that meet their needs.

5. Case Studies

As we began researching the prevalence of the advanced access model among our members, we quickly learned that the concept remains very new to many NAPH facilities. Although ambulatory care leaders are generally familiar with the basic goals of advanced access, many are just beginning to consider it as a potential solution to access problems in their ambulatory care systems.

We selected seven case study sites that paint a picture of what several facilities committed to the principles of advanced access are doing at different stages in the implementation process. Some of these sites are beginning to collect data and do preliminary analyses of their clinic operations, others have begun piloting advanced access, and others have fully implemented the model. Figure 3 identifies the selected case study sites and summarizes some key features about their advanced access implementation efforts.

Figure 3: Case Study Site Comparison

<table>
<thead>
<tr>
<th>Site</th>
<th>Total Annual Outpatient Visit Volume, 1999*</th>
<th>Date Advanced Access Began</th>
<th>Implementation Stage</th>
<th>Setting (Primary or Specialty)</th>
<th>% of Slots Reserved for Same-Day Appointments</th>
<th>No-Show Rate Pre Advanced Access</th>
<th>No-Show Rate Post Advanced Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambridge Health Alliance</td>
<td>406,680</td>
<td>Feb. 1999</td>
<td>Implemented at 16 sites</td>
<td>Primary</td>
<td>40% - 60%</td>
<td>30%</td>
<td>20%</td>
</tr>
<tr>
<td>Contra Costa Regional Medical Center (Martinez, CA)</td>
<td>336,450</td>
<td>Jul. 1996</td>
<td>Fully implemented</td>
<td>Primary</td>
<td>50%</td>
<td>30%</td>
<td>15%</td>
</tr>
<tr>
<td>Denver Health</td>
<td>552,330</td>
<td>Pending</td>
<td>Preparing to pilot at 3 sites</td>
<td>Primary</td>
<td>Pending</td>
<td>Pending</td>
<td>Pending</td>
</tr>
<tr>
<td>Neighborhood Family Practice Community Health Center (Cleveland, OH)</td>
<td>27,000</td>
<td>Jan. 2001</td>
<td>Fully implemented</td>
<td>Primary</td>
<td>55% - 70%</td>
<td>50%</td>
<td>25%</td>
</tr>
<tr>
<td>NYCHHC-Bellevue Hospital Center</td>
<td>562,811</td>
<td>Jul. 2001</td>
<td>Being piloted at 5 sites</td>
<td>Primary &amp; Specialty</td>
<td>40% - 60%</td>
<td>Not avail.</td>
<td>Not avail.</td>
</tr>
<tr>
<td>Parkland Health &amp; Hospital System (Dallas, TX)</td>
<td>941,661</td>
<td>Dec. 2000</td>
<td>Fully implemented at 8 sites</td>
<td>Primary</td>
<td>50%</td>
<td>40% - 45%</td>
<td>15% - 20%</td>
</tr>
<tr>
<td>University Hospital, The University of New Mexico Health Sciences Center</td>
<td>388,512</td>
<td>Pending</td>
<td>Preparing to pilot at 1 site</td>
<td>Primary (intends on eventually expanding to specialty sites)</td>
<td>Pending</td>
<td>Pending</td>
<td>Pending</td>
</tr>
</tbody>
</table>

* Source: NAPH Hospital Characteristics Survey, FY 1999. Neighborhood Family Practice Community Health Center is not an NAPH member; and therefore its visit volume was obtained through an interview with selected staff. Note: Total outpatient visit volumes are for the entire health system, not just for the advanced access clinics.

Regardless of the status of their implementation efforts, the major characteristic that all of the case study sites have in common is the driving force behind their decision to move toward an advanced access system: the desire to improve patient, physician, and staff satisfaction. Although sites placed varying priorities on different goals of the model, all sites specifically mentioned their desire to drive down high patient no-show rates. They had seen the negative effects of high numbers of no-shows on office wait times and provider and office staff morale. In a couple of
cases, long delays and lack of access had begun driving away not only patients, but also physicians and other staff.

Most case study sites are still too early in their implementation to conduct a meaningful analysis of the effects of advanced access on indicators such as appointment cycle times, match rates between patients and their primary care physicians, and quality of care. Even those at the very early stages of implementation, however, have started to witness dramatic reductions in their appointment no-show rates, which in most cases had very quickly decreased by at least 50 percent. Most also reported that they had received informal feedback about improved patient, provider, and staff satisfaction.

While some facilities seem to be approaching advanced access with the intention of improving scheduling practices, others regard it as just one of many pieces of a major re-engineering effort with the goal of making a fundamental change in the way ambulatory care is organized and delivered. Bellevue Hospital Center, Cambridge Health Alliance, and Denver Health, for example, have taken additional steps that are not essential components of advanced access implementation, but that help to strengthen the ideals of the model. Specifically, these facilities organized providers into “care teams” before beginning advanced access implementation. The care team concept entails assigning each care team to a panel of patients so that even if a patient’s PCP is unavailable on the day he or she wants to be seen, the patient can be treated by another provider who is familiar with his or her medical history. Although the development of care teams is not an essential part of advanced access implementation, it is an extra effort that helps to reinforce the advanced access goal of improved continuity of care.

Another finding that was made evident during our interviews is that although advanced access may be championed by the health system administration or ambulatory care leadership, implementation efforts have varied in terms of the amount of coordination between the individual clinics within a system. There also appears to be some variation in the amount of sharing of lessons learned among various sites that are part of the same health system. While some institutions hold periodic meetings to specifically discuss progress or results from advanced access implementation, others devote less time to these issues during general ambulatory care or operational meetings.

