Hypertension, Diabetes, and Homeless/Non-homeless disparities
San Francisco Community Clinic Consortium
March, 2021

Dr. David Ofman, Michael Garcia, Matthew McGowen
WHAT WERE WE TRYING TO ACCOMPLISH?

**Problem Statement**

SFCCC hopes to achieve significant cardiovascular risk reduction among our targeted low-income, high-risk populations, utilizing a wide range of strategies and tools. We want each participating health center to work with their unique population to reach this common goal, sharing best practices and teaching relevant skills along the way.

**Aim Statement**

- Increase the % of hypertensive patients with controlled BP from 71.68% (Quarter 2, 2019) to 73.11% (relative 2% increase) by 3/31/2021.
- Increase the % of diabetic patients with A1c less than 9 from 75.56% (Quarter 2, 2019) to 77.07% (relative 2% increase) by 3/31/2021.

**Health Equity Aim Statement**

Decrease the difference (inequity) between non-homeless and homeless hypertensive BP control from 12.34% (Quarter 1, 2019) to no greater than 11.10% by 3/31/2021.
To begin, we worked with our PHASE coach at our monthly QIC meeting to guide QIC representatives through the process of designing and implementing a PDSA related to our PHASE aim. We created a shared driver diagram identifying possible issues and areas for intervention related to hypertension, and QIC representatives were assigned training modules from CCI on PDSAs. After the hypertension PDSAs were done, we spent some time on patient-family engagement, once again with supplemental aid from CCI. QIC also had broader discussions about the role of QI at their individual clinics and challenges impeding QI work related to patient populations and clinical operations.

After collaborating on hypertension drivers (see following slide,) the SFCCC Quality Improvement Committee reviewed process flow maps, clinics took the PDSA and PFE methods discussed at the meetings back to their clinics to implement on their own and reported their findings to the group. Sometimes, the results of the PDSA ran counter to expectations or challenged the group’s assumptions. For example, based on the hypertension driver exercise, one clinic decided to investigate whether second blood pressure readings were being taken consistently and correctly. However, when observing, second blood pressure readings were consistently taken correctly. Other times, hypotheses were confirmed, leading to more widespread adoption. One clinic wanted to test whether distributing self-monitored blood pressure devices would result in patients using their devices. They used a PDSA to distribute a small number and observed that not only did most patients use the devices repeatedly, but on average, patients performing home SMPB tests saw a slight reduction in their blood pressure.
**Our Theories for Change: How We Learned About Our Process**

**Aim Statement**

We will improve the health of our patients by decreasing the % of patients with uncontrolled hypertension from XX [# of patients] to XX [# of patients] by March 31, 2020

**Primary Drivers (Systems, structures, norms)**

- **Documentation/Information Systems**
  - SFCCC Hypertension Driver Diagram
    - **Aim Statement**
    - **Care Delivery/Team-Based Care**
      - **Secondary Drivers (Change Concepts)**
        - Ensure that HER documentation for BP is properly conducted and uniform across system
        - Ability to generate individual patient history/BP trends during patient visit
        - Generate data reports to identify patients with uncontrolled hypertension to outreach to regarding scheduling appointments/f-up appointments
    - **Patient Self-Management and Support**
      - Provide patients with home monitoring device
      - Promote exercise (walking group, yoga, etc.)
      - Provide access to nutrition support
      - Support medication adherence
      - Patient education regarding hypertension and its effects
      - Incentives for patients to improve self-management ($$, food, gift cards)
      - Model the behavior and reward positive behaviors
WHAT CHANGES DID WE MAKE THAT RESULTED IN IMPROVEMENT?

Process for Selecting Test Ideas

How We Engaged the Patient
“Voice of the Customer”

One clinic was able to follow through with their patient and family engagement outreach, utilizing data from a previous diabetes improvement project to identify patients with a history of poor HbA1c control for outreach. When asked how the clinic could support their efforts to achieve or maintain A1c control, patients responded that they felt the clinic’s support had been sufficient, and that they just needed to do a better job as individuals. This presented a twofold challenge – one, in phrasing the question in a way that invites more reflection, and two, in setting an expectation that care teams can give patients more options and support in achieving health goals than they expect.

