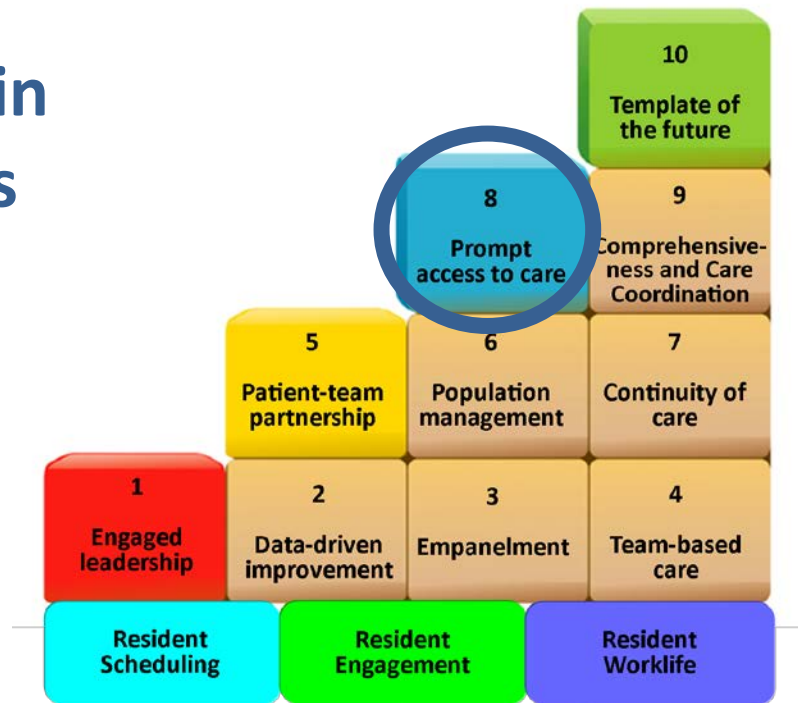


Toolkit for Access to Care in Teaching Clinics



Prompt access to care is a prominent objective for many primary care practices, and an essential building block for any health system to be high-performing.

This toolkit outlines some strategies to measure and improve access to care in teaching clinics.

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Strategies for Improving Access

Managing primary care clinic access requires a balance between clinic capacity (supply) and demand (Bodenheimer, 2018). There are many ways for patients to access medical care, including telephone or e-mail patient portal. This toolkit focuses on the most prominent component of access: in-person medical visits.

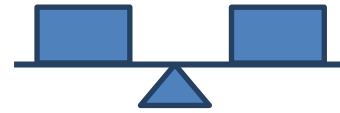


Figure 1: Good access depends on a balance between clinic capacity and appointment demand.

For a clinician (resident, faculty or advanced practice clinician) to achieve excellent access for her patients, it is best for that clinician's capacity to see patients be equal to her patients' demand for appointments.

Capacity (supply) for each clinician is the number of appointment slots per day times the number of days per year.

For example: if a third year resident sees eight patients per half-day clinic session and is in clinic 150 sessions per year, that resident's capacity is $8 \times 150 = 1200$ patient visits in a year.

Demand is theoretically estimated from daily records of: (1) the number of patient calls for appointments, (2) walk-ins, and (3) follow-up appointments generated by clinicians at the practice site. This is hard to do. More practically, demand can be estimated as a clinician's panel size times the average number of patient visits per year. The average number of patient visits per year can be based on historical data from your practice or national data such as the National Ambulatory Medical Care Survey (<https://www.cdc.gov/nchs/ahcd/index.htm>).

For example: if a third year resident has a panel of 500 patients who average 3 visits per year, the demand for that resident is $500 \times 3 = 1500$ visits per year.

In summary, the key equation for capacity = demand is
of patients per day x # of days per year = panel size x average visits per year per patient

In the example above, the resident's demand (1500 visits) is greater than her capacity (1200 visits) and access will be a problem.

1. Track it. Select a measure to understand your access status.

What measures should I use to understand our access?

Four common access measures are described below: % same-day appointments, % open capacity, third next available appointment (TNAA), and patient report. TNAA is a commonly used metric; however, the key is to pick a measure that your organization can easily track.

See appendix 1 (page 13) for example calculations of each measure.