Because the literature describing the principles of advanced access does not address many of the special considerations for safety net and teaching facilities, most of the case study sites sought guidance from other parties while working through the implementation process. Several sites brought in consultants at various stages of the process to ensure that all necessary considerations were being addressed. Bellevue Hospital Center and University Hospital in New Mexico sought guidance from other sites that had successfully implemented the model. Other sites, however, such as Parkland Health & Hospital System’s community clinics and the Neighborhood Family Practice Community Health Center, essentially implemented advanced access on their own.

Although several of our case study sites expressed an interest in expanding advanced access to their specialty clinics, they have focused on implementing the model predominantly in primary care settings. Some sites explained that this was because they were still relatively new to advanced access, so they wanted to focus on working out the kinks in a setting that they considered more conducive to
implementation. Bellevue Hospital Center is currently piloting advanced access in two specialty sites; representatives there feel very positive about the results they have seen thus far and intend to eventually implement the same principles in the rest of their specialty care ambulatory clinics.

Most of the case study sites piloted advanced access in some way before implementing it across the board. The pilots varied considerably, from some as small as one doctor at the Neighborhood Family Practice Community Health Center to a pilot that involved four entire clinics at Bellevue Hospital Center. For particularly large clinics, such as Bellevue’s primary care clinic, advanced access was piloted with one “team” of providers. Representatives from these sites report that piloting efforts helped not only to lend credibility and build enthusiasm for the model, but also to yield lessons from which other sites could learn before going through the implementation process themselves.

One important concern for safety net hospitals considering implementation of advanced access is the potential for a sudden influx of new demand. Architects of the model claim that it will not create insatiable demand, but our members’ experiences have varied somewhat. The Contra Costa Regional Medical Center, which has had the model in place for five years, has seen an influx of new patients that constantly exceeds its clinics’ capacity. The Cambridge Health Alliance and Parkland Health & Hospital System, on the other hand, have seen a manageable increase in outpatient volumes accompanied by increased order and predictability in their ambulatory care operations. The Neighborhood Family Practice Community Health Center specifically decided to implement advanced access in order to improve satisfaction and attract new patients, and they have not been overwhelmed by the increased demand.

Two common fears among NAPH members who are currently considering the implementation of advanced access are (1) the fear of the amount of work involved in working down the appointment backlog, and (2) the fear of an unmanageable increase in demand. Our interviews with those institutions that have already begun implementing the model suggest that there is virtually unanimous support for the principles of advanced access. Even those who have encountered significant challenges along the way have very positive feelings about the model. The principles of advanced access hold enormous promise for improving ambulatory care operations and service.

Although the hospitals and clinics that we interviewed were generally at different stages in the implementation process, those that had either piloted or fully implemented advanced access were generally happy with the results the model had yielded to date. They have seen increased efficiencies and improved quality of care pay off in the form of improved patient, provider, and staff satisfaction. Contra Costa Regional Medical Center seems to have encountered the greatest challenges, but ambulatory care leaders have no plans to abandon the model. They realize that other changes, such as certain information systems upgrades and changes in the organizational culture, need to accompany it. Most other interviewees reported that addressing issues raised during operational assessments had helped to improve staff and provider efficiency and reduce appointment cycle times. Wait times for appointments were reduced, patients experienced improved access, and the likelihood of matching patients with their primary care physicians improved.
Cambridge Health Alliance

Cambridge, Massachusetts

Cambridge Health Alliance began implementation of advanced access in February 1999 through its participation in the Institute for Health Care Improvement’s Idealized Clinical Office Design Project (ICODP). The health system had been involved with a number of IHI’s collaboratives over the years and had specifically been working on reducing delays and increasing access to appointments. When the ICODP initiative was launched, the timing at Cambridge Health Alliance was right to commit to a deep and radical change in the way ambulatory services were provided. From the beginning, there was a clear message from the CEO and other senior leaders of the organization that advanced access was a strategic initiative for the health system and that it had the full support of the Board of Directors.

The process started with a two-day seminar with Mark Murray, MD, MPA, and Catherine Tantau, RN, MPA, which was coordinated by the Director of Clinical Operations for Ambulatory Services. Murray and Tantau spoke to all ambulatory care medical directors and nurse managers about the principles behind advanced access. All providers were required to attend one of the afternoon sessions.

Two primary care community clinics that were committed to being leaders in this effort volunteered to be pilot sites. These sites had some successes early on with improved access and reduced no-show rates, and other sites quickly decided to jump onboard. The Director of Clinical Operations for Ambulatory Services and a project coordinator worked closely to map out and disseminate an implementation plan across the health system’s 16 ambulatory care sites. They also developed a manual that compiled best practices and lessons learned across the organization.

As they prepared to implement advanced access, each of the primary care ambulatory care sites performed operational assessments. With support from a health system project coordinator and technical advisor, each clinic’s site manager studied demand and capacity to ensure that enough providers were available at the most popular times. Staff was shifted to work on days or times when demand was heaviest. In areas where demand for services far outstripped capacity, additional providers were hired. Evening hours were added or expanded as necessary. Phone systems were upgraded and medical record systems were evaluated to ensure that processes were in place for easy pulling and filing of records.

In order to educate patients about the new system, providers and registration staff took some time during their visits to explain to patients that they would soon have the ability to schedule same-day appointments. Scheduling staff also explained the process verbally to patients calling to schedule appointments. Cambridge representatives found that most patients were trusting and willing to go along with the new process. To address provider concerns about vulnerable patients becoming “lost in the system” if they failed to leave without a follow-up appointment, the clinics implemented a pending appointment system. This system holds the names of patients, along with the dates when they are due for a follow-up appointment. If patients do not schedule an appointment on their own by that date, someone from the clinic will call them and remind them to come in. Cambridge has anecdotal information that patients have been delighted with this system and really feel like their providers genuinely care about their health.
Advanced access is now fully operational at the health system’s 16 primary care sites. Four of these sites are on the hospital campus and the rest are in the community. Clinics are leaving between 40 and 60 percent of appointment slots open for same-day scheduling. At this point, the Alliance has not focused on implementing advanced access in specialty care settings. Due to its academic role and the high number of residents and part-time providers, the health system is also still trying to deal with the challenge of providing patients with access to appointments with their own primary care physicians.

