The California Primary Care Association (CPCA) and the California Safety Net Institute (SNI) are co-hosting the CIN quarterly partner meeting focused on improving patient access and operational efficiency. The purpose of this document is to provide context for the discussion on May 11 at CHCF and summarize some of the key concepts used in this work.

CPCA and SNI both launched their initiatives in response to challenges observed in their member clinics, specifically, long waits for new patient appointments, limited follow-up appointment availability, lack of continuity of care, poor clinic workflow, and low or highly variable provider productivity. For CPCA, many of its member clinics were receiving complaints on patient satisfaction surveys related to these issues. In response, both organizations launched initiatives with willing member clinics to make these fundamental redesign changes.

CPCA, through support from the federal Bureau of Primary Health Care (BPHC), launched the Optimizing Primary Care Collaborative in April 2007 with 26 clinics and subsequently included an additional 16 clinics in 2008-2009. The Collaborative was facilitated by Mark Murray and Associates and had a goal of increasing access, office efficiency, and clinical outcomes, with a primary focus on optimizing patient flow. Key approaches included:

- Better appointment management (e.g., fewer types, appropriate intervals)
- Better use of appointment time (incl. using phone and email visits)
- Optimizing the care team
- Doing “today’s work today” and rebalancing capacity with demand

SNI also has considerable experience in this area, working with 48 clinics to implement Patient Visit Resign (PVR) from 2005 to 2008 through support from CHCF. PVR, an approach developed by Coleman Associates, is a patient-focused methodology designed to dramatically reduce patient waiting. The process focuses on two primary measures to achieve these efficiencies: decreasing cycle time and increasing provider productivity. The approach focuses on four key structural changes:

- Affirmative scheduling (reminders, reducing no-shows)
- Medical visits organized around the patient (improving cycle time)
- Cross-functional teams (effective teamwork)
- Iterative/frequent data gathering and monitoring (rapid PDSAs)
A related, focused intervention, also developed by Coleman Associates, is Patient Centered Scheduling (PCS), an approach that SNI has implemented with a subset of the clinics that implemented PVR. The objective of PCS is to improve patient access with a goal of providing same-day appointments to those patients who want them. Progress toward this goal is measured through the metrics of no-show rate, third next available appointment, and capacity used. The nine steps of PCS are:

1. Avoid rebooking no-shows by reducing the no-show rate dramatically.
2. Implement Simplified Patient Scheduling (SPS) to create a modest number of same-day appointment slots.
3. Scrub the schedule to eliminate unnecessary appointment to open more future (“tomorrow’s”) appointment slots.
4. Unused capacity begins to rise as more open slots appear in the schedule, not all of which are used.
5. Exploit your new, unused capacity by moving future appointed patients into more current (“today’s”) appointment slots.
6. Patients calling in for appointment are accommodated today or tomorrow, taking advantage of today’s open slots.
7. Third Next Available Appointment drops naturally and organically
8. No-show reduction efforts can be dramatically scaled back since many patients are now same-day patients.
9. Same-day demand and capacity are in equilibrium, so you know what proportion of the daily schedule should be open slots.

The common thread across these methodologies is the use of the Plan-Do-Study-Act model of improvement and balancing demand and supply factors in the clinical setting. They also focused on impacting key measures, including: Third next available appointment, provider productivity, patient cycle time, and no-show rates.

These (and other) clinical redesign approaches have been and are being used by other CIN partners. We hope to share at the May 11 meeting:

- Models or approaches that have been (or are being) used
- Strategies used to spread the model (both successful and not so successful)
- Keys to sustaining improvement (what are we learning)

For those who are interested in further reading, the following additional materials are attached:

- Improving Patient Access to Care: Change Concepts, Specific Changes, and Examples of Common Solutions. (3 pages)
  Summary table of five high leverage concepts, specific changes and what measures they impact--adapted from Mark Murray and Associates by Hunter Gatewood.
- Optimizing Primary Care: Access and Efficiency Measures. (2 pages).
Summary table of measures used in the CPCA collaborative, including directions for data collection.

