

Inside Boston Medical Center: The heart of the coronavirus storm

In the city's safety-net hospital, seven out of 10 admitted patients are sickened by COVID-19

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April 18, 2020

The sidewalks around Boston Medical Center, usually thronged with patients and families, are eerily still. Only one entrance is open.

The impression of quiet could not be more wrong. To enter BMC today is to arrive at the heart of the coronavirus storm.

For more than 150 years, the hospital at the edge of Boston's South End has taken pride in caring for the city's most vulnerable patients. But now as the coronavirus ravages the communities BMC serves, the city's safety net hospital by necessity has become essentially a COVID-19 hospital. The pandemic hit here first and hit here hardest.

At midweek, seven out of 10 patients admitted to the hospital were seriously ill with coronavirus, and a quarter of them were in intensive care.

Reflecting the pandemic's disproportionate toll on minority communities, 82 percent of coronavirus inpatients at Boston Medical Center are Black or Hispanic. In comparison, during the previous year, 60 percent of patients admitted for any illness were Black or Hispanic. Twelve and a half percent of COVID-19 patients are homeless, compared with 9.5 percent of all admissions previously.

The hospital, a sprawling complex off Albany Street, has responded to the crisis with a rapid reorganization of its physical space and a recalibration of services, changes shown to a Globe reporter who visited last Wednesday. Special cameras have been placed in some coronavirus patients' rooms, enabling nurses to keep a closer eye on patients. The usually packed endoscopy waiting room was empty, its treatment space repurposed for other needs.

Dr. Ravin Davidoff, chief medical officer, said the crisis has drawn employees into new roles. "We have people volunteering to go all over the place to work," he said in an

interview in his office. "People are saying, 'I'm a surgeon, I'm not that good at being an internist, but tell me what to do and I'll try to do my best.'"

Davidoff worries about patients they aren't seeing — who may be seriously ill but avoiding the hospital, with repercussions that won't become clear for weeks.

Still, as the hospital cared for more than 200 coronavirus patients late last week, he freely accepts the label of "COVID hospital."

"Being a COVID hospital is just what we do," he said. "We take care of people who are sick. It's our work."



A nurse wore full personal protective gear while caring for an intubated COVID-19 patient at Boston Medical Center. ERIN CLARK/GLOBE STAFF

Anyone familiar with the role of race, poverty, and social conditions in determining health outcomes would not be surprised that the pandemic has hit Boston Medical Center's patients so swiftly and so hard. Many have the kind of preexisting conditions common among the marginalized, such as diabetes or asthma, which make them more likely to get seriously ill from COVID-19. Most live in Boston's dense urban core, where

social distancing is difficult, and work at low-wage jobs involving interaction with the public — jobs they can't afford to quit.

“The patients that we serve,” said hospital president Kate Walsh, “are essential workers and are going to work driving Ubers, delivering Amazon packages, and had less opportunities for social distancing.”

As a result, Boston Medical Center was the first Boston-area hospital hit with a sudden surge in patients, and continues to face a far higher percentage of COVID-19 patients than most other hospitals. With 410 adult beds, Boston Medical Center has, proportionally, the biggest coronavirus load, according data gathered by the Globe.

Boston Medical Center these days looks and feels different — as do other hospitals that have restricted visiting and canceled services to limit disease spread.

The quiet on the sidewalks outside is one difference. At the entrance on Wednesday, a staffer who once worked in the orthopedic clinic and a former operating room nurse were taking the temperature of everyone who entered and asking them if they've felt ill.

With most people staying home, fewer are getting hurt in car crashes and sports injuries, reducing trauma admissions. But, in a profound mystery that other hospitals have experienced, Boston Medical Center is seeing fewer patients with life-threatening emergencies, such as strokes and heart attacks, for which a hospital trip would not seem optional.

Physicians here worry about even the potentially skippable visits. Most outpatient visits have stopped. Of the 4,000 who normally come for doctor's visits each day, 1,500 are staying in touch by phone or Internet, and 500 have come in person, said Walsh, the hospital president. But she is concerned about the remaining 2,000, wondering if they are suffering silently and away from needed help. Similarly emergency room visits are down by half, from 400 visits per day to 200. Davidoff believes sick people who need medications and advice are not coming in for care, and worries about the consequences of that.



Boston Medical Center RN Helen Connelly cried tears of joy after saying goodbye to patient Candace Samayoa. ERIN CLARK/GLOBE STAFF

Meanwhile, the surge of very sick COVID-19 patients can be overwhelming. Two weeks ago, the hospital faced 72 patients needing intensive care for COVID-19 and had only 63 ICU beds, forcing the transfer of nine patients to other city hospitals. That incident served as a citywide wake-up call, Davidoff said. "That alerted many around town that 'Hey, this is upon us,'" he said.

It also lit a fire under the hospital's own efforts to adapt.