Cambridge Health Alliance considers advanced access to be a stabilizing force that has made patient demand more predictable. Before advanced access, patients were unable to schedule appointments when they wanted them, and they often scheduled unnecessary appointments just in case they needed to come in. This problem has been eliminated, and appointment no-show rates have decreased dramatically. Since April 1999, no-show rates have decreased by at least a third, and in some cases by up to a half. Patients have been pleased not only with the availability of same-day appointments, but also with the reduced wait times. The clinics have been able to reduce appointment cycle times from an average of 90 minutes to 35 to 40 minutes.

The Cambridge Health Alliance views advanced access not only as a customer service initiative, but also as a tool to improve efficiency and dramatically improve the quality of patient care. Although urgent visits have always been available on the day requested, sick patients who did not communicate urgent symptoms were forced to wait. Too often, this practice would result in hospitalizations that could have been prevented if the patient had been seen earlier. By seeing patients when they first feel a need to come in, providers have an opportunity to deliver care earlier on in an acute illness or chronic episode. In this way, advanced access has enabled the health system to improve its patients’ health outcomes.

Contra Costa Regional Medical Center

Martinez, California

The Contra Costa Regional Medical Center implemented an advanced access system for primary care ambulatory services in July of 1996 in response to the state’s plan to move all AFDC MediCal enrollees into managed care by that date. The AFDC MediCal patients were given the option of enrolling in one of two plans in each county, and the health system’s Contra Costa Health Plan was one of the options for these MediCal patients in that county. The Executive Director of the Contra Costa Regional Medical Center viewed advanced access as a way to attract new patients and improve services to those patients already enrolled in the Contra Costa Health Plan. He determined that it should be a priority for the health system’s primary care clinics to move to an advanced access system by the time the state’s plan became effective.

When the health system began planning for implementation of advanced access in February 1996, primary care clinics were struggling with no-show rates of 30 percent for scheduled appointments and long cycle times for scheduled visits. The problem with the high no-show rates was compounded by the fact that providers’ schedules were saturated and appointments were being booked over two months in advance. Patients with non-urgent problems were forced to wait so long to see their physician that by the time the appointment date came around, they were either well, had sought care elsewhere, or had something else come up that kept them from keeping their appointments. All of these factors increased the no-show rate. Doctors were forced to overbook their schedules to deal with the reality that patients would not show, causing long waits for those patients who came to the clinic. Additionally, because providers’
schedules were full, patients had a very difficult time obtaining same-day access when they were sick.

The Contra Costa Regional Medical Center had only 4 months to address these problems and to fully implement advanced access system-wide. The implementation process was coordinated by a steering committee comprised of the medical director for the hospital and clinics, representatives from the health services director’s office, clinic nursing and support representatives, and representatives from the Contra Costa Health Plan.

Key to the implementation of advanced access was the need to increase capacity by running extended evening hours on days when demand exceeded supply. This strategy is still in place today, and health system representatives estimate that they are offering an additional 10 to 15 evening clinics on average per week (creating between 120 and 180 appointment slots per week). These evening clinics are staffed by physicians, mid-level providers, and support staff who volunteer to work the additional hours in exchange for bonus pay. Subsequently, the health system’s two urgent care clinics (which previously served walk-in patients) were converted into family practice clinics. A date was chosen for the new system to go live, and appointment templates were designed that required schedulers to keep 65 to 70 percent of providers’ appointment slots open for same-day or next-day appointments. Rather than scheduling chronic patients in advance, these patients were asked to call back for a same-day appointment when they were due to return. Patients who were especially fragile or complex were an exception, and they continued to be scheduled in advance.

As these changes were taking place, clinic staff performed operational assessments and addressed instances in which providers were spending too much time on paperwork and other administrative duties instead of on direct patient care. They also found that appointments were often used inefficiently, as physicians’ schedules were booked with visits for prescription orders and for frequent follow-up on chronic conditions. Clinics increased capacity by decreasing the number of appointments used unnecessarily and using care coordinators to increase the operational efficiency of providers. Even now, care coordinators currently continue to help patients navigate the system, obtain necessary prescriptions, and follow up on problems at the request of physicians and patients.

After five years, advanced access has seen mixed results. On the one hand, the historical no-show rate of 30 percent dropped in half to 15 percent within a month. At the same time, however, the primary care clinics have experienced a large influx of new patients and have encountered a demand management problem. Although they have increased their capacity by 20 percent over the last five years, the clinics have seen the gulf between supply and demand widen during the same period.

Health system representatives speculate that the influx of new demand may be due, in part, to the fact that the system has been opened to all, while barriers to entry into the system are virtually non-existent. Transportation barriers are minimal because clinics are located in the community. All are located on local bus routes, and all routinely make bus vouchers available to patients who need them. Another potential reason for the demand management problem is that clinics have had a difficult time defining their patient population and predicting patient volumes. MediCal eligibility for their patients changes regularly, and patients move back and
forth between the area’s public and private health systems so frequently that the medical center’s clinics have had a difficult time planning services.

Despite the conveniences provided by same-day access, Contra Costa’s primary care clinics have found that patients and providers are requesting pre-scheduled appointments with increasing frequency. In order to accommodate these preferences, clinics have had to reduce the fraction of slots left open for same-day appointments to 50 percent. Patients who wish to pre-schedule appointments can do so up to 14 days in advance.

