

## Case Study: Facing the Unknown

*In this Q&A, Sabiha Raof, MD, FACR, describes how she and her colleagues in Queens, New York, responded to the unprecedented COVID-19 surge in early 2020.*

### Key Takeaways:

- As New York City became one of the first hot spots of the COVID-19 pandemic, the teams at Jamaica and Flushing hospitals in Queens worked frantically to understand the new disease.
- At the peak of the 2020 spring surge, the two hospitals had 550 COVID-19 patients, and 150 of those patients were on ventilators.
- Raof and her team overcame their fear of the unknown to care for patients. Their prior emphasis on health equity and value-based care helped them respond to the pandemic.

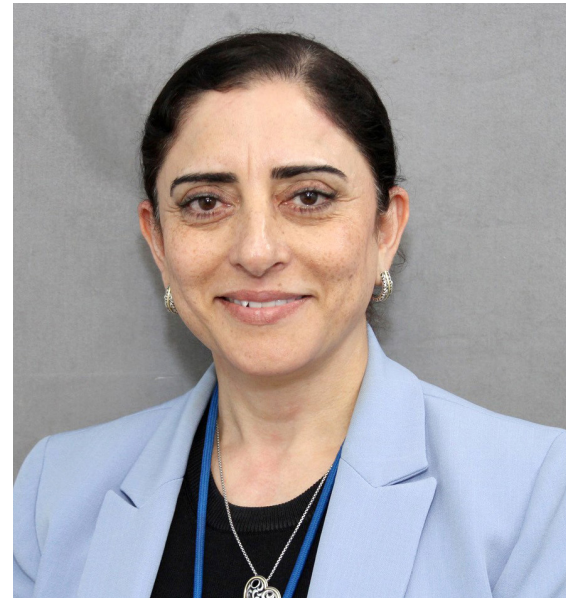
In the spring of 2020, New York City became the epicenter of the COVID-19 pandemic in the U.S. At Jamaica and Flushing hospitals in the New York City borough of Queens, Sabiha Raof, MD, FACR, chief medical officer and patient safety officer at MediSys Health Network, which includes Jamaica Hospital Medical Center and Flushing Hospital Medical Center, and her colleagues relied on their disaster response experience to care for the flood of COVID-19 patients who came through the doors.

While Raof and her colleagues have responded to some of the most monumental crises in modern times — including the 9/11 terrorist attacks, Hurricane Sandy in New York, and even Hurricane Katrina in New Orleans — nothing could fully prepare them for the unfolding pandemic. Still, many lessons learned during those disasters proved essential to their COVID-19 response.

In October of 2020, Raof who is also chair of the department of radiology at Flushing Hospital, sat down for this Q&A to discuss what it has been like facing this new disease and how communication, cooperation, education, and employee wellness have been central to her team's response.

**Q. In early 2020, were you watching what was happening in China and in other countries? Did you know that the COVID-19 virus was heading your way, or was it a shock when you started seeing cases?**

**A.** We knew COVID-19 was coming. MediSys Health Network has two hospitals: Jamaica Hospital, which is our main hospital with a Level 1 Trauma Center, and Flushing Hospital, which is a smaller community hospital. Jamaica is the hospital that caters to both of the major airports, John F. Kennedy International (JFK) and LaGuardia, here in New York City. JFK is where international flights come in. Whenever there is an issue that involves passengers coming on international flights, we are notified, and we are the standby hospital. When this whole thing started in China in early 2020, U.S. immigration authorities started screening flights coming from China. We were put on a standby that any suspicious COVID-19 patients coming to the airport would probably end up in our emergency room (ER).



Sabiha Raof, MD, FACR, chief medical officer and patient safety officer at MediSys Health Network, helped lead the COVID-19 response at Jamaica and Flushing hospitals in the New York City borough of Queens.

We were keeping an eye on the virus before it actually started here.

**Q. When did you realize that the pandemic had actually reached your community?**

**A.** On March 3, 2020, we had our first case. Back then, it was thought to be more of a respiratory disease. Everybody was looking for respiratory symptoms and patients presenting with fever, cough, and abnormal chest X-rays. When we had that first patient on March 3, we did not initially realize it was a suspicious COVID-19 case. Our physicians and nurses were not masked for that patient, so we did have some exposures.

At that time, the big dilemma was the changing recommendations from the Centers for Disease Control and Prevention (CDC). Initially, the CDC said that for suspicious patients, we should use Level 2 personal protective equipment (PPE). We got all our staff trained to do that. We had done that for the Ebola outbreak also. Literally within the first week, the CDC changed

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their recommendation and downgraded the PPE requirements. This created confusion among the staff. We had to show them the new CDC guidelines, re-educate them, and re-train them.

