UCSF Department of Medicine
ZUCKERBERG
SAN FRANCISCO GENERAL

LEAN THINKING IN A LEARNING HEALTHCARE ENVIRONMENT

'Would You Let Your Mother Stay In This Room?'

When the new hospital opened in 2016, Associate Professor of Medicine and ZSFG Associate Chief Medical Officer William Huen, MD, learned that patient rooms were not getting cleaned as quickly or safely as needed. "It took 150 minutes from patient exit to ready, and one in four rooms weren't being cleaned adequately – which is a big deal when we're struggling with things like C. difficile and surgical site infections," said Dr. Huen.

To address this problem, Dr. Huen partnered with Reyland Manatan, Assistant General Services Manager for Environmental Services, who oversees the housekeeping team. They employed an approach called "humble inquiry," developed by social psychologist Edgar Schein, which elicits information and ideas from others rather than telling them what to do.

Dr. Huen and Manatan asked the housekeeping staff what challenges they faced. The team described the difficulties of cleaning rooms in the same amount of time as the old hospital, since the new rooms are larger and each has a private bathroom, shower, and numerous equipment.

Manatan demonstrated cleaning a room, and found that it took him 70 minutes leading to increasing the time from 45 to 70 minutes. "People may think that Lean is about cutting time and costs, but we actually increased the time staff got to clean each room, which is way more respectful," said Dr. Huen, who also serves as Medical Director of the Kaizen (Lean-speak for continuous improvement) Promotion Office.

Staff also pointed out wasted time communicating when rooms needed to be cleaned or were ready for the next patient, leading to the use of a button in each room that pages housekeeping dispatch. "Staff took ownership and made it very personal," said Dr. Huen. "They said, 'Would you let your mother stay in this room?' Now room turnover is faster, and the defect rate went from 25 to 0 percent."

Dr. William Huen (right) facilitating an A3 Thinking training with leaders from the San Francisco Department of Public Health.

Dr. Huen also co-directs the Quality and Leadership Academy, teaching a two-day A3 Thinking workshop to participants at all levels, from departmental directors to residents, to the head chef. A3 is a structured problem solving approach. It documents a process focused on deeply understanding a problem and evaluating possible solutions before implementing one or more and following up.

"The exhilarating part is teaching a common language and approach to problem-solving," said Dr. Huen. "The vision is to have an entire organization of aligned problem-solvers. A3 thinking is essentially the scientific method to improvement work."

Data-Driven Improvement

"In the last 10 years there has been a huge rise in the amount and reliability of data that we can get, and what we can do with it," said Claire Horton, MD, MPH, Associate Professor of Medicine and Medical Director of the Richard Fine People's Clinic (RFPC).

The clinic has developed registries for patients with diabetes and hypertension C, which can be used for targeted patient outreach for health care maintenance such as cancer screenings and vaccinations. Registry data also lets providers know how their panels are doing compared to local and national benchmarks. The clinic also collects information about utilization, operations, and patient and staff experience that can help improve care delivery.

In April 2017, the RFPC joined three other primary care clinics in the San Francisco Health Network in piloting the Lean daily management system approach. "Lean includes all the fundamental elements of quality improvement, particularly the involvement of people at all levels of the organization and the methodical planning method of thinking about a problem," said Dr. Horton. The RFPC has incorporated the A3 framework for problem

solving, daily huddles and leadership report-outs to support troubleshooting. A few recent examples of RFPC QI projects include:

Consistent team pairings: Through questionnaires, the RFPC found that helping providers consistently work with the same medical evaluations assistants (MEAs) was an important driver of satisfaction. Compatible pairs are like a well-oiled machine, said RFPC Nurse Manager Philippa Doyle, RN. "There's a rapport that develops," she said. "They know what to expect and how to work together."

