Advanced Clinic Access

Prepared for the VHA by the Institute for Healthcare Improvement

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Introduction

An access problem is a delay problem. The goal of the VHA's Advanced Clinic Access Initiative is to build a system in which patients have the opportunity to see their own providers when they choose.

In order to do this, each clinic must manage its total resources (supply) to provide care. When the resources are managed well, this creates openness or space in the clinic (capacity). In an optimal system of "advanced clinic access," an organization provides enough openness or space in the clinic (capacity) for health services to meet the demand of its patient population at the time the demand occurs.

This is a fundamental shift from the past. Traditionally, health care organizations have viewed the demand for health care as insatiable. Therefore, the typical approach to access was predicated on the false belief that barriers needed to be constructed in order not to be overwhelmed by patient demand. Improving access therefore entailed complex scheduling systems, a wide variety of appointment types and lengths, long waits to see providers, the transfer of demand to other areas of the health care system such as urgent care or the emergency department, and elaborate triage systems that attempted to distinguish patients who could wait for care from those who could not.

Advanced Clinic Access

In contrast to traditional methods of dealing with access, Advanced Clinic Access seeks not to control the daily patient demand for care, but rather to predict it and respond to it. This model is based on the principle that when supply and demand are in balance (or equilibrium) there is no need for waits in the system. In traditional systems, demand is divided into urgent and routine. This division creates a delay by creating separate lines (or queues) for different types of patients. Removing the queues removes the delay. An Advanced Clinic Access system is designed to eliminate waiting times.

There are three strategies for building a sustainable system for Advanced Clinic Access:

SHAPE DEMAND

Improving access is all about increasing the ability of the system to predict and absorb demand (patients' requests for care). Reducing the amount of demand makes it easier for the system to absorb current or future levels of demand.

MATCH SUPPLY AND DEMAND

A clinic with Advanced Clinic Access is one where supply and demand are in equilibrium. If the demand is greater than supply, there is a delay in providing care. If the supply is greater than demand, then resources are being wasted. When supply and demand are matched, there is no delay in providing care.

REDESIGN THE SYSTEM TO INCREASE SUPPLY

One way to increase a clinic's ability to absorb more demand is to make the clinic more efficient. If an appointment now takes 45 minutes, but can be redesigned to take 20 minutes, then more patients can be seen on a given day. This doesn't necessarily mean working faster, but working smarter. It doesn't mean less time with patients; it means more quality time with patients.

Although the strategies are not arranged in a sequential order, most clinics find it useful to (1) know the extent of access delays, (2) begin working down the backlog of appointments, and (3) match supply and demand by reducing or shaping demand and redesigning the system to increase supply.

Change Concepts for Advanced Clinic Access

SHAPE DEMAND

1. Work Down the Backlog
- Gain immediate capacity.
- Temporarily add appointment slots.

2. Reduce demand

PRIMARY CARE
- Maximize activity at appointments.
- Extend intervals for return appointments.
- Create alternatives to traditional face-to-face interactions
- Optimize patient involvement in care.

SPECIALTY CARE
- Build service agreements between primary and specialty care.
- Extend intervals for return appointments.
- Reduce demand for physician visits by optimizing team roles.
- Discharge patients to primary care from specialty care.
- Create alternatives to traditional face-to-face interactions.

MATCH SUPPLY AND DEMAND

3. Understand Supply and Demand

PRIMARY CARE
- Know your demand.
- Know your supply.
- Consider doing today's work today.
- Make panel size equitable based on clinical FTE.

SPECIALTY CARE
- Know your demand.
- Know your supply.
- Consider doing today's work today.
- Establish input equity for specialty clinics.

4. Reduce Appointment types
- Use only a small number of appointment types.
- Standardize appointment lengths.

5. Plan for Contingencies
- Manage demand variation proactively.
- Develop flexible, multi-skilled staff.
- Anticipate unusual but expected events.

REDESIGN THE SYSTEM TO INCREASE SUPPLY

6. Manage the Constraint
- Identify the constraint.
- Drive unnecessary work away from the constraint.

7. Optimize the Care Team
- Ensure all roles in practice are maximized to meet patient needs.
- Use standard protocols to optimize use of other providers.
- Separate responsibilities for phone triage, patient flow, and paper flow.