- AQICC-MU Data Collection Plan: Operational Efficiency Measures (6 pages) Definitions for efficiency measures and how to collect them (step-by-step), from CPCA.

Two CHCF evaluation reports are also available online:


- **Evaluation of the Optimizing Primary Care Collaborative: Lessons from the Field by the Field.** White Mountain Research Associates, LLC. (73 pages) *External evaluation of the CPCA learning collaboratives led by Mark Murray.*

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i Patientvisitresign.com

ii Towards a Better Patient Experience: Reengineering California’s Safety-Net Clinics

Improving Patient Access to Care: Change Concepts, Specific Changes, and Examples of Common Solutions

Five-Step Foundation
1. Set Access Aim; Consider the Gold Standard (see note below)
2. Measure Delay with Third-Next Available Appointment
3. Measure Demand, Supply, and Activity
4. Empanel Patients to a PCP
5. Measure Panel Size and Continuity with PCP

High-Leverage Changes (Make many changes simultaneously; it is not necessary to do these in order.)

<table>
<thead>
<tr>
<th>CHANGE CONCEPT</th>
<th>CHANGES TO MAKE; IMPORTANT MEASURES</th>
<th>EXAMPLES OF COMMON SOLUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Match Supply and Demand daily and weekly</td>
<td>5 Supply/Demand measures: Learn, Use, and Take Action with o Panel Size (per provider/provider-based team) o Delay (Days till Third-Next Available Appt) o Demand (Appts scheduled per day/wk) o Supply (Available Regular Return Appts) o Activity (Appts Completed in a day/week)</td>
<td>• Assign different staff, based on role and interest, to gather different measures. • Discuss measures regularly in improvement team or general staff meetings so everyone knows what they mean and why they matter.</td>
</tr>
</tbody>
</table>
| Reduce Appointment Backlog (Intense effort: Existing providers add more capacity) | • Each provider agrees to see 1 to 3 more patients each day she is in clinic.  
**MEASURE:** Third-Next Available Appointment | • When patients call in for appointments, they are offered these additional slots to avoid adding to the end of the line of appointments into the future. |
| Simplify Appointment Types and Times | • Eliminate visit types one by one, to make schedule easy for patients to get in, and for staff.  
• Separate registration and paperwork steps from the provider visit time.  
• For time-consuming visit types, separate registration and paperwork time from provider appointment time and duration (eliminating need for special appt type). | • As access improves, eliminate carve-outs for next-day access, or “urgent care.”  
• Eliminate different appointments for “new” patients, “women’s health,” etc.  
• Establish 1 “short” and 1 “long” appt type.  
• Do registration by phone the day before.  
• Give patients appointment times that reflect time needed to do paperwork prior to seeing provider. |