- **% Same-day appointments:** Count the number of appointments scheduled today or yesterday. Divide by the total number of appointments. Set a goal (e.g., 30%) and see if you are meeting the goal.
- **% Open capacity:** Count the number of open slots divided by the total number of appointment slots. Note that % open capacity differs based on time frame (e.g., one week, two weeks or four weeks).
- **Third next available appointment (TNAA):** # of days until 3rd open appointment. A reasonable TNAA goal is less than 7 days for a teaching clinic with clinicians who see patients part-time.
- **Patient report:** Some clinics employ periodic waiting room surveys. Clinics can also obtain patient reports on access through common national surveys such as CG-CAHPS, which includes questions like:
 - *“In the last six months, when you contacted this provider’s office to get an appointment for care you needed right away, how often did you get an appointment as soon as you needed?”*
 - *“In the last six months, when you made an appointment for a check-up or routine care with this provider, how often did you get an appointment as soon as you needed?”*

Will my access consistently improve once I start focusing on improving it?

Fluctuations in access are normal as supply and demand varies, for example, due to seasonal or holiday influences or changes in numbers of clinicians available. Improvements may be difficult to sustain. (See example access trend chart, below). Don't get discouraged.

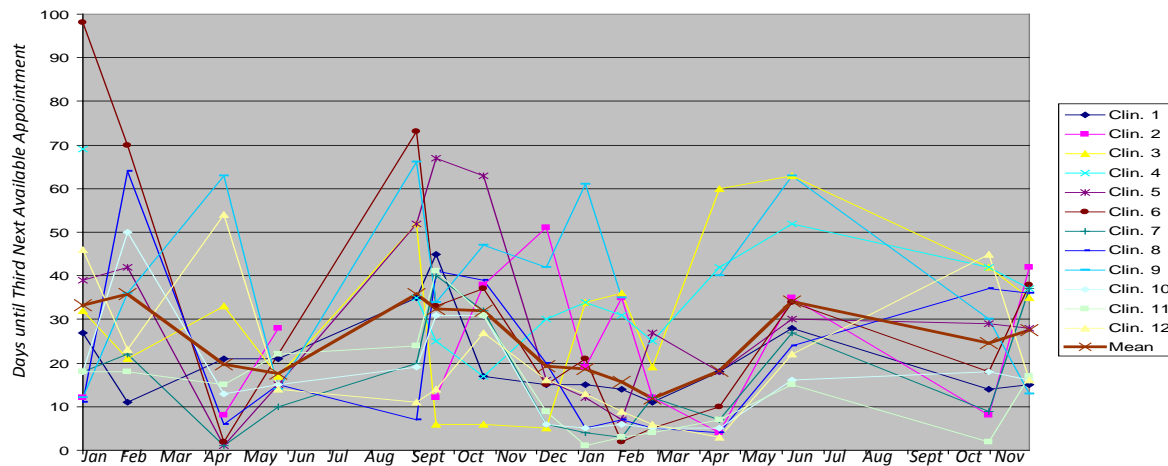


Figure 2: Example access trend lines for multiple clinics

2. Reduce demand. Right-size panels, decrease unnecessary visits, and leverage patient portals.

Contributors to demand:

- Panel size
- Return Intervals
- Patient population needs (chronic and complex vs. acute and preventive care)
- Lab result availability
- Seasonal variation

How does panel size impact access?

Access and empanelment (the number of patients assigned to each clinician) are close cousins. Difficulty making appointments can often signal over-empanelment—that is, the clinician has too many patients given his or her time available for patient visits.

Over-empanelment can be corrected over time by closing clinician panels to new patients and encouraging patients with less established relationships to be seen by new residents or clinicians with greater access.

How can I decrease unnecessary visits?

Strategies to reduce unnecessary visits include: lengthen return intervals (have patients return less often unless they truly need to come in), provide refills for 13 months for chronic medications, review the schedule in advance to ensure that lab results are in and postpone follow-up appointments if lab is not available. For example, medical assistants may review the schedule one week in advance to identify patients with incomplete lab work, and front desk staff may ask patients to postpone the appointment or get the lab results by patient portal.

Can I anticipate surges in demand including seasonal variation?

Some surges you cannot anticipate. Others are seasonal. For example, physical exams for back-to-school season and flu season in the winter. Data from prior years can be used to predict future demand, and special clinic times may be planned to service this need.

How can patient portals and non-in-person visits improve access?

Alternative visit types can reduce demand, including patient portal messages and telephone visits.

The top five reasons for patients to communicate with their clinician via the electronic portal are to discuss: 1) a change in a health condition, 2) lab results, 3) a new condition, 4) drug dosages, and 5) a new drug (Zhou et al 2010). Some of these strategies are efficiently managed without an in-person visit, but it does require time to complete non-in-person visits and some communications actually generate an in-person visit.