8. Synchronize Patient, Provider, and Information
- Start the first AM and PM appointment on time.
- Do patient registration by phone when confirming the patient appointment.
- Check the chart to make sure it is complete, accurate, and present for the appointment.
- Use health prompts to anticipate full potential of today's need.
- Make sure that rooming criteria include having the patient ready.

9. Predict and Anticipate Patient Needs at Time of Appointment
- Use regular "huddles" to anticipate and plan for contingencies.
- Communicate among care delivery team throughout the day.

10. Optimize Rooms and Equipment
- Use open rooming to maximize flexibility.
- Standardize supplies in exam rooms and keep them stocked at all times.

1. Work Down the Backlog

"Backlog" consists of all of the appointments that are on the future schedule for a particular clinic. These appointments represent work from previous days that has been put off into the future. This backlog of appointments clogs clinic schedules, taking up slots that could be used for patients requesting appointments with their providers. A clinic cannot successfully improve access without working down the backlog.

It is sometimes useful to think of backlog as a reservoir of unmet demand. Water comes into the reservoir (patient demand), and water goes out of the reservoir (services provided). If water comes in at the same rate as it goes out, then the level of water in the reservoir remains constant. If somehow the reservoir could be drained, then the water would flow smoothly with no need for a reservoir. Working down the backlog is like draining the clinic's reservoir of built-up demand. Once the reservoir of appointments has been reduced, there will be no delay in access as long as demand and supply are in balance.

Not all appointments on the future schedule are the same. "Good" backlog consists of appointments in the future that need to be there, including:

- Provider discretionary return appointments
- Patient choice (patients call in today, but want to come in tomorrow)
- Automatic appointments at certain intervals to manage specific types of patients

"Bad" backlog consists of appointments for anyone who was deflected into the future who could have been seen today. Avoid bad backlog; it fills appointment slots in the future that could be used to meet patient demand each day.

➤ **Gain immediate capacity.**
Review the patients who have future appointments to see if there are other ways to meet their needs. Physicians can ask the following questions about patients already on their schedules:

- There's a patient on my schedule next month that I am seeing today. Can I take care of that patient's needs today so that they won't need next month's appointment? I could then schedule them (if necessary) for a new appointment in three months.
- Is there someone on my schedule who I can cancel, take care of with a phone call, handle in a different way by compressing multiple follow-ups into one, or have someone else on the care team contact?
- Does this patient really need an appointment? (This is someone who's coming in for a medicine refill. This is someone I just saw last week. This is someone who's in the hospital. This is someone who is really not my patient, etc.) These patients' needs could be handled in ways other than a scheduled appointment.

➤ **Temporarily add appointment slots.**
Preventing new backlog (not putting today's work off into the future) involves both reducing future demand and gaining capacity in the system. Clinics can prevent future backlog by temporarily adding appointment slots to the schedule, e.g., by adding weekend or evening appointments or extra appointments during the day. Sometimes additional staff are needed on a temporary basis to reduce the backlog and prevent future backlog from being created. Gaining capacity allows the clinic to do more of today's work today, thereby reducing the amount of work that is being put off into the future and preventing new backlog from being created.

2. Reduce Demand

Improving access is all about increasing the ability of the system to predict and absorb demand (patients' requests for care). Reducing the amount of demand makes it easier for the system to absorb current or future levels of demand.

One of the key ways a health care system can improve access is by reducing unnecessary demand for various services so that those needing a particular service can receive it in a timely way. Although the general concepts for reducing demand apply to both primary care and specialty clinics, some of the specific changes apply to one rather than the other or are applied in different ways.

PRIMARY CARE

➤ **Maximize activity at each appointment.**
This is often called "max-packing." It means doing as much for patients while they are in the office for any given visit, in order to reduce future work (in many cases, eliminating the need for extra appointments). Some ways to do this include the following:

- Look for anyone who is on the schedule today who has also booked an appointment in the future, and take care of his or her future needs during today's visit.
- Use a checklist of preventive care to anticipate a patient's future needs, and take care of those needs today whenever possible.