How We Engaged Leaders, Providers, and Staff

Between October 2020 and March 2021, SFCCC invited Denise Armstorff, our PHASE coach, to lead our Quality Improvement Committee through a series of exercises that involved developing and implementing a PDSA activity as well as patient-family engagement interviews. QIC representatives collaborated to produce the previously-linked hypertension driver diagram, and were instructed to test a small change, or observe a process involved in the driver diagram. Clinics that successfully accomplished this reported back to the Committee with their findings and lessons learned. These activities were supplemented by group discussions and presentations on building a more robust QI culture.
<table>
<thead>
<tr>
<th>Change Idea Tested</th>
<th>Summary of PDSAs</th>
<th>Adopted, Adapted, Abandon?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group training on PDSA</td>
<td>Consortium-level intervention. SFCCC QIC worked with PHASE coach to train QIC reps on PDSA process and helped them come up with PDSA ideas as well as provide guidance on implementation.</td>
<td>Adopted</td>
</tr>
<tr>
<td>NEMS PDSA: 2\textsuperscript{nd} BP reading</td>
<td>Health center-level intervention. Staff at NEMS Noriega street observed for issues with second BP reading. The correct procedure for second BP measurement was followed in all observed cases. The staff plan to repeat the observation.</td>
<td>Adapted</td>
</tr>
<tr>
<td>MNHC PDSA: Self-monitored BP</td>
<td>Health center-level intervention. MNHC distributed 24 SMBP devices for home use by patients with hypertension. 22 patients took at least one home BP reading, and 15 patients took at least two. Among the patients who took multiple tests, there was a small drop in both systolic and diastolic blood pressure from the first to second reading.</td>
<td>Adopted</td>
</tr>
<tr>
<td>Group training on patient engagement</td>
<td>Consortium-level intervention. Phase coach led activities in QIC meetings that worked through barriers and challenges to patient engagement in QIC.</td>
<td>Adopted</td>
</tr>
</tbody>
</table>
## How Did We Know the Changes Were An Improvement?

### What We Measured

<table>
<thead>
<tr>
<th>Measure Type/Name</th>
<th>Description/Specifications</th>
<th>Baseline %</th>
<th>Target %</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outcome (Directly related to the aim):</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pts with controlled Hypertension</td>
<td></td>
<td>71.68% (Q2 2019)</td>
<td>73.11%</td>
</tr>
<tr>
<td>Pts with good Diabetes control (A1c)</td>
<td>A1c &lt; 9%</td>
<td>75.56% (Q2 2019)</td>
<td>77.07%</td>
</tr>
<tr>
<td>Difference between homeless and non-homeless pts with controlled hypertension</td>
<td></td>
<td>12.34% (Q2 2019)</td>
<td>11.10%</td>
</tr>
<tr>
<td><strong>Process (Steps to achieve outcome):</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pts with A1c measured in past 12 months</td>
<td></td>
<td>81.6% (Q4 2019)</td>
<td></td>
</tr>
<tr>
<td><strong>Balancing (Unintended impact/consequence):</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attendance at QIC meetings</td>
<td>Number of clinic staff vs SFCCC staff attending QIC meeting</td>
<td>10:8 (Feb 2020)</td>
<td></td>
</tr>
</tbody>
</table>
How Did We Know the Changes Were An Improvement?

Results: Run Charts

Clinical Performance on PHASE metrics, 2020

- BP control for those with hypertension
- A1c in poor control
- BP control for those with diabetes

Homeless vs. Non-homeless Hypertension Controlled BP

- Homeless
- Nonhomeless
How Did We Know the Changes Were An Improvement?

Results: Run Charts

This process measure tracks the challenges COVID-19 presented to our PHASE progress – challenges that we attempted to address.
How Did We Know the Changes Were An Improvement?

