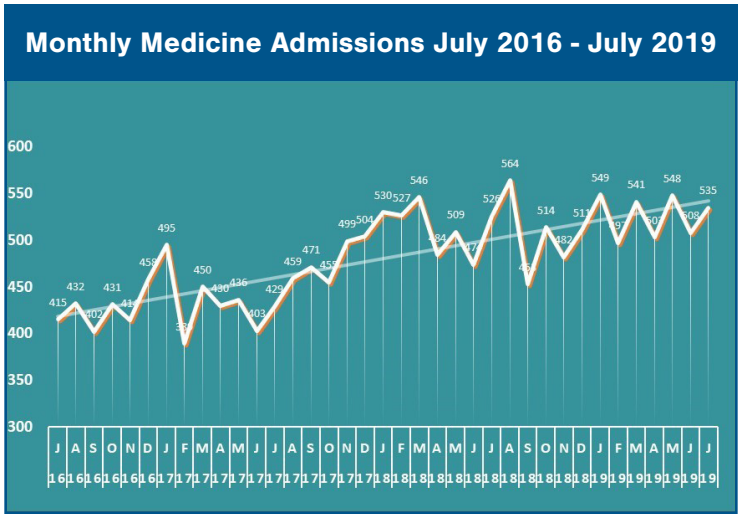
UCSF Department of Medicine
ZUCKERBERG SAN FRANCISCO GENERAL

CARING FOR AN EXPANDING NUMBER OF INPATIENTS

Since ZSFG opened the new hospital in May 2016, the number of inpatients has increased by about 7 percent per year, resulting in a major impact on trainees, faculty and staff.



The Challenge

"Since the new hospital opened, the number of patients who are being seen in the emergency room has also steadily risen," said Sumant Ranji, MD, Professor and Chief of the ZSFG Division of Hospital Medicine. "It's a pretty linear relationship." This is part of a national trend, in which ERs are increasingly busy, and at ZSFG resulting in more admissions to Medicine inpatient services.

But exactly what drives the increased ER visits and hospitalizations is unclear. Some theories include that the beautiful new hospital might be more appealing to patients, or that the Affordable Care Act has increased the number of patients with access to care. Growing income inequality may also be a factor. Dr. Ranji estimates that one in three hospitalized patients at ZSFG is homeless, but thinks that is just the tip of the iceberg. "Many of our patients don't have stable housing," he said. "A lot of them are couch surfing, living in a single-room occupancy hotel room, or staying in a two-bedroom apartment with 12 other people."

There are also a significant number of "lower level of care" patients who stabilize medically but lack a safe place to go after discharge. "These are usually people who were just barely making it, then got sick and ended up in the hospital, unmasking a situation that is not safe," said David Chia, MD, MS, Assistant Professor and Site Director of the UCSF Internal Medicine Residency Program.

Such patients could include someone with permanent brain damage requiring custodial care, or a marginally housed patient with dementia who can no longer live independently. Many remain hospitalized for two to three months while their care team looks for an appropriate placement – contributing to the high census numbers.

The Accelerating Treadmill

These rising numbers put increased pressure on the entire care team. The combined average daily census in the medicine and medical intensive care unit was 80 patients in academic year 2016-17, but rose to 92 patients by 2018-19. The census appears to have leveled off in the last few months, but there is no guarantee the plateau will continue.

But census numbers don't tell the whole story. The process of admitting and discharging patients is especially labor-intensive, and hospital admissions have increased at a faster rate than the census.

"This results in what we call 'work compression,'" said Dr. Ranji. "There is more work to do in the same amount of time. We have responded to the increased numbers by working harder and trying to be more efficient, but you can only increase the speed of the treadmill so much."

"This also limits the residents' learning opportunities," said Dr. Ranji. "If you have a complicated patient and don't have that extra 15 minutes to look something up, call their primary care physician, or spend additional time answering the patient's questions, that's a missed learning opportunity. It also means that people cannot provide care in the way that they want, which leads to burnout and moral distress."

In addition, residents are now required by the Accreditation Council of Graduate Medical Education (ACGME) to limit their work hours to 80 per week. Last year, the UCSF internal medicine residency program was cited for violating these limits, largely driven by the increased census numbers and admissions rates.

Sharing the Load

"The residents have such a positive attitude, and do their best to make the situation work," said Dr. Chia. "But the status quo is not sustainable, and there is a lot more that we can do to improve their experience. The departmental and residency leadership understand the challenges the residents and faculty face, and we are doing everything we can to advocate on their behalf."