In the next several months, the health system will launch a new central scheduling system that will track patients’ no-show rates. Patients who have a kept-appointment rate of 90 percent or higher will be allowed to schedule appointments up to one month in advance. Because the clinics do not want to lose reductions in the appointment no-show rate, patients who miss appointments will lose the privilege of pre-scheduling more than 14 days in advance. Patients will not be penalized if they cancel an appointment with at least 24 hours notice, since this allows the time slot to be used for another patient. The health system has identified this as a way of meeting customers’ desires to schedule in advance without compromising the clinics’ need to keep no-show rates low.

Despite the on-going challenges associated with advanced access, physicians are generally supportive of the model and the health system plans on staying with it. Providers find that the quality of patient care has improved, as the new system has increased the likelihood that patients will see their own primary care physician when they are sick. The new system has also introduced greater order in logistical issues surrounding a patient visit. For example, since all patient visits are now scheduled, medical records can be pulled with more notice under advanced access than under the urgent care clinic scenario.

Contra Costa representatives believe that advanced access has led to significant process improvements at its clinics. It anticipates improvements in other areas, such as information systems and organizational culture, to help work out outstanding issues that keep the system from working as well as it could.

**Denver Health**

*Denver, Colorado*

For several years, patients at Denver Health’s Community Health Centers, similar to those accessing most ambulatory clinics, have expressed a desire for greater appointment availability with their primary care providers. Providers have become concerned about the effect of access problems on the quality of patient care. Health system administrators and ambulatory care leaders ultimately realized that the centers were organized in a way that made it difficult for patients to get in, and that they needed to redesign the way they scheduled patients in order to improve access. They also needed to make these practices more rewarding for providers. Denver Health is addressing these issues by re-engineering its ambulatory system and carefully planning a move toward a system of advanced access.

In 1995, Denver Health’s centers began their re-engineering efforts by organizing staff into provider “teams” that resemble a group practice model. Each team has a group practice leader (usually a physician) and a practice manager (usually a nurse) who are in charge of managing the team’s resources. The team approach has been instrumental in laying the groundwork for advanced access. It has helped
to ensure that the most appropriate individual handles each part of each patient visit. Physicians are beginning to conduct “huddles” with their nurse practitioners and office assistants to review the day’s schedule and to develop a plan for handling the patient volume. This process helps ensure that each member of the team uses his or her time effectively and that patients are moved through the system as efficiently as possible.

Denver Health’s ambulatory care leaders have been working with a consultant and are laying the groundwork for piloting advanced access at three community sites. These sites are currently identifying changes that will make implementation easier, such as scheduling and medical record system upgrades. They are also identifying indicators that they will monitor to identify opportunities for improvement and to track success. For example, the sites are currently tracking call volumes, visit volumes and waiting times. They are also scrutinizing patient flows to identify bottlenecks, which are proving to be different in each clinic. Clinics are performing daily patient satisfaction surveys and annual staff satisfaction surveys, and they are beginning to address problem areas raised in the surveys.

Denver Health considers advanced access to be one piece of a large-scale re-engineering effort to improve access and care delivery in the outpatient setting. The health system and those leading the effort are committed to making sure that the implementation process is carefully thought out and coordinated.

**Neighborhood Family Practice Community Health Center**

*Cleveland, Ohio*

Each year, the Neighborhood Family Practice community health center provides health care to approximately 8,000 patients in a medically underserved area of Cleveland, Ohio. Faced with the financial reality of needing to attract new patients, improve patient satisfaction, and reduce appointment no-show rates, the center transitioned to an advanced access system in January 2001. One of the physicians in the practice championed the effort after reading about the model in a journal, and he quickly convinced administrators and providers at the center that it made sense to try it. The center set a goal for when the new system should go into effect and ultimately implemented the model without any help from outside consultants or groups.

Two of the physicians in the clinic began piloting the advanced access concept in November of 2000. At that time, the other four providers in the clinic began telling their patients that beginning in January, they would be able to schedule same-day appointments instead of having to schedule weeks in advance. Working down the backlog of existing appointments proved not to be too complicated, even though the center had been scheduling patients up to six weeks in advance. By having providers explain the new system to patients early on, schedulers received fewer requests for pre-scheduled appointments and had a relatively easy time keeping the schedule open for the early part of the year.

Each day, between 55 and 70 percent of appointment slots are held open for same-day visits. The clinic is usually able to schedule patients with their primary care physician. Patients calling in late in the afternoon or on a day when their physician is not present are offered an appointment for the next day. Chronic

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*41 This community health center is a free-standing site not affiliated with an NAPH member.*
patients can be pre-scheduled if they prefer, or at their providers’ discretion. The no-show rate at the center has decreased from 50 percent to approximately 25 percent. Most of those who are still failing to show are those who are not scheduled for a same-day appointment. Although there are some slow days, providers are seeing more patients overall. Patients are telling providers and office staff that they are more satisfied with the new system, and nursing staff is spending less time on triage.

**Bellevue Hospital Center**  
*(New York City Health and Hospitals Corporation)*

**New York, New York**

On July 2, 2001, Bellevue Hospital Center launched advanced access in its gynecology, pediatrics, neurology, and virology clinics, as well as with a group of providers in its primary care clinic. Ambulatory care leaders are very excited about the model, and they aim to implement advanced access at all primary care and specialty clinics by the summer of 2002.