We quickly realized that COVID-19 patients were coming in not just with respiratory symptoms. We had a lot of patients initially who would present with abdominal pain. We would do a CT scan to rule out appendicitis or something else. Then, as we were scanning these patients, we were finding infiltrates in the lungs and realizing these were COVID-19 patients. We had stroke patients who came in, and they turned out to be COVID-19 related. The initial presentation was changing so fast. That was a big challenge at that time.

### **Q. When you say “screening,” were you doing CT exams?**

**A.** The ACR and all our radiology societies were recommending not using CT as a screening test for COVID-19. We were not screening our patients with CT, but we are a trauma center and do a lot of CAT scans. The protocol for trauma is chest, abdomen, pelvis CT. As we did CTs on trauma patients’ chests, we realized many of them were COVID-19 positive.

We were using the recommended polymerase chain reaction (PCR) testing to diagnose COVID-19. In New York, the requirement at the time was to send all PCR tests to the New York Department of Health lab. Initially that lab was inundated, and the turnaround for getting a result back was almost a week. We sometimes had to keep our patients in the ER setting while we waited because we didn’t want to move any patients to the floors without knowing if they were COVID-19 positive or not.

Eventually, the lab’s turnaround time improved, but it was still several days before we received the results. This created a bottleneck for our patient flow. Our labs did have the capability to perform the tests on site, but all testing materials were being diverted to department of health laboratories.

### **Q. Can you tell me what was going on at the height of the surge and how you and your team maintained your morale?**

**A.** On our peak day, in the two hospitals, we had 550 COVID-19 patients, and 150 of those patients were on ventilators. Normally, when we’re busy, we have 25 to 30 patients on ventilators. Not only was it physically draining, seeing how quickly these patients were decompensating and the number of deaths that were happening, it was emotionally draining for the staff, as well.

We had been focused on employee wellness even prior to COVID-19. We realized early on that we needed to do something for our employees during this crisis to keep their morale high. We had closed our inpatient psychiatry, so that staff was free. They very quickly put together a wellness program. They offered a hotline where our employees could call and talk to somebody. They also had teams going to the units and floors, talking to employees and providing emotional support.

From outside of the hospital, there was a lot of community support. We had tons of people coming every day to the hospital, supporting the employees, and bringing in food. We received a lot of donations of PPE from local organizations and doctors’ offices. The employees really felt that this community was supporting their work. People would come and write messages of support and encouragement on the footpaths. They would send letters to the employees in the hospital, thanking them for taking care of this community. It was really heartwarming to see.

With the surge, all flights were canceled at JFK and many airlines had furloughed their employees. Borrowing from a popular effort in the United Kingdom, some of the airline employees approached us and said that they would create a first-class lounge experience for our employees. We gave them a space within the hospital lobby, where families of surgical patients usually wait. Since we weren’t doing elective surgeries, that area was not being used as a waiting room. They created a first-class lounge there.

The airline employees would cater to our team, bringing them coffee, cookies, and other things. They would sit and talk with them. They are used to improving the experience of their clientele and have training in providing compassion. It became a popular program at both hospitals. They did a tremendous job, really serving our employees during those months.

### **Q. With the changing protocols from the CDC and all of the unknowns, how did you keep staff informed throughout the response? What communication process did you use?**

**A.** Jamaica and MediSys have been very involved with disaster response. When 9/11 happened in New York, our ambulances were among the very first responders to be on the scene. Actually, we lost one of our ambulances when the buildings came down. Luckily, we didn’t have staff inside. Then, when Hurricane Katrina happened, we sent our teams to New Orleans, and they stayed there for a month helping them out. We sent our teams to Puerto Rico in the aftermath of Hurricane Maria in 2017, and our team responded when Hurricane Sandy struck New York in 2012. We have a

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very strong emergency management department, and we have experience with dealing with these disasters.

When we were initially preparing for COVID-19 in late February/early March, our emergency management department created a different team. We had a taskforce for COVID-19 with six subcommittees. Each subcommittee was in charge of a particular area, like supply chain, human resources, communication, etc., and I was leading the clinical work group, which developed the protocols for caring for COVID-19 patients with new medications and trials.