➤ **Extend intervals for return appointments.**
The interval for a return appointment depends on the patient's needs and the discretion of the provider. Physicians should consider what is really necessary for the management of the patient, rather than "the usual" return visit interval. When medically appropriate, extending intervals for return appointments adds capacity to the system because fewer future appointment slots are filled.

Some immediate steps that a physician can take to reduce return intervals include:

- Eliminate automatic return visits at standard intervals (e.g., all patients are told to come back in one month).
- For patients who may need a follow-up appointment, develop a system to check with the patient two weeks prior to when the follow-up appointment would have occurred. If the patient's condition warrants a visit, the appointment can be booked at that time. Otherwise, an additional follow-up contact with the patient can be made by phone.
- Create an alternative way for patients to refill medications (e.g., pharmacy clinic) or receive lab results (e.g., nurse calls patients with results).
- Establish cancellation and no-show policies that are fair to patients but that don't generate unnecessary demand (i.e., don't repeatedly make new appointments for patients who cancel or fail to show up for appointments).
- Use telephone contact, initiated either by the clinic or the patient, to check up on patient status in lieu of an appointment.

Create alternatives to traditional face-to-face interactions.
Several types of interactions between providers and patients can take the place of a traditional one-on-one clinic visit with a physician, including the following:

- Physicians can conduct telephone consults with patients.
- Nurses can staff telephone advice lines.
- E-mail, Tele-medicine, and Internet communication between physicians or nurses and patients can be used to manage patients with chronic conditions such as diabetes, Chronic Obstructive Pulmonary Disease (COPD), and congestive heart failure (CHF).
- Nurse clinics can be used to manage patients with chronic conditions such as hypertension and diabetes, and for certain procedures such as sigmoidoscopies and stress tests. See more detailed discussion of nurse clinics under Optimize the Care Team.
- Group visits, in which several patients meet together with a provider and/or the care team, are an effective method not only for reducing demand but also for providing increased continuity of care and a supportive social network for patients. In a group visit, the physician might meet briefly with the group, but the patient receives all the services of a traditional visit by utilizing other members of the care team. For example, a nurse practitioner might conduct individual patient exams, while the diabetic educator leads a discussion on diet and exercise.

Optimize patient involvement in care.
Clinics that promote patient self-management, particularly for chronic diseases, not only reduce unnecessary demand for visits, but also achieve better overall management of the patient's condition. For example, patients with COPD who understand how to manage their medications and what to do in an emergency are less likely to utilize the emergency or urgent care clinic for a preventable exacerbation. They are also less likely to use an office visit for something that they can manage on their own.

SPECIALTY CARE

Build service agreements between primary and specialty care.
Service agreements between primary care physicians and specialists define the list of conditions that should be taken care of in primary care and the process for making a prompt referral to specialty care if needed.

Service agreements benefit both primary care physicians and specialists. Primary care physicians are assured that their patients will be treated promptly by a specialist—either by appointment (ideally within 24 hours, typically within a week) or by an immediate phone consult if more appropriate, while specialists are assured that they will see only those patients who need to be seen by a specialist. Service agreements are not guidelines or referral criteria unilaterally disseminated from specialists to primary care providers; rather, they are built in partnership between primary care and specialty care.

Extend intervals for return appointments. (See discussion under Primary Care.)
Among specialists there is often a wider variation in return visit intervals and more personal preference for a particular interval length than in primary care. In spite of these differences, the same general concept applies to specialists as to primary care providers: patients should be given a return appointment when it is needed and at an interval that is clinically meaningful. One way to reduce the variation among providers who see the same types of patients is to share information about their return intervals. This should be done as a way to promote discussion and dialogue, not as a way to impose and standardize arbitrarily.

- **Reduce demand for physician visits by optimizing team roles.**
  Particularly in specialty care, non-physician providers can reduce the demand for physician visits by doing tasks or procedures that do not require a physician's level of expertise or training. (See Manage the Constraint and Optimize the Care Team for a detailed discussion of how to optimize team roles.) Some examples include the following:

  Audiology – Technicians perform initial screenings.

  Cardiology – Technicians or nurses conduct and monitor stress tests.