Planning for advanced access at Bellevue began in September 2000, as the hospital began construction of a new ambulatory care facility adjacent to the main hospital. Administrators realized that the funds used to finance this construction would not be spent wisely if they were devoted to an inefficient system with which patients and staff were dissatisfied. The medical director championed advanced access as a new philosophy to drive change and progress in the way outpatient care is delivered.

The first step that the medical director took in building enthusiasm for advanced access was to obtain the support of a critical mass of high-level individuals. These included ambulatory care leaders and key physicians, as well as administrators at the Health and Hospitals Corporation’s (HHC) central office. The medical director and his staff arranged site visits for key administrators and ambulatory care leaders to see advanced access at work at the Cambridge Health Alliance and Rochester Medical Center. Together with nearby Gouverneur Nursing Facility and Diagnostic & Treatment Center, Bellevue hired a team of consultants to train ambulatory care leaders and to develop a manual that would allow clinics in all services to follow the same steps in their implementation of advanced access.

The pilot sites that were chosen were primarily primary care clinics. The virology and neurology clinics were also chosen because their Medical Directors have particularly strong leadership qualities. Although each of the pilot clinics performed their own operational analyses as they prepared for the new system, the implementation of advanced access was centrally coordinated. Ambulatory care leaders began holding weekly meetings with the heads of the relevant clinics to discuss the progress of implementation efforts and findings from operational assessments. During these meetings, which still continue today, attendees discuss indicators such as appointment cycle times, no-show rates (usually by individual physician), demand, and staff and patient satisfaction. In addition to ambulatory care leaders and heads of the clinics implementing the new system, these meetings are attended by representatives from the registration, information systems, pharmacy, lab, medical records, human resources, and public affairs departments.

In most cases, tracking patient demand was a relatively straightforward process. Increasing capacity, on the other hand, proved to be highly political. It often
entailed asking physicians to increase hours worked or to give up negotiated schedules or time off (at least temporarily). At the GYN clinic, for example, providers were temporarily required to work one extra hour and see three additional patients per day. Time studies were performed to evaluate whether staff time was being used efficiently, and nurses that were found to be spending large amounts of time doing triage and administrative work were shifted to patient care activities. Exam rooms that were being used as office space were converted to patient care rooms to create extra capacity.

In order to work down the backlog of existing appointments, clinics ran extended hours and brought patients in sooner than originally scheduled. When patients called to pre-schedule appointments, schedulers informed them that the clinic had moved to an “open access” system and that they would now be able to schedule same-day appointments on the day they wanted to come in. In order to minimize future bookings, the gynecology clinic assigned one physician and three mid-level providers to those patients walking in or calling in who were willing to be seen on the same day.

The clinics use a “pending appointment system” to instill confidence in those patients being sent home without a scheduled return appointment. The system prompts a call by the scheduler to patients who do not call in by the time that they are due to return to set up a same-day or next-day appointment.

Clinics currently aim to leave between 40 and 60 percent of slots open for advanced access appointments. The gynecology clinic leaves 80 percent of its slots open for same-day access. Particularly fragile patients and others who prefer to pre-schedule appointments are still allowed to do so.

Because increased access and continuity of care are equally important to Bellevue, the facility’s academic environment has added extra challenges in the implementation of advanced access. Historically, patients seeing interns and residents had higher no-show rates than patients seeing attending physicians. Because patients treated by residents are often handed off as residents complete their training or move on to different rotations, Bellevue organized residents into clusters. Patients calling in for an appointment can be scheduled with their own provider, but if that provider is not working on that day and the patient does not want to wait, an appointment can be scheduled with someone else in that same cluster. Ultimately, patients and providers in the cluster become familiar with each other.

The clinics that have implemented advanced access are marketing it aggressively and hoping that patients will trust the new system and find it more convenient. Historically, the most frequent complaint in patient satisfaction surveys has been long wait times to see a provider for a scheduled visit. The goal of the advanced access clinics is to reduce these appointment cycle times to 45 minutes and access to medical appointments to within 24 to 48 hours of the patient’s request. The new slogan for the initiative, “Call us to see us!” is widely displayed throughout the clinics, as well as in promotional materials such as flyers, t-shirts, key chains, and magnets.

The New York City Health and Hospitals Corporation’s goal is to implement advanced access system-wide. The timing is right, as all of HHC is moving toward electronic patient records for ambulatory services. Electronic patient records will
make the logistics of advanced access easier, as patient records will be available immediately when appointments are scheduled on very short notice. A team of consultants is currently developing a manual to assist medical directors at other facilities in implementing advanced access.

**Parkland Health & Hospital System**  
**Dallas, Texas**

Through formal patient satisfaction surveys and other feedback from both patients and employees, the Parkland Health & Hospital System’s clinics learned that patients were generally dissatisfied with telephone access, wait times at clinic appointments, and lack of access to appointments with their preferred physicians. After coming across the article “Same-Day Appointments: Exploding the Access Paradigm” by Murray and Tantau, the ambulatory care leadership realized that the advanced access model could help to address patient complaints. The article was shared with the associate medical directors and the physician leadership at each of the health system’s nine community primary care clinics.42

Advanced access was piloted at the first location in December 2000. The site spent approximately one month preparing for implementation. Most of this time was spent making adjustments to the appointment scheduling system and educating staff and patients about the new system. Advanced access was quickly adopted at seven additional sites after some education and dissemination about advanced access at management meetings. These sites began going live with advanced access in March 2001, with the last site beginning in July 2001. Although the transition to advanced access was not simultaneous at all of these sites, there was so much enthusiasm for this new idea that sites did not wait for “lessons learned” from other sites. As a result, there is still quite a bit of tweaking and fine-tuning going on throughout the system.

