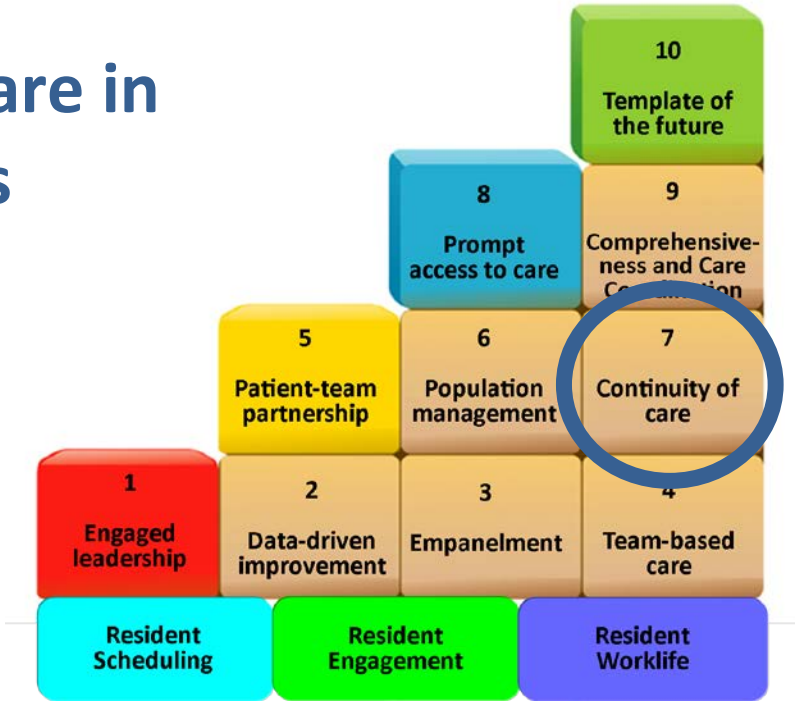
UCSF Department of Family & Community Medicine
Center for Excellence in Primary Care

Transforming Teaching Practices

## Toolkit for

# Continuity of Care in Teaching Clinics




There is strong evidence that clinician-patient continuity promotes the quadruple aim of patient experience, population health, reduced costs, and clinician and staff satisfaction. Continuous, healing relationships are the basis of primary care. Yet patients in teaching clinics often experience poor continuity due to sporadic clinician schedules and continuous cycles of new and graduating residents.

This toolkit outlines some strategies to improve clinician-patient continuity in teaching clinics.

# In this Toolkit

## Strategies for improving continuity



## How did they do it? (Case highlights)



## Appendices/ Tools

## Strategies for Improving Continuity

### 1. Track it. Regularly measure continuity to identify opportunities to improve

Continuity is associated with 1) improved preventive and chronic care, 2) higher patient and clinician satisfaction, and 3) lower costs (Saultz & Lochner, 2005). Continuity must be closely measured and optimized to attain the dual mission of quality resident education and patient care.

#### How do I measure continuity?

Measuring continuity requires that all patients are empaneled to a primary care clinician (faculty resident, nurse practitioner or physician assistant) so that it is clear which clinicians are responsible for which patients. Accurate empanelment is a critical foundation for measuring continuity.

Three approaches can be valuable to measure continuity: patient-centered continuity, clinician-centered continuity, and patient-centered continuity with a clinician pair. *Example continuity calculations are shown in appendix 1 (page 10).*

- **Patient-centered continuity:** Percentage of patient visits that take place with the patient's assigned clinician.
- **Clinician-centered continuity:** Percentage of a clinician's visits that are with the patients empaneled to that clinician.
- **Patient-centered continuity with a clinician pair:** Percentage of patient visits that take place with either the patient's assigned clinician or with one other clinician on the same team. This continuity metric recognizes that residents need to spend training time outside the clinic and patients need continuity-based care. (See side note about team continuity)

***A note about team continuity***

Many teaching clinics measure patient-centered continuity with a team. If teams are large (more than three clinicians), this is not a patient-centered metric. Patients might never experience continuity with a clinician they know and trust even if they saw an "on team" clinician every visit.