  Ophthalmology/Optometry – Technicians do eye screening; return visits for ophthalmology go to optometry rather than to ophthalmology.

  Orthopedics – PA's do pre-op workups and post-op rehab evaluations.

  Urology – PA's do pre- and post-op workups.

- **Discharge patients to primary care from specialty care.**
  Service agreements between primary and specialty care should include an understanding of when a patient is transferred back to the primary care physician following a specialty referral. The lack of a process for appropriate returns to primary care often creates a "Velcro" effect in which referred patients become the permanent responsibility of the specialist. Transferring patients back to primary care when clinically appropriate creates capacity for specialists to see more patients that need to be seen.

  Clinicians should educate and prepare patients so that they understand that the best place for them to continue receiving care is in primary care; if they should need the specialist in the future, they will be able to return without delay.

- **Create alternatives to traditional face-to-face interactions. (See discussion under Primary Care.)**
  Group visits are a method of providing care that applies to specialty clinics as well as to primary care clinics. Examples include group visits for patients with diabetes who are under the care of a nephrologist, and follow-up appointments after procedures or surgeries.

3. Understand Supply and Demand

The experience of many health care organizations that have looked at supply and demand has taught us not only that demand is not really insatiable, but also that it is highly predictable. In fact, the demand for any kind of service—appointment, advice, or message to provider—can be predicted accurately based on the population, the scope of provider practice and, over time, the particular practice style of each provider. An improved access system then uses these predictions as the framework upon which to construct a rational method of responding to the needs of a population of patients with its supply for any specific service.

PRIMARY CARE

- **Know your demand.**
  The only way to really know your demand is to measure it. True demand is the total number of patient requests received on any given day from both internal (return visits generated today) and external sources (phone calls, walk-ins, deflections to urgent care, and other sources of patient requests for services such as faxes, e-mails, etc.).

- **Know your supply.**
  Supply refers to the total resources (people, equipment, offices and exam rooms) available to a clinic. When the total resources are managed well, a clinic creates openness in its schedule or space to care for patients. Patients experience this openness primarily as the availability of clinic appointments (capacity). Capacity is the total hours of clinician time devoted to appointments.

- **Consider doing today's work today.**
  Once you know your true supply and demand, you can determine a course of action. If the overall pattern of demand and supply shows a mismatch (e.g., demand exceeds supply), then steps need to be taken to bring demand and supply into equilibrium. These steps include the Key Changes discussed in the sections Shape Demand and Redesign the System to Increase Supply.

  If the overall pattern of demand and supply (looking at weekly and monthly trends) shows a balance between the two, then clinics have a choice as to how to respond to (or absorb) patient demand on a daily basis. They can establish a "carve-out" system or they can "do today's work today" (Advanced Clinic Access).

  A carve-out system holds some appointments each day in anticipation of same-day demand. This may help initially to meet daily demand, but because holding appointments in effect closes slots in the future (e.g., every afternoon's 3-5 PM appointments are being held for same-day requests) it actually constrains the system by reducing the number of slots available to meet today's demand. This means that with carve-out systems, some demand will still be put off into the future (patients given an appointment on another day).

  An Advanced Clinic Access system, unlike a carve-out system, takes care of each day's demand on the day it is generated. In clinics with Advanced Clinic Access, the only appointments that are on the books at the beginning of each day are the return appointments that were generated by physician discretion or patient preference on a previous day. This provides maximum flexibility in the system to absorb daily demand.

- **Make panel size equitable, based on clinical FTE.**
  Panel size is an outcome of an Advanced Clinic Access system, not a goal. The goal is good panel management: physicians caring for a population of patients. Panel size is the outcome of doing a good job of panel management, rather than an end in itself.

  From the physician's perspective, equitable panel size ensures that he or she will be able to offer good care in a timely way to a reasonable number of patients. An agreed-upon panel for each primary care provider assures the physician working on improved access that the demand for services will not exceed his or her capacity to provide them.

SPECIALTY CARE

- **Know your demand. (Same as for Primary Care)**
  Some of the most common sources of demand for specialty care clinics include consultations, rebookings, walk-ins, and phone calls from other providers.