Parkland’s ambulatory care leaders quickly learned that operational issues rise to the top when implementing advanced access. Across sites, phone systems had to be upgraded in order to handle increased call volumes. Although the clinics generally had sufficient support staff, they had insufficient telephone capacity with four incoming lines. Two additional telephone lines had to be added at each health center.

In order to work down the appointment backlog, the clinics stopped booking appointments more than two weeks in advance, and already-scheduled patients were brought in several days earlier than previously scheduled. Additional clinical teams (‘float teams’) were brought in to help work down the backlog of scheduled appointments. These float teams are made up of full-time physicians and nurses that the health system employs to work in different areas as needed. Providers also began the practice of “max-packing,” which entails addressing all of a patient’s potential health needs in one appointment in order to obtain the maximum benefit from the scheduled time and prevent unnecessary follow-up.

Even before the health system began to implement advanced access, medical staff was organized into “care teams,” or clusters of providers and support staff. Care teams are assigned panels of patients, and patients experience greater continuity

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42 The health system also operates nine school-based clinics, but these have not implemented advanced access because they are essentially walk-in clinics and their volumes are relatively small.
in their care because they see a provider with whom they are familiar in instances where their primary care physician is not available. Since advanced access sites no longer have urgent care set-ups, nurses and nurse practitioners that once spent time doing telephone triage now spend more time on direct patient care as part of these care teams.

The greatest challenge accompanying the implementation of advanced access has been the influx of new patients at most of Parkland’s clinics. Most sites are not currently scheduling new patients for same-day appointments, although that is the ultimate goal. Other challenges include advanced access for geriatric patients, who need “semi-specialty” care, and for newborn pediatric patients, for whom first year follow-up care is critical due to the immunization schedule.

While still in its early stages, Parkland considers advanced access to be a success. Although the most recent patient satisfaction survey was completed too early to really show the effects of advanced access on patient satisfaction, informal feedback from both patients and staff has been very positive. On average, across the eight sites that have implemented the model, no-show rates for adults have decreased from 40 to 45 percent to 15 to 20 percent. No-show rates for pediatric patients are below 10 percent. Although clinics are still working on providing same-day access to new patients, existing patients are generally able to obtain same-day appointments. Since no-show rates have decreased and patients are having an easier time scheduling appointments, providers feel that patients are actually getting better care under the new system.

University Hospital, The University of New Mexico Health Sciences Center
Albuquerque, New Mexico

Over the last four months, ambulatory care leaders at University Hospital (UH) have been preparing for implementation of advanced access at the health system’s internal medicine and family practice clinics. Concerned about an appointment no-show rate of over 30 percent and an emergency room overly crowded with patients seeking routine care, the Primary Care Leadership Team introduced the concept of advanced access to the Executive Director and administrative leadership. The health system’s leadership fully supports the effort to move the community primary care clinics, and eventually the on-site specialty care clinics, to an advanced access system.

Ambulatory care leaders, medical directors and clinic nurse managers have worked closely with ambulatory care staff from St. Joseph’s Medical Center, a private hospital in town that successfully implemented advanced access. Though technically a competitor for patients with UH, St. Joseph’s has welcomed UH’s administration and ambulatory care staff during site visits and has been very willing to provide guidance during the transition.

UH is using a centralized model for data collection in preparation for the implementation of advanced access. Its Office of Practice Support Services is performing the operational assessments and data gathering that needs to occur in order to lay the groundwork for advanced access. This office is currently in the process of examining pent-up demand at each of the system’s 10 community clinics. It is looking at measures such as average appointments per patient per year and wait times until the next available appointment for different appointment
types. An advanced access subcommittee, which includes ambulatory care leaders, support staff, and a provider representative, is meeting every two weeks to design the implementation and eventual roll-out of advanced access.

The site that has been chosen to pilot advanced access is a fairly busy clinic; located close to the hospital campus, its providers and its support staff are interested in innovative practices and are willing to lead this effort. Ambulatory care leaders believe that implementation of advanced access at a clinic in close proximity to the hospital will cause patients to choose a same-day clinic visit over an unnecessary emergency department visit. For this and other reasons, there is a great deal of enthusiasm surrounding this effort, and ambulatory care leaders are eager to learn from the experiences of the pilot site.
6. Lessons Learned

The concept of advanced access is still relatively new to NAPH members, but many have exhibited great interest in its potential to improve patient, physician, and office staff satisfaction. Although it is still too early for them to determine whether the model delivers everything that it promises, those institutions that have implemented or piloted advanced access have experienced almost immediate reductions in patient no-show rates. Most also received some feedback about improved patient, provider, and staff satisfaction.

The experiences of those sites featured as case studies, as well as the rest of those interviewed, leave us with the following lessons for other institutions that may be considering advanced access as a way to re-engineer outpatient operations:

- **Leadership is everything.** Implementing advanced access entails making fundamental changes in the way outpatient care is organized and delivered. In order for the initiative to gain the necessary credibility among providers, there must be a clear message from the CEO and ambulatory care leadership about the role of advanced access in meeting the institution’s strategic objectives. At the clinic level, it is imperative to have the right individual leading the transition to advanced access. This person must have the will and determination to obtain buy-in and consensus from affected providers. This leader must also be able to keep the implementation process moving as challenges come up or mistakes are made.

- **Don’t use the excuse that you don’t have the latest technology to delay implementation.** Although having the most technologically advanced scheduling, medical record, and reporting systems would make implementation of advanced access easier, these features are not essential for a successful implementation. The calculations necessary for monitoring and predicting capacity and demand are relatively straightforward and can be done even if a clinic is working with a paper schedule. Medical records can be pulled on short notice if a system is in place to keep files organized and accessible.