Adapted from Mark Murray and Associates, by Hunter Gatewood, San Francisco Health Plan, 2011
<table>
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</table>
| Contingency Planning     | • Plan for Supply Contingencies (provider vacations, medical leaves)  
• Plan for Demand Contingencies (flu season, pediatrician school sports physicals) | • Have a plan for sharing work between providers when someone is out. Who will do what for complex patients, who will cover urgent care needs of this panel?  
• Block a few days AFTER provider vacation, open these days while provider is out, to fill while she is gone.  
• Host drop-in hours for school sports physicals |
| Reduce Demand for Unnecessary Visits | • Extend Visit Intervals  
• Max-pack visits: Handle urgent and preventive care tasks in one visit  
• Comb schedules to eliminate non-necessary appointments  
• Handle lab results and other information by phone, or with non-provider visits | • Extend visit intervals based on clinical guidelines.  
• Do phone visits/check-ins with patients to save their time and your schedule.  
• Do lab result notifications by phone.  
• If you have care teams, schedule patients with non-provider care team members.  
• Use group visits, including all-in-one chronic illness visits, drop-in group medical appts. |
| Optimize the Care Team   | • Spread work across team members  
• Break a delay-causing visit step down into actions  
  o divide them up across all clinic staff  
  o test different solutions and steps  
• Standardize all appointment work  
• Standardize all non-appointment work | • Establish a set process for handling patient forms, patient phone calls, refills, and other regular tasks, include the “who” for each step.  
• List all activities for one appointment, and decide as a team who is ideal person to handle this task; change tasks around to support the ideal person doing each thing. |
| Assign and Manage Patient Panels | • Each patient is assigned to a specific provider.  
• Each provider-based team sees own patients  
• Monitor panel capacity monthly, by provider (use demand numbers).  
• Assign staff to partner with providers in regular | • Use four-cut method to assign all patients.  
• Use supply numbers in the schedule template to establish panel capacity.  
• Analyze panel sizes monthly for each provider, to know who needs more/less. |
<table>
<thead>
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</tr>
</thead>
<tbody>
<tr>
<td>Manage (Maximize) Supply</td>
<td>• Schedule providers to fit what patients need.</td>
<td>• For patients who don’t need frequent return visits, or who fail to show, develop panel</td>
</tr>
<tr>
<td></td>
<td>• Don’t park patients in the schedule just to keep tabs on them.</td>
<td>management tasks to keep track of them without parking them in the schedule.</td>
</tr>
<tr>
<td></td>
<td>• Don’t give far-future appointments to people who won’t or can’t keep them.</td>
<td>• Deploy provider supply to match demand patterns daily and weekly.</td>
</tr>
<tr>
<td></td>
<td><strong>MEASURES:</strong> Supply, Activity, No-Show Rate</td>
<td>• Do confirmation and troubleshooting calls with patients prior to visit. Help them attend.</td>
</tr>
<tr>
<td>Look Before You Book:</td>
<td>• Prebook appointments in a way that preserves same-day access once you get there.</td>
<td>• Schedule future appointments in the morning, to allow travel time for same-day visits in</td>
</tr>
<tr>
<td>Smart Scheduling</td>
<td>• Use data to see what your demand trends are, by day and by week.</td>
<td>late morning or afternoon.</td>
</tr>
<tr>
<td></td>
<td><strong>MEASURES:</strong> Daily Demand, Weekly Demand</td>
<td>• Unless the patient needs a certain day, schedule future appointments as much as possible</td>
</tr>
<tr>
<td></td>
<td></td>
<td>on your practice’s least-busy days.</td>
</tr>
</tbody>
</table>

**A note about the Gold Standard Access Aim:**
The benefits of ideal access can’t be realized with simply a better-than-before delay, e.g. if we go from 20 days to 5 days. To end the days of triage, front-desk negotiations for overbooks, and saying “no, sorry, not today, and no, not tomorrow either” and other chaos we put patients and ourselves through, a practice must work hard to achieve and stay as close as possible to a 0-day delay.