- **Know your supply. (Same as for Primary Care)**
  In specialty clinics, it is often difficult to get an overview of when all the physicians are available because specialists are more likely than primary care physicians to be in clinic only on specific days each week and may concentrate only on specific procedures and/or conditions. In this case, it is helpful to create a monthly calendar showing system-wide schedules and availability for each physician.

- **Consider doing today's work today.**
  The same principles apply to specialty care as for primary care: If demand and supply are in equilibrium, then clinics should be able to offer appointments to new referrals within a 24-hour period. However, in specialty clinics, there may be a necessary gap between the time the demand is generated (referral is made) and when the patient is seen by the specialist. This necessary gap may be due to a test or procedure that is needed prior to the appointment with the specialist, or the geographic distance between the primary care clinic and the specialty clinic. The delay can be reduced by coordinating testing and procedures with support or ancillary services and by utilizing direct booking from primary care.

- **Establish input equity for specialty clinics.**
  Because patient assignments to specialists are based on referrals, specialists do not technically manage a panel of patients in the same way that primary care providers do.

  "Input equity" means that new patients are assigned to specialist providers based on (1) the current number of patients a specialist is managing, (2) his or her time in the office each week, and (3) any subspecialty expertise or skills that a particular provider may have.

4. Reduce Appointment Types

Having a lot of appointment types actually increases total delay in the system because each appointment type creates its own differential delay and queue. For example, if a physician only takes physicals on Tuesday afternoons, a patient needing a physical may have to wait several weeks until a Tuesday afternoon slot is available.

In addition, each appointment type creates it own inclusion and exclusion criteria, i.e., each appointment type requires its own criteria to determine who gets in and who doesn't. The more criteria, the more time it takes to put people in the line.

- **Use only a small number of appointment types.**
  To reduce these differential delays, some clinics utilize a carve-out system (in which some appointments are held for same-day demand) and standardize to a few appointment types—for example, urgent (same-day) vs. routine (future) and short vs. long (physical). This automatically introduces more flexibility into the scheduling system.

  Advanced Clinic Access systems make no distinction between urgent and routine appointments. For primary care, the only distinctions are whether the "provider is present" or the "provider is absent" and short vs. long appointments. For specialty clinics, consider reducing appointment types to two: (1) Consults, routines and returns, and (2) Procedures (requiring special room set-up or equipment). Reducing appointment types simplifies telephone appointment triage, allows more flexibility for patients, and reduces queues.

- **Standardize appointment lengths.**
  The system that allows the most flexibility for scheduling is one that has one basic appointment length (e.g., 15 minutes or 20 minutes) that can be utilized either as a single unit or grouped together for a longer appointment as needed (e.g., two 15-minute appointments can be combined to create a 30-minute appointment for a patient with a particularly complicated reason for the office visit). In addition, times for longer appointments should not be predetermined for certain days, but should be applied as needed.

5. Plan for Contingencies

Even if the supply and demand in a clinic are generally in balance, there will be times when there is a surge in demand (demand outstrips supply) that is either expected (e.g., flu season) or unexpected (e.g., a lot of walk-ins on one day). Expected and unexpected variations in supply can also occur (e.g., vacations or emergency sick leaves.) In a traditional system, patients are often made to absorb the consequences of the mismatch between supply and demand (they have to wait). For clinics with Advanced Clinic Access, contingency plans shift the variation from the demand (patient) side to the supply (provider) side.

- **Manage demand variation proactively.**
  The first step in managing variation in demand is to know the general patterns of supply and demand in the clinic. Understanding these patterns allows the clinic staff to predict and anticipate variations that may occur. See Match Supply and Demand for a discussion of how to measure and track supply and demand over time.

  Once the patterns of supply and demand are known, the clinic can plan to add more capacity at certain times based on predictions. For example, every year there is an increase in demand for appointments during January and February as the cold and flu season hits. Clinics can anticipate this increase in demand and make arrangements for physicians to add appointment times to their schedules during these months. For days when supply is greater than demand, clinics have agreed-upon assignments for staff such as max-packing visits that are scheduled, team meetings, etc., so that staff time can be used productively.