Patient-centered continuity with a small team—such as a clinician pair—is a more meaningful continuity metric for both patients and teaching clinics.

## Which continuity measure should I use?

Teaching clinics should measure both patient-centered and clinician-centered continuity.

The key is to calculate your continuity metrics consistently and regularly, drill down to the clinician level, and ensure everyone in the clinic sees and discusses the data.

Continuity measures have tradeoffs. For example, during rotations with more clinic time, residents have greater availability to their patients, which increases patient centered continuity. They are also more available to see other residents' patients, which decreases clinician-centered continuity (Walker et al, 2018).

***Example of continuity measure tradeoffs***

↑ **Resident time in clinic** = ↑ **Patient-Centered Continuity** ↓ **Provider-Centered Continuity**

If unable to track more than one continuity measure, consider whether patient experience or clinician experience is a greater priority, and select your metric accordingly.

## What if I can't obtain data from my electronic health record (EHR) to calculate continuity?

First, your IT experts need to be your best friends. Perhaps they can help. If not, it is ok to use spot checks.

- **Spot check patient-centered continuity** by reviewing the appointment records for about 10 patients scheduled today. For each patient, how many of his or her appointments in the past year took place with his or her assigned clinician?
- **Spot check clinician-centered continuity** by reviewing the list of patients scheduled for each clinician today. For each clinician, what percent of the appointments are for patients assigned to that clinician?

## What is a "good" continuity level?

According to teaching clinic visits made by the Center for Excellence in Primary Care, the highest patient-centered and clinician-centered continuity rates were 70% and above. However, our visits were not conducted to reflect a representative sample of teaching clinics and 70% is not an official national benchmark. Among published estimates from teaching clinics, median patient-centered continuity is 56% (range 43-75%) and median provider centered continuity is 55% (range 37-63%) (Walker et al, 2018).

## 2. Promote it. Build a culture of continuity among residents, faculty, clinical staff, schedulers, and patients.

Strong clinic continuity takes diligence and attention on the part of all clinic members including leaders, clinicians, clinical staff, front office staff, schedulers, and patients.

### How does leadership promote continuity?

- **Leadership either makes continuity a priority or doesn't.** Making it a priority means measuring it for each clinician each month, having the data transparent for all to see, putting the data up on clinic walls, and discussing it at clinician, staff and team meetings. Leadership can also promote consistent, predictable resident schedules known far in advance, establish a vacation or conference request policy that limits last minute changes, and train front desk staff on scripts to promote continuity

### How do our clinicians play a role in continuity?

- **Faculty** can promote continuity by developing a small, core group who spend substantive time in clinic. The more time a clinician spends in clinic, the higher the patient-centered continuity. Some clinics structure faculty roles so that a core subgroup of clinic faculty spends more than 50% of their time providing clinical care or precepting in the clinic. This dedication means that faculty are more available for their own patients and also models the value of continuity for new residents. If the faculty is large and very part-time, consider requiring each member to see patients at least 2 half-day sessions per week. Faculty can also promote continuity by discussing continuity metrics for each faculty member at team meetings and by reinforcing the value of continuity in discussions with residents.

- **Residents** can achieve greater continuity by promoting the value of a personal physician when meeting new patients and guiding patients to make return appointments with them rather than another clinician. This may involve educating patients about the resident's expected availability and clinic scheduling processes. Some residents actively scan appointment schedules for their own patients who may have been accidentally assigned to other clinicians on the same day. Residents can also limit last-minute vacation requests that require rescheduling clinic sessions . Finally, residents can participate in QI initiatives to improve continuity.

- **Advanced practice clinicians** (nurse practitioners or physicians assistants) can play a role as a continuity anchor (See section 4).

### How do our clinical staff members play a role in continuity?

- Clinical staff members often have a special opportunity to get to know patients longitudinally, even as resident physicians graduate. RNs and/or medical assistants can be the glue holding teams together and providing continuity for patients.

- When patients stay with the same team in a teaching clinic, they often identify with obtaining care from a particular staff member rather than a particular physician.