- **The hardest part is taking the first few steps. Don’t be discouraged by a difficult transition.** Making the commitment to move toward an advanced access system is likely to entail making sacrifices in the short run. Clinics may need to extend their hours while the backlog is being worked down. Schedulers and other support staff will need spend time explaining the new scheduling system to patients, which may prove to be especially difficult if language barriers exist. Providers may need to re-arrange their schedules in order to meet periods of high patient demand. Although these issues may make things more difficult in the short run, those who have made it through believe that it pays off in the end.

- **Clinics in academic settings will need to take additional steps to improve continuity of care.** Under advanced access, clinics with full-time providers should strive to provide patients with same-day access to their PCP. Clinics that rely on part-time clinicians and medical residents will need to create
continuity by organizing providers into teams. These clinics should strive to provide patients with same-day access to their PCP or a member of their team.

• **There is always hidden capacity…find it!** When first analyzing demand and capacity, safety net systems may think that they do not have the necessary resources to meet incoming demand without pushing it out into the future. In fact, this will usually not be the case. Systems may find hidden capacity in many ways, including ensuring that providers are not spending valuable time on paperwork that can be completed by support staff, identifying unused exam rooms, and addressing late arrivals that cause providers to run behind schedule.

• **Start small.** Piloting a new initiative such as advanced access can help an institution come up with solutions to unforeseen circumstances before the new system is implemented on a large scale. Depending on the size of the clinic or system, advanced access can be piloted at an entire clinic or with a group of physicians within a clinic. If the pilot site or group experiences early successes, it can help build enthusiasm for the new initiative.

• **Once advanced access is in place, work to maintain it.** Do not assume that once advanced access is implemented, it will maintain itself. It is important to continue monitoring demand and supply, as their patterns may slowly start to change.
Appendix:
Interview with Mark Murray, MD, MPA

Mark Murray, MD, MPA, was instrumental in developing and implementing the principles of advanced access while serving as Director of Operations for the Department of Adult Primary Care at Kaiser Permanente in the North Sacramento Valley, in California. Dr. Murray is recognized as an international authority on the development of access systems in health care and has helped numerous academic health centers, community health centers, and fee-for-service groups in implementing the principles of advanced access. He also works on access improvement initiatives with the Institute for Healthcare Improvement and other groups. Dr. Murray is a Principal with the consulting firm of Murray, Tantau & Associates. Ingrid Singer conducted this interview with Dr. Murray on August 4, 2001.

What led you to develop the concept of advanced access?

I was managing a large primary care department for Kaiser Permanente in northern California. We had about a quarter of a million patients, over 100 physicians, and 400 support staff. Patients, providers, and staff shared a common discontent that centered around long waits, delays, and bottlenecks in the system. Patients complained about the long waits for appointments and their inability to see their own physicians when they were ill. Providers were unhappy with the lack of continuity in their patients’ care. Staff was frustrated by their inability to schedule appointments because providers’ schedules were saturated. Patients, dissatisfied by the lack of access, started to leave the practice.

After countless unsuccessful attempts at tweaking the system, we realized that it had to be rebuilt. That’s where advanced access came in.

How does advanced access differ from the traditional model of providing services?

In health care, demand is typically classified as “urgent,” “non-urgent,” and “return.” In a traditional model, routine and return cases are scheduled in advance, and urgent cases are squeezed in by double-booking and triple-booking physicians. The result is long delays and appointment cycle times that cause dissatisfaction among patients, physicians, and staff. Triaging capabilities are a necessity in this type of system, and patients who call in for non-urgent appointments are sent to the end of a long queue.

The carve-out model is an improvement over the traditional model, but it is still not advanced access. Under a carve-out system, a fraction of same-day appointment slots are reserved for urgent patients. Although this takes away some of the need for double-booking, non-urgent patients continue to experience long waits when scheduling an appointment with their physician.
In an advanced access system, supply and demand are balanced in such a way that patients can schedule same day appointments regardless of whether their visit is urgent or routine. The motto for this system is, “Do today’s work today.”

**Given that advanced access was designed in a managed care environment, are there special challenges created when a provider is not working with a defined population and there are low barriers to entry?**

The original ideas were developed at Kaiser, and there were certainly some advantages to trying out these principles in a closed system. The principles were refined in different environments with other special challenges. The more challenges a practice has, the greater the need for this sort of system. It is the best way to practice.

Patients are tired of waiting to see their physicians. By reducing waits and minimizing delays, you improve satisfaction among patients, providers, and staff. Not only do appointment “show” rates improve with advanced access, but clinical care can improve dramatically. Revenues can also improve when patients are not asked to wait. Advanced access is a set of principles designed to take wait times out of the system. It is all about supply and demand. If one is greater than the other, they need to be balanced.

**What do you see as some of the attitudes that need to be overcome to make the implementation of advanced access successful?**

When providers look at long waiting times, they think that they have insufficient resources. This is not necessarily the case. If the wait time to see a provider is one month, and it has always been one month, that wait time can be eliminated by increasing capacity in the short run and addressing demand as it comes in. Before long, patients should be able to obtain same-day access. The problem is that providers, especially those in hospital-based practices, believe that short waiting times will signal the administration that they can take away resources. Good systems that successfully balance supply and demand often end up being punished.

**Do safety net hospitals and teaching institutions face special challenges when implementing advanced access in their outpatient departments?**

There are two special challenges that arise when implementing any sort of access improvement initiative in a hospital-based university setting. The first has to do with sporadic supply resulting from the high volume of medical residents and part-time providers. The second has to do with competing priorities. The hospital or health system’s leadership needs to make a commitment to embrace the principles of advanced access. These two challenges have a greater effect on implementation efforts than those challenges posed by serving sick and disadvantaged patient populations.
Is it more difficult to implement advanced access in specialty settings, compared to primary care settings? What about subspecialties that do not run clinics every day?