We also had a group that was dedicated to staff training and communication. That team was constantly keeping up with CDC guidelines and conducting training for staff on all shifts. If somebody came and said, "I don't remember how to do this," there was a team that was there, holding their hand, getting them through it. Having those subgroups really helped us through this pandemic. The groups shared a lot of communication, emails, policies, and procedures with our employees. Our CEO also sent out video messages each week updating the employees with any new information related to COVID-19.

**Q. It sounds like you've responded to a lot of major disasters, so you had a plan in place and activated it in a new way for the pandemic?**

**A.** Yes, but a major factor in this pandemic was a fear of the unknown. People were really scared about their own lives and their loved ones when they had to go home. Very early on our administration prioritized securing PPE for our staff. We felt that if they had the N95 masks and the gowns and everything that they needed, they would be more relaxed and feel safe taking care of our patients. Luckily for us, we did not have a time when we did not have proper PPE. Our supply chain team worked closely with different vendors to get the supplies in. We also worked with the department of health and the state to get supplies from the stockpile. We got donations from local organizations and doctors' offices.

**Q. Did you have any staff who became infected?**

**A.** During the first week or so, the CDC said that if there was a positive patient or if anybody was coming in contact with those patients, they needed to quarantine for 14 days. Within the first week, patients were arriving at the ER, as I said, with different presentations, and we didn't know they were COVID-19 patients. Our staff was getting exposed and had to go on quarantine for 14 days.

That first week, we had 100 employees who had to go on quarantine. It put us in a difficult situation as we did

not have enough staff to cover the ER. Then the CDC and Department of Health changed their guidelines and said that only people who came in contact with symptomatic patients had to quarantine for 14 days. But, yes, we did have ER physicians, nurses, and residents who were sick. At that time, not everybody was getting tested, so we can't say definitively that they had COVID-19, but they were sick.

**Q. You mentioned that during much of the initial COVID-19 response, you wore your chief medical officer hat. What did that entail and what was happening in radiology at the time?**

**A.** As the chief medical officer I was involved with the clinical needs throughout the network. I was working with my clinical chairs to make sure all of our services were covered. I was working with my administration to arrange for supplies and patient transfers and with governmental agencies to get as much help as we could get from them.

When New York Governor Andrew Cuomo mandated that all hospitals cancel elective procedures, all of our outpatient volume here in radiology was gone. The only patients who we initially continued to see were cancer patients who were in the middle of their workup. We were calling patients who had mammographic findings or ultrasound findings, and saying, "We will still provide care for this."

That said, we are a Level 1 Trauma Center. Trauma cases continued to present in the ER, and we got that volume. The one area in radiology that increased was portable chest X-rays. A lot of these patients were getting sick very quickly and decompensating. The portable chest X-ray volume increased significantly. Other than that we had very little volume in CT, MRI, and ultrasound.

We made a decision to have some of our radiologists read from home. We were rotating them so that the whole team was not here in person. We figured that if they got sick, not everybody would get sick at the same time. For our technologists, we changed from 8-hour to 12-hour shifts to accommodate rotating schedules. We had teams that would work together, and then when they were off, the next team would come so that they didn't cross-infect each other.

**Q. What would you say was the biggest challenge facing the radiology department, and how did you address it?**

**A.** The same challenge that we had with employees elsewhere: fear of the unknown. We did not know that this disease could present in so many different ways. And the disease's level of infectiousness was scaring

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everybody. We just needed to make sure that our staff felt protected and safe. Every morning without fail, I would walk around my radiology department here and at Flushing and talk to people, making sure they were okay and felt safe. If they didn't have a mask or needed something, I wanted to make sure I resolved those issues. That constant communication directly with them and showing that you care, not just for them at work but also for their families and making sure that all their needs are met – that was important. That helped a lot.

**Q. Did you and other members of your radiology team take on roles outside of your typical duties as part of the response?**

A. I was involved because of my role as chief medical officer, but we did meet with all the radiologists to let them know that they might have to help in other areas of the hospital. For example, I have three interventional radiologists who were aware that, if we needed to take care of patients on the floors and we were running out of physicians, they would be asked to do that. They were prepared to do that. One of our radiologists had been an internal medicine doctor and is board certified in internal medicine. He knew that he could get called on to help.

Fortunately for us, we did not get to a level where we had to pull them to do other jobs. Because we closed all our ambulatory sites, all our ambulatory physicians came to do inpatient work. We opened a number of inpatient floors, and they helped cover the floors. We also had team members from the International Medical Corps, a volunteer group out of Santa Monica, California, that does disaster response all over the world, come help us. They provided us with some physicians, physician assistants, EMTs, and ancillary staff. That helped.