- If each medical assistant always works with the same small group of clinicians, patients on those clinicians' panels will get to know and trust their medical assistant.

### How do our front office staff and schedulers play a role in continuity?

- **Build patient scheduling algorithms and train front desk staff on scripts that guide how patients should be scheduled to maximize continuity.** For example, use continuity-centric messaging such as: *"Your doctor's next opening is Friday; should I make that appointment for you?"* before offering sooner appointments with other providers. Many patients will accept that appointment. If a patient's empaneled clinician is unavailable or a patient need to be seen earlier, the second best option is to suggest to the patient an appointment with the continuity anchor (if there is one) on the team. The third best option is another clinician on the patient's team.

> ***From the literature…***
> Training clinic schedulers to preferentially schedule to the empaneled resident improved patient-centered continuity from 53 to 77 percent in one pediatric residency.
>
> (Chaundhry, 2015)

### How do our patients play a role in continuity?

- **Emphasize the value of continuity during each patient encounter**. In one clinic, residents ask patients to help with trying to see one clinician regularly. In addition, business cards, prominent team names, waiting room photos, and other educational approaches can help patients identify with their clinician and clinician team so that patients request their clinician when making appointments.

**CASE HIGHLIGHT: How did they build a culture of continuity at University of North Carolina?**

The University of North Carolina (UNC) Family Medicine Center has invested significant time and energy into both patient-clinician continuity and access. The Family Medicine Center has 64 primary care physicians, including 11 residents per class. The clinic has 17,000 empaneled patients with a visit in the past 18 months. Patient-centered continuity ranges from 50% to 90% per clinician as of early 2017. Mean continuity was 71% clinic-wide and 69% for residents.

In 2006, UNC changed all resident rotations to prioritize clinic continuity and access. UNC's motto was, "Continuity is King." Continuity metrics for each clinician and team are reported monthly. These metrics are reviewed and discussed for clinicians with low continuity rates to look for improvement strategies. To improve access, each clinician has some appointment slots that are held until a few days before the appointment. Front office staff can offer those appointments *only to the patients of that clinician*. Only on the day of the appointment does the slot open up to patients of other clinicians. The clinic adjusts the timing at which appointment slots open up depending on a clinician's continuity and access needs. The front office staff is well trained in the continuity policy. UNC also requires faculty to see patients at least 2 sessions per week in addition to precepting. UNC's trend toward more faculty clinic time greatly facilitates continuity and access.

## 3. Negotiate clinic-supportive resident scheduling. Schedule residents well in advance to be in clinic predictably and frequently

Resident schedules strongly influence the clinic's ability to facilitate continuity. *See appendix 2 (page 11) for examples of scheduling processes that impede vs. promote continuity.*

### What scheduling strategies promote continuity?

- **Schedule resident clinic sessions predictably.** One way to do this is to arrange for residents to see patients during the same half-day session throughout their residency (e.g., every Tuesday and Thursday PM). Another option is to schedule each resident for a substantial number of clinic sessions every two weeks. When residents' clinic sessions are predictably scheduled, patients learn when their resident is in clinic and are more likely to make appointments accordingly.

- **Increase resident time in clinic.** The number of half days in clinic varies widely from clinic to clinic, though all family medicine residents have the same requirement to complete 1650 ambulatory clinic visits. Among 20 Transforming Teaching Practices clinics visited in 2017, the reported number of half days that residents spend in clinic across three years of training ranged from 250-550 half-days. The more time that residents spend in clinic, the more availability they have to see their own patients.

- **Schedule residents' clinic sessions far in advance.** Finalize resident schedules 12 weeks or more in advance so that clinics can open appointment slots to book patients. Some teaching clinics set resident schedules for an entire year.

- **Reduce the duration between ambulatory blocks.** Shorten resident time away from clinic so that residents are seldom absent from clinic more than two weeks. This promotes residents' regular presence in clinic, making it easier for patients to schedule timely visits with their physician.