When patient portal messages can substitute for in-person visits, more appointment slots become available for patients with more complex care needs. In a study of Kaiser Permanente's Northwest Region after portal implementation, primary care visits decreased 6.7% among portal users compared to a matched non-user control group (Zhou et al 2007). However, findings are mixed, with another study finding no significant difference in face-to-face visit frequency after portal implementation (North et al 2014).

3. Increase Capacity (Supply). Add visits, reduce no-shows with reminder calls and pre-visit chart reviews, and leverage team members.

Contributors to capacity:

- Clinician FTE
- # days clinician is in clinic
- # appointments per clinic session
- Flexible appointment types
- Team members able to address patient needs (e.g., RN visits, behavioral health)

What should I consider to add visits?

More visits could mean more visits per day or more days per year. Increasing the number of visits scheduled per day is generally not a favorable strategy unless you can create advanced teams (see University of Colorado case highlight).

The most straightforward strategy to increase supply is to **hire additional faculty or advanced practice clinician support**. However, many health systems have challenges recruiting primary care clinicians.

Systems can also **ask current faculty to increase their clinical time**. However, faculty burnout is also a reality. Clinicians experiencing burnout may reduce their clinical time (Shanafelt et al. 2016).

Resident schedules can be redesigned to include more continuity clinic sessions. This may involve negotiations with other clinical services and rotations.

What can I do to reduce no shows?

No shows reduce capacity, and that capacity is gone forever.

Reminder calls: Many clinics make reminder calls and texts, which are of some help. A Cochrane systematic review reports moderate quality evidence that phone calls or text message reminders both significantly improve appointment attendance compared to no reminders (Gurgol-Urganci et al. 2013). The review found similar effectiveness for both reminder types, however a clinic's particular population may influence which approach to use.

Reduce time until appointment is scheduled: No show rate is proportional to the number of days between the date an appointment is booked and the appointment date. Wait times of 2 weeks are associated with twice the no-show rate compared to wait times of 5 days (Ryu and Lee, 2017).

One way that practices mitigate the pattern of higher no show rates is to open appointment templates only 2-3 weeks in advance rather than scheduling appointments 3 months or more in advance. When a patient needs an appointment farther out, the front desk has a reminder system to call the patient back closer to the desired appointment time.

Restricting the time that appointment templates are open shortens the time to third next available appointment. It helps younger, healthier patients who want same day care but may hurt sicker patients with chronic conditions who would prefer to book longitudinal check-ins well in advance.

What are strategies to fill unused spots?

- Make all appointments equal length in order to flexibly accommodate different services. For example, if slots are reserved for only PAP smears, they cannot be used for other services and may be wasted.
- Require patients who have no-showed three times to receive care only on a drop-in basis. This prevents patients with a history of no-shows from booking a time which could be used by a patient more likely to attend; however this policy has the drawback of potentially increasing disparities.
- Allow more than one patient to be scheduled for a time slot if it is likely that a patient will not attend the appointment. While overbooking increases the likelihood an appointment slot will be used, it also causes stress and long wait times if both patients arrive expecting to be seen at the same time.

CASE HIGHLIGHT: How did they implement open access scheduling to reduce no shows and TNAA at University of Arizona Family Medicine Residency Program in Phoenix?

In 2003, the University of Arizona Family Medicine Residency Program in Phoenix initiated open access scheduling, meaning all physicians' slots were opened when the day began. Patients could not make appointments in advance. TNAA was zero and no-show rate was about 5%.

Some patients loved open access; others wanted to make appointments in advance. More recently, the clinic began to open appointment slots one week in advance. TNAA was no more than 7 days and no-show rate continued under 10%. When patients needed a follow-up appointment, the front desk made a reminder call to the patient one week before that date.

How can other team members help increase capacity?

Team members can help increase capacity in various ways, for example:

- 1) Medical assistant support for clinicians can allow more patients to be seen per session (see University of Colorado case highlight) or
- 2) RNs and pharmacists can independently care for many patients -- for example most patients with diabetes or hypertension -- with excellent quality (Bodenheimer and Smith, 2013). These visits, which do not involve physicians or advanced practice clinicians, allow access to improve by adding capacity. Often these visits are performed under protocol agreements or standing orders. Examples of standing orders are available at <https://cepc.ucsf.edu/standing-orders>.