Results: Run Charts

Balancing

By adjusting the composition of our QIC meeting, we were able to devote more time and space to clinic representatives.
How Did We Know the Changes Were An Improvement?

Here’s What We Learned

Bright Spots/Accomplishments

Through the work we did together in the SFCCC Quality Improvement Committee, we reached several breakthrough realizations:

• Group Exercises got QIC representatives talking about their shared experiences. Even though each clinic serves a diverse, unique patient population, many struggle with similar challenges more than they realized.
• Focusing on QI work oriented the meetings more towards the clinics’ needs. Fewer SFCCC attendees and a different format led to shift towards discussions around clinical and operational challenges, not just report-outs of specific efforts.
• Considering patient engagement as a structural component of QI changed the narrative. Highly generative discussions gave QIC representatives the insight that patient engagement is a key to achieving equity outcomes.

These shifts offer an opportunity to make the SFCCC QI Committee a more regular home for collaboration on PHASE and health equity goals.

In addition, individual clinics were able to implement PDSAs on their own that challenged their assumptions about barriers to quality care and produced results:

• NEMS investigated whether blood pressures were being taken improperly at one of their sites, and observed several screenings
• MNHC’s self-monitored bleed pressure trial saw a majority of participating patients use their home monitors, and on average, patients saw a decrease in blood pressure over the trial period
How Did We Know the Changes Were An Improvement?

Here’s What We Learned

The Challenge of the COVID-19 Pandemic

- QI staff at most clinics were reassigned to other work at onset – QI basically got put on hold
- The pandemic always takes precedence – advocating for QI becomes even more challenging when things are constantly changing in an emergency

<table>
<thead>
<tr>
<th>Challenge</th>
<th>How We Overcame/Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working with many different clinics with different approaches/capacities for QI</td>
<td>Group problem-solving instead of didactic presentations at QIC meetings</td>
</tr>
<tr>
<td>QI projects deprioritized during COVID-19</td>
<td>Dedicated time at Consortium meetings to discussing, planning, and implementing small-scale PDSAs</td>
</tr>
</tbody>
</table>
What’s Next for PHASE/TC3?

Here’s How We Will Continue the Work

SPREAD

In our engagement with our PHASE coach, we have set up a replicable framework for engaging the whole Consortium Quality Improvement Committee on shared health goals. We have gained tools, processes, and practices that can be applied to many different health initiatives and have normalized using shared time at consortium meetings for deep shared-learning experiences. This represents a shift from our old model, which focused more on best-practice presentations and report backs than on problem solving and collaborative thinking exercises, and we can take this approach to other projects that we work on as a group.

SUSTAINABILITY

Sustaining the changes to our work in the SFCCC Quality Improvement Committee will require us to work more diligently alongside our QIC representatives as they work on implementing improvement projects in their health centers. We can accomplish this by devoting time at our meetings to utilizing the methodologies we have practiced in the past six months of work with our PHASE coach, and by applying this framework to existing projects.

THE DESIRED FUTURE

From a clinical quality perspective, we hope to return to our pre-pandemic levels of BP control and reduce the relative disparity between homeless and non-homeless patients by 10% within a year of the public health emergency being over. The techniques and methodologies we practiced this past year should help us strive toward that goal.

One thing that our work has really highlighted over the past few months is that even as a consortium that works with many different health centers that serve very diverse populations, many of the challenges we face in achieving equitable outcomes in QI projects have common components. Our discussions have provided useful insights in this regard. We hope that by bringing these conversations into the shared space of SFCCC’s regular QIC meetings we can continue to develop shared approaches to these challenges that go beyond the realm of best practices and incorporate the real knowledge gained at every level of intervention. One thing that is challenging about this approach is that it is much more time- and resource-intensive than our old approach to quality improvement work. We have devoted time to these projects at each monthly meeting, and both Consortium staff and committee representatives have had additional work to do between these meetings. This approach has led to siloed individual efforts, both within and across our partner health centers. We will need to make changes across many levels of our organizations to make these new approaches systematic, and advocate for the QIC Committee to be a central component of quality improvement work across the consortium.