Here are two examples of ways to phrase this Golden Aim:
1. “We will offer an appointment today to any of our patients for any reason, with his or her own primary provider or a team member.”
2. “We will offer an appointment today, or on the next day the provider is in, to any patients for any reason with her or her own provider.”
<table>
<thead>
<tr>
<th>Measure Name</th>
<th>What it Means</th>
<th>Why It’s Important</th>
<th>Who Calculates</th>
<th>When to Calculate</th>
<th>How to Calculate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Third Next Available Appointment</strong></td>
<td>The wait time for an appointment. This measures the wait time until there is “space” on the schedule.</td>
<td>This helps you to see how well and how close you’ve balanced supply and demand</td>
<td>Scheduler or office manager</td>
<td>Same time and day of the week each week (e.g., Wed. at 10 AM)</td>
<td>Select 1-2 appt. types (e.g., physical exam). Count the number of days from Wednesday until the 3rd next available appt.</td>
</tr>
<tr>
<td><strong>Future Open Appointments</strong></td>
<td>Percent of the total number of appointment slots that are open in a month.</td>
<td>A more sensitive indicator of access and potential space as you reduce your third-next available appointment</td>
<td>Scheduler or office manager</td>
<td>Calculate once the third next available is stable at a single day.</td>
<td>Count total number of slots in the month (A). Count how many of those are open (B). Divide open slots (B) by total slots (A). Record as a percentage.</td>
</tr>
<tr>
<td><strong>True Demand</strong></td>
<td>The number of patients who call today and get booked for any type of appointment either for today or for the future, plus walk-ins and other returns.</td>
<td>This tells us just how much work was generated each day.</td>
<td>Scheduler</td>
<td>Collect daily for each provider and for the practice as a whole.</td>
<td>Tally the total number of people that called for and received an appointment each day + walk-ins + deflections to urgent care, another provider, etc. Total of these is the external demand. Then add return visits or internal demand.</td>
</tr>
<tr>
<td><strong>Panel Size</strong></td>
<td>The number of unique patients assigned or linked to a provider, measured over 12-18 months.</td>
<td>This helps the practice anticipate demand and divides the workload</td>
<td>Office manager using the computer</td>
<td>Every month and look for changes</td>
<td>For most, panel size is the number of lives covered by all of the insurance plans the practice is contracted with and then drilled down to the individual. This works in a completely “enrolled” population.</td>
</tr>
<tr>
<td>Measure Name</td>
<td>What it Means</td>
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<td>Who Calculates</td>
<td>When to Calculate</td>
<td>How to Calculate</td>
</tr>
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<td>--------------------------------------------------</td>
<td>-------------------------------------------------------------------------------</td>
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<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Provider Full-Time Equivalents for Clinical Care</td>
<td>The measure of provider supply</td>
<td>This tells you how many providers you have to meet demand</td>
<td>Office manager</td>
<td>Once a month</td>
<td>Count daily, weekly, and monthly physician FTEs – compare to demand</td>
</tr>
<tr>
<td>Target Panel</td>
<td>The proportion of the practice that each provider would be accountable for if the work was shared in proportion</td>
<td>Helps us understand if providers do their “share”</td>
<td>Office manager</td>
<td>Monthly</td>
<td>Divide unique patients for the practice by the clinical FTE.</td>
</tr>
<tr>
<td>Appointment Supply</td>
<td>How many appointment slots each provider can offer each day and each week</td>
<td>This tells you how many patient visits can take place</td>
<td>Scheduler or Computer</td>
<td>Monthly or weekly until stable</td>
<td>Slots/hr x hrs/day = appts/day Appts/day x days/wk = appts/wk Appts/wk x weeks/yr = appts/yr</td>
</tr>
<tr>
<td>Productivity</td>
<td>The measure of provider productivity</td>
<td>This tells you how much work each provider did.</td>
<td>Computer or Billing System</td>
<td>Monthly</td>
<td>Calculation to be determined by each practice as part of the project – many choose RVUs Visits not valuable as a measure</td>
</tr>
<tr>
<td>Patient-Provider Match</td>
<td>The likelihood that patients will see their own provider when requesting care.</td>
<td>Better match rates = lower demand &amp; better outcomes</td>
<td>Scheduler or Computer</td>
<td>Monthly</td>
<td>Number of Provider X’s patients who saw Provider X divided by the total number of Provider X’s patients’ visits to the system</td>
</tr>
<tr>
<td>Failure to Keep Rate</td>
<td>The no-show rate</td>
<td>Failure to keep is wasted supply</td>
<td>Scheduler or Computer</td>
<td>Daily or Weekly</td>
<td>Number of no-shows divided by total number of appointments (either daily or weekly)</td>
</tr>
<tr>
<td>Cycle Time</td>
<td>How long are patients in your office from check-in to check out</td>
<td>This helps us ensure the practice is as efficient as possible.</td>
<td>The clerk in the registration and/or check-out areas can record each person’s name (or identifier) and time.</td>
<td>Pick the busiest time of day each day of one wk per mo. Measure 6 patients per provider per day.</td>
<td>Randomly select 30 patients per provider. Record check-in and check out times (in minutes) for each patient. If patient arrives early, time starts at scheduled time of appointment.</td>
</tr>
</tbody>
</table>
**Cycle Time (Core Measure)**