CASE HIGHLIGHT: How did University of Colorado Family Medicine Residency at A.F. Williams Family Medicine Center use team members to increase capacity?

The A.F. Williams Family Medicine center has 2.5 medical assistants (MAs) per clinician. The MAs join the visit, take the patient history, close chronic and preventive care gaps, and perform all the documentation on the EMR.

Because MAs take on documentation work and other responsibilities, clinicians are able to see more patients per day, increasing capacity while reducing burnout. The additional visits pay for the increased MA support staffing. Access for new and established patients at A.F. Williams Family Medicine Center improved markedly after instituting this advanced team-based care model. *See Lyon et al. 2018 in Family Practice Management for more details.*

4. Reconfigure appointment scheduling if demand continues to exceed supply. Reserve capacity for same and next-day appointments.

One component of access is patients' ability to get timely appointments for urgent issues. Many practices address this challenge by setting aside appointments, which ideally allows people with urgent issues to access care the same or next day. Most practices triage requests for appointments to prioritize people with urgent problems (Candon et al. 2018)

What are advantages and disadvantages of freezing appointment slots?

To improve access for same or next-day appointments across all clinicians, appointments can be "frozen," meaning that slots are not available in advance for a patient appointment until "thawed." Clinics may need to experiment with how many slots should be frozen and when slots should be thawed. For example, schedule 50% of slots in advance, 25% frozen until one week in advance, and the remaining 25% frozen until the day before.

The advantage of freezing and thawing appointment slots is that urgent, same-day requests for appointments can usually be accommodated. A disadvantage is that patients with non-urgent needs may have to wait longer for available appointments because of the frozen slots. This method reconfigures capacity but does not add capacity (Murray 2000).

CASE HIGHLIGHT: How did they monitor and improve access by freezing appointment slots at Oregon Health and Science University Family Medicine Residency at Gabriel Park?

The leadership team reviews TNAA metrics weekly. The clinic generally fills 50% of appointment slots in advance; 30% are opened 7 days prior to the appointment and 20% are opened the morning of the appointment.

The clinic's goal is TNAA under 7 days for new and established patients. The clinic also aims to start the day with 30 slots open. At the time of CEPC's site visit in 2017, TNAA had gone up and the clinic planned to add three faculty physicians to improve access.

Ideally, In order to optimize continuity of care, appointments would be given only to patients empaneled to that clinician. However, if the clinician has open slots when the day starts, any patient can access slots on that day (Center for Excellence in Primary Care, 2018)

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What are advantages and disadvantages of a “clinician of the day”?

A “clinician of the day” is a designated clinician who does not have scheduled patients for a given day and sees patients requesting same- or next-day appointments. The clinic may need to experiment with how many slots are needed to satisfy same- and next-day demand, and also may need to establish a policy for walk-ins if no slots are open. A “clinician of the day” system allows patients to get a same-day appointment, however continuity of care will decrease.

Appendix 1: Example Calculations to Measure Access

- **% Same-day appointments:** *What % of appointments in the example clinic schedule below were same-day (or next-day) appointments?*

Hour	Appointment scheduled
1:00	PM huddle
1:20	Today
1:40	2 weeks ago
2:00	2 weeks ago
2:20	1 month ago
2:40	Today
3:00	Yesterday

Answer: 50% of appointments are same-day/next-day appointments (3 out of 6)

- **% Open capacity:** *What is the 2-week % future open capacity? What is the 4-week % future open capacity?*

Week	This week	Next week	In 3 weeks	In 4 weeks
# Open	2	10	25	45
Total # Appt. Avail.	50	50	50	50

Answer: 2-week % future open capacity = $12 / 100 = 12\%$

4-week % future open capacity = $82 / 200 = 41\%$

- **Third next available appointment (TNAA):** *When is the third next available appointment?*

Day of week	Mon	Tues	Wed	Thur	Fri	Sat	Sun	Mon	Tues
Scheduled appointments	X	X	X	X	X	X	X	X	
		X	X	X	X	X	X	X	
	X	X	X	X	X	X	X	X	
	X	X	X	X	X	X	X		
3 rd next avail measure	0	1	2	3	4	5	6	7	8

Answer: TNAA is the second Tuesday (8 days)

(1st available is the first Monday; second available is the second Monday, but these rare openings do not signify good access, which is why we use the third available). If you have a few slots opened up only the day before, do not count those in your TNAA because those few slots do not give a good estimate of your overall access.

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