**CASE HIGHLIGHT: How did they implement a clinic-supportive 2+2 scheduling model at the University of Oklahoma, Tulsa?**

As in many residency programs, University of Oklahoma Tulsa Family Medicine residents experienced a chaotic clinic environment with poor patient continuity and resident accountability. In response, in 2016, the program implemented "2+2 mini blocks" beginning with its first year residents. Each month, residents spend two weeks entirely devoted to a non-ambulatory rotation experience alternating with two weeks entirely devoted to the clinic (see table example). During the weeks when the resident is not in clinic, other residents, faculty, nurses, and medical assistants address patient needs for that resident. Within the ambulatory mini-block, residents spend seven half-day sessions in their clinic.

**CASE HIGHLIGHT: University of Oklahoma, Tulsa (Continued)**

The mini block scheduling significantly improved residents' ability to focus in the clinic without interruption, to assume ownership of their patients' care, and to enjoy an overall learning environment according to baseline and year 1 assessments. Patient-centered continuity improved from 27% (June 2016) to 50% (December 2016). Clinician- centered continuity decreased during that period from 68% to 59%, which is attributable to residents having more time to see patients overall, not only their own.

*Table: Example 2+2 "mini-block" rotation assignment*

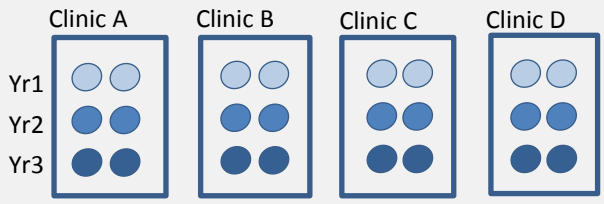
| *Month* | *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* | *9* | *10* | *11* | *12* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Wk 1-2 | Peds | Peds | Peds | Surg | IP | IP | IP | EM | OB | OB | OB-PNC | NBN |
| Wk 3-4 | AMB | AMB | AMB | AMB | AMB | AMB | AMB | AMB | AMB | AMB | AMB | AMB |

### What does it mean to "resident proof" a clinic? How do "resident-proofed" clinics promote continuity?

A "resident-proofed" clinic does not rely on resident schedules to provide continuity of care. One way to do this is to distribute residents among multiple primary care clinic sites.

For example, the figure (right) depicts an 8-8-8 residency program across four sites—i.e., 8 residents per year with 24 residents total, but only 6 residents would train at each clinic (2 from each level of training). 70 to 80% of patients are empaneled to faculty or advanced practice clinicians who are full-time or nearly full-time in clinic.

***Figure: Residents distributed across sites***




Continuity in resident-proofed clinics is especially strong when combined with a continuity anchor that can co-manage patients with residents when the resident is not available in clinic (see strategy 4).

A "resident-proofed" clinic supports better patient care by increasing continuity. It also supports resident learning via preceptors who have fewer learners at one time and a higher functioning clinic experience.

## 4. Establish an anchor. Provide consistent alternate clinician coverage that can facilitate continuity when residents are unavailable.

A continuity anchor is a full-time or almost full-time clinician—often a nurse practitioner or physician assistant—who co-manages a panel of patients with several residents and/or faculty physicians. The continuity anchor has no panel or a relatively small panel. The majority of the continuity anchor's appointment slots are available to see patients for residents or faculty on their team who are not available (for example, when a resident is on an inpatient rotation). The continuity anchor (nurse practitioner/physician assistant) keeps the empaneled resident informed on their visits, test results, and communications, and also communicates with the resident about patients they are co-managing when the resident is in clinic. The front desk staff needs to follow policies to schedule patients with the continuity anchor on the patient's team if the patient's resident is not available.

### What are the advantages of a continuity anchor model?

A full-time continuity anchor on each team helps to "resident-proof" the clinic—that is, the clinic does not depend on resident schedules to provide continuity of care. This model maximizes the 2-person continuity metric, as patients almost always see either their primary physician or the continuity anchor.

### What are the disadvantages of a continuity anchor model?

Although this model is often the most successful in maximizing patient perception of continuity with a small team, continuity anchor visits may be heavily acute care. Some advanced practice clinicians prefer to have their own panels and develop longitudinal relationships with patients.