- **Develop flexible, multi-skilled staff.**
  The ability of a clinic to respond to expected or unexpected surges in demand depends to a large extent on the flexibility of the staff to adjust their responsibilities during these periods. For example, some clinics have a float team that is trained to cover responsibilities throughout the clinic when needed.

- **Anticipate unusual but expected events.**
  A number of situations occur relatively infrequently, but not completely unexpectedly, such as the need for a patient to be admitted directly from the clinic to the hospital. To avoid disrupting the normal flow of clinic practice, clinics agree upon a standard protocol to follow for each event, including clear responsibilities for each staff member (e.g., clinic manager notifies ED of a probable admission as soon as a patient arrives in the clinic, etc.)

6. Manage the Constraint

One characteristic of systems is that there is always a constraint on the flow. A constraint, or bottleneck, is anything that restricts the throughput of patients into and through the clinic system. This occurs when the demand for a particular resource (e.g., rooms, providers, tests) is greater than its available supply. Managing the constraint increases the flow of patients through the clinic. Steps to take in managing the constraint in the clinic include the following:

- **Identify the constraint.**
  It is often difficult to identify a constraint by evaluating the demand and the capacity for each resource because they can be masked by constraints in other parts of the system. As an alternative, look for certain signals within the system. Where is material or information in short supply? Where are the longest waiting times to use a resource? Where are patients or staff waiting? These signals will serve as aids in identifying a constraint. As noted above, we usually expect the primary provider to be the constraint in our clinics, but it may not always be so.

- **Drive unnecessary work away from the constraint.**
  Prior to redesign, there may be several constraints in the clinic. However, in any system there is a constraint that is called "the rate-limiting step," i.e., the step that determines the rate at which work passes through the system. This should be the constraint with the most valuable and scarcest resources. The rate-limiting step should never be idle, ensuring that work flows smoothly through it. The focus should be on optimizing the capacity of the rate-limiting step, not on optimizing every resource in the system.

  In a clinic setting, the primary provider is often the rate-limiting step, because he or she does a number of things that uniquely add value to the system. Any work that the provider is doing that is not related specifically to his or her unique skills and expertise should be assigned to other members of the care team.

7. Optimize the Care Team

The specific mix of staff (number of physicians, nurses, assistants, technicians, clerks, etc.) will vary from clinic to clinic and determines the extent and type of work that can be driven away from the physician (the constraint). Staff mix is key to maximizing the capacity of the clinic.

The care team composition of each clinic emerges from a discussion of how the clinic (and ultimately the facility) decides to balance its supply and demand. The clinic has to understand the types of services it provides, and then decide who should be involved in the work and how the work should be divided. This approach begins with demand and adjusts supply to meet the demand (within the limits of clinic resources). This is different from an approach that sets an arbitrary care team mix and then tries to fit the demand into the supply.

- **Ensure all roles are maximized to meet patient needs.**
  A key concept to use in dividing clinic responsibilities is that all staff members should work to the highest level of their expertise and ability. This applies to mid-level providers, nurses, and other staff members as well as to physicians.

- **Use standard protocols to optimize the use of other providers.**
  One way to optimize staff abilities is to establish protocols for conditions and processes that can be clearly delineated. A standard process for flu and pneumococcal vaccinations can be established so that a nurse or other appropriate provider can administer shots according to established guidelines.

- **Separate responsibilities for phone triage, patient flow, and paper flow.**
  In a traditional clinic, individual nurses and other staff members are often responsible for multiple processes, including triaging patient requests for care, the flow of patients through the office, and providing the medical record or other paper work needed for the patient visit. Clinic systems often work best when the work for each of these tasks is clearly assigned to particular individuals. In this way, there is less opportunity for delays to build up within each of these separate processes.

8. Synchronize Patient, Provider, and Information

The production of goods and services in any system usually involves multiple stages operating at different times and different speeds. This often results in an overall process that is not well coordinated. Much time can be spent waiting for another stage to be completed. In a clinic, the major stages revolve around the presence of the patient, the provider, and the medical record, chart, and other information needed for the patient visit.