"We have taken a rigorous, data-driven qual-

ity improvement approach to understand the problem, define targets for improvement, and implement and assess the effectiveness of our countermeasures – before this really becomes a crisis," said Dr. Ranji. He and his colleagues developed an algorithm to distribute newly admitted patients among various care teams so each has a comparable workload. "We try to level-load the services, so teams take as many patients as they can, without becoming overworked," he said.

Sumant Ranji, MD

During busy times, faculty attendings take on some resident tasks, such as writing notes and going to interdisciplinary rounds. "This allows residents to work on things that are most important for patient care, and to prevent duty hour violations," said Dr. Ranji.

The medicine and cardiology inpatient services have created a census-sharing protocol with the Department of Family and Community Medicine, which has seen a similar increase in their census. "We take care of the same kinds of patients, and if one group is less busy, they can admit patients that normally one of the other teams would admit," said Lisa Winston, MD, Vice Chief of the ZSFG Inpatient Medical Services and Professor in the ZSFG Division of Hospital Medicine.

"It's been a very good experience, helping us provide better patient care, spread the workload, and develop a relationship with our Family and Community Medicine colleagues," said Dr. Winston. "We've gotten to see what their best practices are, and they also learn from us. We all share responsibility for our patients and trainees, and some of the solutions we are looking at will probably be cross-departmental."

She and her colleagues also collaborate closely with the ZSFG Department of Care Coordination. "Many of our patients have very complicated social situations, and we are optimizing the way we work with our social work and utilization management colleagues," said Dr. Winston.

Optimizing the Resident Experience

"We wanted to improve provider quality of life, especially for interns who are getting used to their new role at a new institution as full-fledged physicians rather than medical students," said Dr. Chia. To support this effort, the internal medicine residency program reduced the patient caseload for each medical team from 18 to 16 during the first three months of the academic year. The program also eliminated the practice of "super-capping" – assigning extra patients to resident teams if there were a large number of patient admissions. Medicine faculty attendings now oversee care for these patients, in addition to their consultation duties.

Dr. Chia and his colleagues are piloting an "admissions surge moonlighter" position, inviting faculty, residents and fellows to volunteer for paid on-call shifts between 6 p.m. and 10 p.m., the busiest admissions time. "When admitting teams are overwhelmed, this person can come in to assist with admissions, and can still perform their daytime job," said Dr. Chia.

This position also helps to protect the jeopardy pool, which are residents on standby to fill in for colleagues who get sick or have a family emergency. "Jeopardy is a very finite resource that we try to preserve as much as we can," said Dr. Chia. "We try to avoid using it just to meet our service needs, because being called in has significant impacts on resident well-being and duty hours."

David Chia, MD

The residency program also introduced a consult cap for residents on the cardiology service. Once those residents admit a certain number of new patients, cardiology consults are redirected to the cardiology fellow to avoid overburdening the resident. In addition to the five medical resident teams who take care of inpatients, there are also two faculty hospitalist teams who are not involved with teaching residents. Last month, a third faculty team was inaugurated, thanks to two-year funding from hospital leadership.

"We are very grateful that this new team is here, and think it will be very helpful," said Dr. Winston. "But we suspect that by itself, it's not going to be enough to rightsize the resident workload. We're trying to make our processes efficient, but it's also important to think about the overall numbers that people should be taking care of. We want to make this an optimal training environment for our residents, which isn't all about getting your work done as fast as you can. We want people to do things that contribute to their learning and their enjoyment of medicine, like building relationships with patients."

Lisa Winston, MD

Dr. Chia agreed. "Everyone is doing 110 percent to keep this hospital operating at its optimal efficiency," he said. "When we are busy, it stretches the physical therapists, social workers and utilization managers."

In our common mission, the Department of Medicine is working in partnership with hospital leadership and other departments (e.g. Family and Community Medicine) to overcome these challenges. Some proposed solutions include adding physicians to the workforce at peak times and cohorting patients who do not have acute problems to special teams.

"We have a really strong sense of mission here, which is key," said Dr. Winston. "Our systems have to work for our patients, and that is at the forefront of our minds all the time."

Elizabeth Chur

Editors: Neil Powe, Laurae Pearson

SPOTLIGHT

Addiction Care Team awarded $3 Million

The **Addiction Care Team**, led by Director **Marlene Martin, MD,** Assistant Professor, Hospital Medicine, and Associate Director **Hannah Snyder, MD**, Assistant Professor, Family and Community Medicine, received a $3 million donation from Kaiser Permanente. The gift was announced at San Francisco General Foundation's annual Hearts in SF event on February 13.