<table>
<thead>
<tr>
<th>Measure Type</th>
<th>Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purpose</strong></td>
<td>Provides information on clinic efficiency and the timing and flow the patient experiences during the primary care visit.</td>
</tr>
<tr>
<td><strong>Definition</strong></td>
<td>The amount of time (in minutes) a patient spends at a primary care visit from check-in to check-out. Cycle time does not include time spent in laboratories or radiology during primary care visits.</td>
</tr>
</tbody>
</table>

Sub-defintions:
1. *Primary care visit* = such as physicals, routine, return and sick visits; do not include specialty visits.
2. *Check-in* = the time the patient checks-in, or registers, for their office visit; include early arrivals.
3. *Check-out* = the time the patient checks-out (e.g. at the registration desk or wherever check-out was done)

**AQICC-MU Data Collection Plan for Cycle Time**

1. Identify one day every month your clinic will collect this data. Choose a day that is a regular day (e.g. Monday – Friday 8-5, no evening, Saturday, or specialty clinics) for your clinic. Collect this data on the same day every month (e.g. 2nd Tuesday of every month). You will be asked to collect and report this data for at least one month.

   > **Record recurring date here:** ____________________________

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1 Cycle Time is a “Core” measure for the AQICC-MU project. Core measures reveal information about your clinics’ efficiency and operations, or access to care. You will be asked to report on at least one of two core operational measures.
<table>
<thead>
<tr>
<th>AQICC-MU Data Collection Plan for Cycle Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Identify the shift for the recurring date you will collect cycle time data. Collect cycle time data on this same shift for each month (e.g. afternoon shift).</td>
</tr>
<tr>
<td>➢ <strong>Record recurring shift here:</strong> _______________________________</td>
</tr>
<tr>
<td>3. Collect the cycle time for every patient who checked-in for a primary care visit during your identified date/shift. There are a variety of ways you can do this, such as:</td>
</tr>
<tr>
<td>➢ Record on a sticky note, or on a pre-created cycle time form, the time the patient enters the office. At the end of the visit, the person checking out the patient records the time the patient leaves the office. Make sure to use synchronized clocks.</td>
</tr>
<tr>
<td>➢ Use a pre-created cycle time form that gets handed to every patient who comes in on the pre-selected date. Ask the patient to record the time as they move through each step of the visit.</td>
</tr>
<tr>
<td>➢ Use your EMR or PMS (if it provides this function).</td>
</tr>
<tr>
<td>4. Record your average patient cycle time for your identified date/shift.</td>
</tr>
<tr>
<td>➢ <strong>Average</strong> = Sum of each patients’ cycle time / total # patients sampled</td>
</tr>
<tr>
<td>5. We encourage you to share your results with your QI team and/or your clinic consortium. This will help you identify the change(s) you want to make to improve your ability to collect this data and/or your performance. Based on your results, you may decide to collect cycle time data on a more frequent basis.</td>
</tr>
<tr>
<td>6. Report your average patient cycle time (see #4) in the AQICC-MU Portal <a href="http://data.cpca.org/qi">http://data.cpca.org/qi</a>. You will be asked to report data for at least one month. Note that you will be able to adjust your process, watch for trends and see the progression of your clinic if you collect and report more than one month’s worth of data. The Portal will be set up so you can report monthly data if you choose.</td>
</tr>
</tbody>
</table>
## Time to Third Next Available Appointment (Core Measure)²

<table>
<thead>
<tr>
<th>Measure Type</th>
<th>Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose</td>
<td>Provides information on clinics’ patient access to care, and how long a patient waits for an available appointment.</td>
</tr>
<tr>
<td>Definition</td>
<td>For each provider, the length of time in days between the day a patient makes a request for an appointment with a provider and the third next available appointment for a primary care visit with that provider.</td>
</tr>
</tbody>
</table>

**Sub-definitions:**
1. *Primary care visit* = such as physicals, routine, return and sick visits; do not include specialty visits.