Identifying the synchronization point in the clinic process is the first step in being able to coordinate all the different stages of a patient visit. For a clinic, this is often when the physician or primary provider enters the exam room. This is the most important part of the clinic visit from the patient perspective and it is also the point where the knowledge and expertise of the physician or other provider (as a scarce resource) are best utilized. Steps to help staff synchronize clinic processes include the following:

- **Start the first AM and PM appointment on time.**
  Agree on what a specific clinic appointment time means. If the registration desk doesn't open until 8 AM, there is no way the patient can be placed in a room, have his or her history taken, and be ready to see the physician at 8 AM. If all agree that "8 AM appointment" means "physician sees patient at 8 AM," then tasks can be synchronized around that point and waiting times can be reduced.

- **Do patient registration by phone when confirming the patient appointment**
  Whenever possible obtain patient information prior to the day of an appointment. This removes work that needs to be done on the day of the appointment and allows for advance planning for special resources that might be needed to meet the patients' needs.

- **Check the chart to make sure it is complete, accurate, and present for the appointment.**
  Use a chart-check as an inspection step prior to the synchronization point (physician entering exam room) to reduce the chances that physicians (as a scarce resource) and patients (as the key customer) will be left waiting for necessary information (e.g., lab results or diagnostic tests, etc.) at the time of the visit.

- **Use health prompts to anticipate the full potential of today's need.**
  Preventive medicine guidelines are one example of prompts that can be embedded either electronically in CPRS or used manually to generate information that the care team needs on the day of the clinic visit, e.g., the prompt tells the care team that the patient may be due for a sigmoidoscopy, flu shot and pneumococcal vaccine, or a HbA1c test for diabetes.

- **Make sure that rooming criteria include having the patient ready**
  Rooming criteria check sheets help ensure that the patient is ready for the physician. Check sheets typically include such items as shoes off for a diabetes patient.

9. Predict and Anticipate Patient Needs at Time of Appointment

In order to ensure that both patient needs are met and that patients flow smoothly through the clinic process, staff look ahead on the schedule to identify patient needs for a given week or day. This advance planning allows the clinic staff time to arrange for specific equipment or make arrangements for tests that may be needed either prior to or at the time of the visit.

- **Use regular "huddles" to anticipate and plan for contingencies.**
  To conduct a "huddle," the care team gets together at a pre-determined time each day to look ahead on the schedule and anticipate the needs of the patients coming that today. For example, before the physician sees the patient, he or she may need a potassium test. Instead of waiting until the patient is in the exam room with the physician, the staff can have the patient go to the lab immediately after checking in at the clinic. In the meantime, the clinic staff can adjust the schedule because they know the patient won't be using the original appointment slot, but will need a slot 30 to 45 minutes later.

- **Communicate among the care delivery team throughout the day.**
  Quick huddles as well as visual displays of information are effective ways to make adjustments in the schedule, to coordinate emerging patient needs, or to reassign staff responsibilities. For example, use a large board in the clinic workroom to note patient appointments (including special needs) each day by provider and nursing staff assignments. This gives everyone the "big picture" of what's going on in the clinic each day so that people can pitch in and help when needed.

10. Optimize Rooms and Equipment

Fully utilizing rooms and equipment increases the number of patients that can be seen each day, contributing to increased supply for the clinic and the ability to meet patient demand for appointments.

- **Use open rooming to maximize flexibility.**
  Open rooming means that any provider can use any exam room. In some traditional clinics, certain exam rooms are assigned to specific physicians. For example, if a clinic has eight providers and each is assigned to two rooms, the clinic has a total of 16 exam rooms. On days when only five providers are in clinic, a traditional system would only use ten of the 16 available rooms because the rooms are matched to particular providers. To maximize the use of the rooms, all 16 rooms can be used on the day when only five providers are in clinic, increasing the flexibility of the clinic to rotate patients into available rooms to keep the flow moving.

- **Standardize supplies in exam rooms and keep them stocked at all times.**
  In order to use open rooming, the room set-up and the stocking of supplies and equipment has to be standardized. This means that no matter what exam room a provider walks into, everything is there and in the same place. When there is a need for specific equipment or supplies, such as in certain specialty clinics, mobile equipment or special supply trays can be brought into the room as needed. This allows for the standardized set-up of the rooms, while at the same time accommodating the need for specialized equipment or supplies.