Dr. Lukejohn Day

ZSFG Associate Chief Medical Officer for Specialty Care and Diagnostics

However, with 83 providers – including attending physicians, residents, and nurse practitioners – and 16 MEAs, consistently pairing providers and MEAs is challenging. Braden Mogler, MD, a primary care internal medicine resident, along with Doyle, RFPC Associate Medical Director and Assistant Professor of Medicine Lisa Ochoa-Frongia, MD, Lead MEA Joyce Chong, MEA, and pre-medical student David Lee, developed schedules and procedures that increased the rate of consistent provider-MEA pairings to 80 percent. "The MEAs take great pride in watching residents develop into wonderful primary care providers, and being part of that process," said Doyle.

Hospital post-discharge follow-up: Patients discharged from the hospital are vulnerable because they are sick and often have new medications. To help prevent readmissions, MEAs in the RFPC and other primary care clinics call patients within seven days of discharge. They ask how patients are feeling, whether they have symptoms like fever or shortness of breath or problems obtaining or taking medications, and discuss upcoming follow-up appointments. This initiative has boosted visits occurring within seven days of discharge from a baseline of 40 to 50 percent three years ago to 70 percent as of September 2017 .

Improving Patient Satisfaction

Four years ago, less than 15 percent of specialty clinics in the San Francisco Health Network offered patients an appointment within 21 days. Some clinics had wait times of over a year. "We've completely flipped that," said Lukejohn Day, MD, Associate Professor of Medicine and ZSFG Associate Chief Medical Officer for Specialty Care and Diagnostics, who leads QI work in the network's 67 specialty clinics. "Now 92 percent of our specialty care clinics have a wait time of under 21 days."

Achieving this was a huge team effort. Leadership and frontline staff created systems for tracking wait times and implemented multiple interventions. Clinics developed transfer criteria – procedures for determining when patients could be referred back to their primary care providers for follow-up. Some specialties offered weekend or evening clinics to reduce backlog and see more patients

Telehealth enabled primary care medicine and HIV clinics to submit images of dermatologic problems or retinal screenings that specialists review remotely, providing treatment guidance in a fraction of the time required by in-person appointments. The diabetes and pulmonary clinics started group education classes for patients recently diagnosed with diabetes, COPD and asthma, teaching them about their disease and allowing for group discussion. "Not only could those clinics see more patients, but they also reported better outcomes," said Day.

Staff of the Richard Fine People's Clinic meet for an improvement huddle, including (from left) Emily Cedarbaum, MD, MPH, third-year resident; Robin Grotch, RN, charge nurse; Michael McGuire, BA, practice manager; and Ilya Golovaty, MD, medicine fellow. Inset: Dr. Claire Horton

Much of their success comes from a multi-pronged approach. "We learned that leadership, patience, engaging the staff, and data are really important," said Day. "There's not just one solution. It's several solutions, coming from different angles, which resolve the issue and help to sustain results."

Day and his colleagues are also improving integration between primary and specialty care. Specialty care clinics now ask patients whether they've received their annual flu shot, and can vaccinate patients during their specialty care appointment rather than referring them back to their primary care doctor. "Before we started the project, the flu vaccination rate was around 35 percent and we've been able to get that up to 68 percent," said Day. The goal is to boost that to 85 percent by the end of flu season.

Clinics established baseline vaccination rate data, mapped out workflows, piloted offering the flu shot in a few specialty clinics, and streamlined the process of screening, administering and logging the shots in the computer. The whole process takes less than two minutes per patient. "We're trying to be much more proactive when we see patients to improve their overall health, regardless of the type of visit," said Day. "Staff like it, because they know the importance of getting the flu vaccine and see they're making an impact."

Elizabeth Chur

SPOTLIGHT

Monica Gandhi MD received the HIV Medicine Association Clinical Educator Award.

Elizabeth Murphy, MD has been appointed to the Deborah Cowan Endowed Professorship in Endocrinology.

Terence Friedlander, MD has been named Chief for the ZSFG Hematology-Oncology Division and Associate Director for ZSFG of the UCSF Comprehensive Cancer Center.

Rebecca Schwartz , Clinical Social Worker in the HIV, ID, and Global Medicine Division, received the SPIRIT of DOM Award, which recognizes staff members who embody Staff Professionalism, Inspiration, Responsibility, Integrity, and Teamwork.