Like other hospitals, Boston Medical Center had already canceled elective services. It stopped admitting children, referring them instead to Boston Children's.

As part of new configurations of the space, those who don't need intensive care have moved to the children's floor. Additional space was cleared by moving medical-surgical patients — such as people waiting or recovering from procedures — to the endoscopy suite, where they stay in curtained bays rather than rooms.

And the hospital has boosted its ICU capacity to well over 70 patients, with the potential to treat up to 120 if necessary by repurposing spaces such as the radiology suite.

The week before last, the fifth-floor step-down unit — intended for patients recovering from an ICU stay — transitioned to a new role as a full-fledged ICU. But that took some adjustment, and touch of ingenuity.

“This team had to be incredibly flexible,” said Nancy Gaden, the hospital’s chief nursing officer.

Although 10 percent of employees were furloughed, others have stepped up to take additional shifts or new responsibilities.

Luckily, the nurse manager in the step-down unit, Beth Solari, already had experience in critical care. In accordance with new crisis-management guidelines, Solari has paired ICU-trained nurses with the step-down nurses, and each two-person team takes care of three patients.

“The ICU nurses and step-down nurses have worked so well together,” Solari said. “Now it’s sort of like a well-oiled machine.”

Solari says she has enough nurses, so far. Many have volunteered to take on extra 12-hour shifts, and the hospital has started hiring traveling nurses who specialize in critical care.

In a normal ICU, all the rooms’ walls and doors are glass, enabling nurses to keep an eye on patients at all times. Here, there are opaque doors that have to be closed for infection control. So the nurses deploy cameras normally used for patients at risk of falling out of bed, and train them on all the COVID-19 patients. From the nurses’ station, they can move the cameras and can even zoom in to read the settings on the ventilator.

Normally, nurses put on full protective gear only for certain patients with highly contagious illnesses. But now, with all patients on the unit considered highly contagious, nurses have to don a gown, two pairs of gloves, a mask, and a face shield before entering a patient’s room. The face shields are a new requirement with COVID, to protect the eyes, where the virus can enter. Nurses are wearing plastic carpenter’s face shields or disposable shields developed at MIT.

They try to complete all their tasks in a single visit to each patient’s room, because the protective gear is scarce and time-consuming to remove safely.

Working exclusively with COVID-19 patients is exhausting and stressful for the staff, said Avital Rech, ICU nurse manager. Patients seem to get better and then suddenly get worse. Nurses wearing heavy protective gear sweat through three hours of work when they enter the room. With visits by family members banned, they're often the only ones who are with the patients, sometimes holding their hands as they die.

"We've had many people who are quite young die," Rech said. "It's hard to see that every day."



Signs decorated the walls of Boston Medical Center to say goodbye to patient Candace Samayoa. ERIN CLARK/GLOBE STAFF

But plenty of people inside and outside the hospital want to support the staff. Donations from Rech's Facebook friends have enabled her to buy lunches and coffee for them, and she works to make sure they have the equipment they need.

Offered a bonus for extra shifts, many nurses are working additional hours. "Thank God," Gaden whispers. Asked if she was worried about her staff, Gaden said, "Yeah, it's a pandemic, I'm worried. I'm worried that everyone is exhausted and overwhelmed."

Caught off guard by the surge two weeks ago — the additional ICU space had not yet opened — Boston Medical Center is now looking ahead, using modeling to anticipate the needs going forward.

“We started out being reactive, but now every day we talk about what’s tomorrow,” said Davidoff, the chief medical officer. And while the numbers change daily, Davidoff said the hospital is on track to meet the needs even in a worse-case scenario. The biggest challenge will be finding enough critical care nurses, he said.

Walsh, the hospital president, said that the hospital has drawn from experiences overseas and in New York City to foresee what lies ahead.

At every hospital, doctors are struck by how sick COVID-19 patients can get, and how quickly, Walsh said.

But, she added, “People do recover. That part is really heartening.” As of Wednesday, 271 COVID-19 patients had been discharged from Boston Medical Center.



Boston Medical Center patient Candace Samayoa waved goodbye to nurses as she was being released from the hospital. Samayoa had been admitted to BMC two weeks earlier after testing positive for COVID-19. ERIN CLARK/GLOBE STAFF

One of those going home on Wednesday was Candace Samayoa, who had spent two weeks on 7 West, formerly a medical-surgical floor that is now COVID-only. Samayoa, 51, said she suffered from a cough and diarrhea. A double amputee, she lives in a skilled nursing facility, and couldn't stay there to recover because she would put other residents at risk of infection.

The nurses gave Samayoa a "Certificate of Achievement" for completing her treatment, and hung hand-lettered signs declaring "We will miss you" and "Keep kicking butt."

And as she rolled into the hallway, on her way back into the world, everyone burst into applause.