**CASE HIGHLIGHT: How does UMMS-Baystate utilize advanced practice clinicians as continuity anchors?**

At the *Baystate High Street Health Center Adult Medicine Clinic* there are 10 stable teams, grouped into 5 team pairs. Each team has 8-10 people including 5-6 residents, a faculty member, and an advanced practice clinician (APC). The clinic's five APCs each support a team pair. APCs are nurse practitioners and physician assistants who may have a small panel of their own patients; however, their main role is to see patients of residents when residents are not present in the clinic. Team continuity was 64% in 2008 when Baystate started its redesign with three APCs. In 2015, team continuity had increased to 71% using the current model of five APCs. Baystate measures team continuity as the percent of patient visits with any clinician on the team, though continuity is almost always with one of two clinicians since the clinic's scheduling algorithm prioritizes appointments with either the patient's empaneled physician or the full-time APC on the team.

# Appendix 1: Continuity Calculations

### Patient-centered continuity

**Percentage of visits that take place with the patient's assigned clinician.**

Example: A panel of 1000 patients makes a total of 3000 visits in one year.
2000 of these visits are with the patient's assigned clinician

Patient-centered continuity = 2000/3000 = 67%

### Clinician-centered continuity

**Percentage of visits that a clinician (resident, faculty, or nurse practitioner/ physician assistant who cares for a panel of patients) sees his/her assigned patient.**

Example: A resident has 100 patient visits in a month.
50 of these visits are patients on the resident's panel
50 of the visits are patients of other residents.

Clinician-centered continuity = 50/100 = 50%

### Patient-centered continuity with a clinician pair

**Percentage of patient visits that take place with either the patient's assigned clinician OR another clinician on the same team.**

NOTE: Patient-centered continuity metrics with teams are only meaningful if the team is very small (2-3 clinicians). See further rationale on page 3.

Example: A panel of 1000 patients makes 3000 visits per year
1000 of these visits are with the patient's resident PCP
1400 of these visits are to the NP on the resident's team

2-person team continuity is 2400/3000 = 80%

### Summarizing your continuity measure

After calculating your chosen continuity metric for each clinician, average the results across all clinicians for a clinic-wide measure. It can also be informative to note averages by clinician type (e.g.- intern vs. R2 or R3 vs. faculty) and which clinicians have the least and greatest continuity.

## Appendix 2: Resident Scheduling Process Comparisons

To maximize continuity, resident schedules should be made available far in advance; place residents in clinic predictably; increase number of half-days in clinic; and reduce the duration when the resident is not in clinic.

**Example A**: Resident A is in clinic 15% of total time during the 3-year residency. Resident A is sometimes in clinic 0 half-day sessions per week and sometimes 2 sessions. The half-day sessions may be Monday PM, Tues AM, Thursday PM, etc. on different weeks. The resident may be on in-patient rotations with no clinic time for 2 months during some of the residency. The residency program only schedules the resident in the clinic one month in advance of patient appointments.

Continuity of care will be very low because 1) the resident is seldom in clinic, 2) may be away from the clinic for long stretches of time, and 3) is in clinic on different half-day sessions so that the resident's patients never know when the resident will be there. Moreover, 4) the patient doesn't know when the resident will be in clinic until a month before the patient needs a visit, meaning that follow-up appointments more than a month away cannot be scheduled.

**Example B**: Resident B is in clinic 30% of total time during the 3-year residency. Resident B is in clinic 2 – 3 half-day sessions every single week of residency with the rare exceptions of vacations and ICU rotations; the 2-3 half days sessions are on Tuesday afternoon and Thursday afternoon, and sometimes Wednesday morning, throughout the 3-year residency. Resident B's schedule is available for the clinic to make patient appointments for an entire year. Resident B is 1) often in clinic, 2) is rarely away from clinic more than a week, 3) is in the clinic the same sessions throughout the residency so that patients know when she is there, and 4) appointment schedules can be opened well in advance.

The example B model can be challenging for residency programs to implement, yet significantly increases continuity of care for Resident B's patients compared to Resident A's patients. It also makes Resident B feel full responsibility for her panel of patients.

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