Specialty practices face three challenges. First, since they are referred to specialists by primary care physicians, patients may have difficulty fitting in a second doctor’s visit in the same day. Second, patients often do not want to see a specialist the same day. Third, the visit to the specialist usually entails performing a procedure.

Although the advanced access principles may be the same in a specialty practice, you would pick a period of time longer than a day (for example, a rolling week) to balance demand and supply. Likewise, in a subspecialty clinic, you would pick a reasonable unit of time (depending on how often the clinic operates) within which to balance demand and supply.

Specialists sometimes make a habit of scheduling patients far out into the future if they do not see an immediate medical need. Since at that point in the future the practice will need to squeeze in urgent cases, these providers create the need for costly triage by postponing today’s work until tomorrow.

Are there any operational systems that must always be in place in order to successfully implement advanced access?

Not having electronic medical records and the latest phone and scheduling systems makes implementation more difficult, but not impossible. The lack of these systems should not be used as an excuse to delay addressing existing problems.

In order to work down an appointment backlog, is it necessary to bring in patients earlier than originally scheduled?

Access improvement is more than backlog reduction. It is not necessary to reschedule patients and bring them in earlier in order to work down the backlog. The most important thing is to increase capacity in the short run to take care of additional demand as it comes in, as opposed to sending it to the end of the queue.

In the literature, you describe patients who need advance appointments for follow-up as “good backlog.” Does it make sense to ask patients with chronic conditions to call back for a same-day appointment at some point in the future when they are due for follow-up care, as opposed to scheduling them in advance?

The key to advanced access is to have open space in the future, but it is a mistake to decide that you will not pre-schedule anybody. Good backlog should not clog up the future. On the morning that those return patients call back to schedule their same-day follow-up appointments, they will clog up the phones. Unless a chronic patient’s condition is improved, or unless he or she will not need follow-up within the next three to four months, you should go ahead and schedule the return appointment in advance.
It seems that there is a great deal that practices need to do in order to prepare for implementation of advanced access. Once these principles are in place, what needs to be done to maintain the system?

Practices need to understand their demand and supply and continuously measure them. Contingency plans (the daily plans that help keep the balance in place) need to be refined. Perhaps most importantly, the commitment from the practice’s or organization’s leadership must remain strong.
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Memorial Healthcare System (Hollywood FL)
  Joe DiMaggio Children’s Hospital at Memorial (Hollywood FL)
  Memorial Hospital Pembroke (Pembroke Pines FL)
  Memorial Hospital West (Pembroke Pines FL)
  Memorial Regional Hospital (Hollywood FL)
Metro Nashville General Hospital (Nashville TN)
The MetroHealth System (Cleveland OH)
Mississippi Public Hospital Coalition (Gulfport MS)
   Singing River Hospital (Pascagoula MS)
   Southwest Mississippi Regional Medical Center (McComb MS)
   Memorial Hospital at Gulfport (Gulfport MS)
   Field Memorial Community Hospital (Centerville MS)
Nassau University Medical Center (East Meadow NY)
Natividad Medical Center (Salinas CA)
New York City Health and Hospitals Corporation (New York NY)
   Bellevue Hospital Center (New York NY)
   Coler-Goldwater Memorial Hospital (Roosevelt Island NY)
   Coney Island Hospital (Brooklyn NY)
   Elmhurst Hospital Center (Elmhurst NY)
   Gouverneur Nursing and Diagnostic & Treatment Center (New York NY)
   Harlem Hospital Center (New York NY)
   Jacobi Medical Center (Bronx NY)
   Kings County Hospital (Brooklyn NY)
   Lincoln Medical and Mental Health Center (Bronx NY)
   Metropolitan Hospital Center (New York NY)
   North Central Bronx Hospital (Bronx NY)
   Queens Hospital Center (Jamaica NY)
   Sea View Hospital Rehabilitation Center & Home (Staten Island NY)
   Woodhull Medical and Mental Health Center (Brooklyn NY)
North Broward Hospital District (Fort Lauderdale FL)
   Broward General Medical Center (Fort Lauderdale FL)
   Coral Springs Medical Center (Coral Springs FL)
   Imperial Point Medical Center (Imperial Point FL)
   North Broward Medical Center (Pompano Beach FL)
The Ohio State University Hospital (Columbus OH)
Parkland Health & Hospital System (Dallas TX)
Regional Medical Center at Memphis (Memphis TN)
Riverside County Regional Medical Center (Riverside CA)
San Joaquin General Hospital (Stockton CA)
San Mateo County General Hospital (San Mateo CA)
Santa Clara Valley Health & Hospital System (San Jose CA)
Thomason General Hospital (El Paso TX)
Truman Medical Centers (Kansas City MO)
  TMC Hospital Hill (Kansas City MO)
  TMC Lakewood (Kansas City MO)
  TMC Behavioral Health (Kansas City MO)
UMDNJ-University Hospital (Newark NJ)
University HealthSystem Consortium (Oak Brook IL)
University Hospital, The University of New Mexico Health Sciences Center (Albuquerque NM)
University Hospital of Brooklyn (Brooklyn NY)
University Medical Center of Southern Nevada (Las Vegas NV)
University of Arkansas for Medical Sciences (Little Rock AR)
University of Chicago Hospitals & Health System (Chicago IL)
University of Colorado Hospital (Denver CO)
University of Missouri Health Care (Columbia MO)
University of Texas System (Austin TX)
  Health Center at Tyler (Tyler TX)
  M.D. Anderson Cancer Center (Houston TX)
  Medical Branch at Galveston (Galveston TX)
VCU Health System Authority (Richmond VA)
Westchester Medical Center (Valhalla NY)
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