**Inclusions/exclusions:** count calendar days, including weekends and days off. Do not count any saved appointments for urgent visits since they are “blocked off” on the schedule.

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## AQICC-MU Data Collection Plan for Third Next Available Appointment

1. Identify one day every month your clinic will collect this data. Choose a day that is a regular day (e.g. Monday – Friday 8-5, no evening, Saturday, or specialty clinics) for your clinic. Collect this data on the same day every month (e.g. 2nd Tuesday of every month). You will be asked to collect and report this data for at least one month.

   ➢ **Record recurring date here:** ______________________________

² Time to Third Next Available Appointment is considered a “Core” measure for the AQICC-MU project. Core measures reveal information about your clinics’ efficiency and operations, or access to care. You will be asked to report on at least one of two core operational measures.
2. Identify whether your clinic will collect this data at the beginning or end of the day. Collect the data at the same time each month (e.g. end of day).
   - **Record recurring time here:** ____________________________

3. Collect third next available appointment data for every provider on your identified date. There are a variety of ways you can do this, such as:
   - For manual collection, look in the schedule book and count from the "index" (day when the "dummy" appointment is requested) to the day of the third available appointment for that provider.
   - Use your EMR or PMS if it provides this function.

4. Record your average time to third next available appointment for your identified date.
   - **Average** = Sum of each providers’ time to third next available appointment / total # of providers sampled

5. We encourage you to review and share your results with your QI team and/or your clinic consortium. This will help you identify the change(s) you want to make to improve your ability to collect this data and/or your performance. *Based on your results, you may decide to collect third next available appointment data on a more frequent basis.*

6. Report the average number of days to third next available appointment for the clinic (see # 4) in the AQICC-MU Portal [http://data.cpca.org/qi](http://data.cpca.org/qi). You will be asked to report data for at least one month. Note that you will be able to adjust and watch for trends and see the progression of your clinic if you collect and report more than one month’s worth of data. The Portal will be set up so you can report monthly data if you choose.
<table>
<thead>
<tr>
<th>Measure Type</th>
<th>Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose</td>
<td>Provides information on wasted supply – an unused appointment slot.</td>
</tr>
</tbody>
</table>
| Definition   | **Numerator:** the total number of appointments for which patients did not show  
|              | • **Inclusions:** include same day cancellations  
|              | **Denominator:** the total number of scheduled patients.  
|              | • **Exclusions:** exclude walk-ins |

### AQICC-MU Data Collection Plan for No-Show Rate

1. Identify one day every month your clinic will collect this data. Choose a day that is a regular day (e.g. Monday – Friday 8-5, no evening, Saturday, or specialty clinics) for your clinic. Collect the data on this same day every month (e.g. 2\textsuperscript{nd} Tuesday of every month). You will be asked to collect and report this data for at least one month.  
   - **Record recurring date here:** ________________________________

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3 Failure to Keep/No-Show is considered a “Menu” (i.e. optional) measure for the AQICC-MU project.
2. Collect this data for every provider on your identified date. There are a variety of ways you can do this, such as:
   - On each day, look at the number of scheduled patients and the number of patients that failed to keep their appointment. Divide the number no shows by the number of scheduled patients (kept appointments + no shows)
   - Use your EMR or PMS.

3. Record your average no-show rate for your identified date.
   - Average = Sum of each providers’ no-show rate / total # of providers sampled

4. We encourage you to share your results with your QI team and/or your clinic consortium. This will help you identify the change(s) you want to make to improve your ability to collect this data and/or your performance. Based on your results, you may decide to collect no-show data on a more frequent basis.

5. Report the average no-show rate for all providers for each identified date (see #3) in the AQICC-MU Portal [http://data.cpca.org/qi](http://data.cpca.org/qi). You will be asked to report data for at least one month. Note that you will be able to adjust and watch for trends and see the progression of your clinic if you collect and report more than one month’s worth of data. The Portal will be set up so you can report monthly data if you choose.