One area where we really got hit was critical care. For the first month, our critical care physicians were working 16- to 17-hour days, non-stop, without a break. Luckily, I had some connections with the American College of Chest Physicians. They gave me volunteer intensivists who came and helped us out and gave some relief to our intensivists.

**Q. We've learned a lot about health equity throughout this pandemic. Your hospitals serve incredibly diverse patient populations. In terms of health equity, was there anything in particular that you saw or learned through this process that you know you need to focus on?**

A. Because we are safety net hospitals, both Jamaica and Flushing, we have been talking about health equity for a long time. This pandemic has made it even

clearer that socioeconomic factors affect patients' health. Patients in lower-income communities and communities of color saw more deaths. They saw more sickness because there are so many comorbidities. There are so many social needs in this community, which is very different from other areas of New York or other areas in the country. I think a lot of focus is now going to be put on those socioeconomic factors that affect patients' health. We saw that in our communities because they have so many other needs, their outcomes were very different from patients who are in other areas of New York.

We are in a value-based arrangement with Healthfirst, which is a health maintenance organization, or HMO. We have a very large capitated patient population, about 160,000 patients. The capitated arrangement is the most advanced program in a value-based system. We take full risk for this patient population. Our performance is based on evaluating quality metrics that we have to meet. We have a strong care transitions team, which has helped us very much because during this pandemic, that team is constantly reaching out to our patients, making sure they have medication, ensuring that all their health needs are met, and checking on them. Sometimes they were the only people that were calling those families. They would tell our team that they lost a spouse or they lost a family member. Our team was the first team that had reached out to them to provide them with any kind of support. We have a lot of work to do in this patient population, and we are trying our best.

**Q. What's one thing you're really proud of?**

A. We are extremely proud of our staff. They all went above and beyond their job descriptions to take care of our patients. Yes, they were scared, but they didn't try to stay away from the infectious patients. Our staff was just unbelievable. Many of them ended up isolating themselves to keep their own families safe. They were living in their basements or were not even going home, just to protect their own families. It was just incredible.

**Q. At what point did your department return to elective imaging and all the other services?**

A. In New York, the governor made a blanket rule for stopping and then restarting all elective procedures. He gave the go-ahead to restart elective procedures in early June. We started with 25%. We saw how that was going. Then we went to 50%. Even though we are fully opened up now, we are only at about 70% capacity. Our ER normally sees 350 patients. We are at about 240-250. We're still not back to full volume. People are not ready, in spite of doing a lot of education. That's another thing that we had requested the Department

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of Health and the governor here do: we really need to educate people and tell them that it's safe to come back to hospitals.

A lot of media ads spoke to this need. Our hospital has sent text messages to all our patients. We have done social media announcements, trying to tell patients all the things that we are doing to keep them safe, but I don't think people are ready yet. Even in our ambulatory sites, 30% of the volume is still done by telehealth video calls and telephone calls.

**Q. What are some of the things that you all are doing to keep patients safe?**

A. We spread out our appointments. In the waiting areas, social distancing is maintained. If the patients can, we ask them to stay outside. But, unfortunately, we don't have the patient population who come in cars. Many of them use the subway or mass transit, so we don't have the option of telling them, "You sit in your car, and we'll call you." They either wait outside the hospital, or we have a bigger waiting area in the main lobby in the hospital, and they wait there.

Only the patients getting radiology exams come up. Upon entering the hospital, patients are screened and temperature checks are performed. Everyone is required to wear a mask. If they are not wearing masks, they're given masks. We're consciously making an effort to let patients see how much cleaning we are doing while they are sitting there. The housekeeping crew is constantly cleaning the areas. We've instructed the techs that, "Even if you clean the rooms, you should clean it all over again in front of the patient, so that they see that everything is being cleaned." They feel safe being in that room.

**Q. What lasting impacts do you think the pandemic will have on patient care?**

A. One area that we didn't touch on is behavioral health. We are already seeing that the need for behavioral health is going to be significant because of the toll that this disease has taken, not only on the physical health of patients but financial health. Many people lost their jobs and many people lost their family members. The behavioral health needs are going to be significant and will last long after the pandemic.

**Q. Where are you as far as levels of COVID-19 patients in the hospital these days (October 2020)?**

A. Very low. We probably have one or two patients trickle in per week. We had about 10 inpatients left. Some of them are patients who have been here for a long time and some are coming in new, but not more than 10 or 15, at the most.

**Q. What advice would you give to other radiology groups when it comes to responding to this pandemic and continuing to provide high-quality patient care?**

A. The communication piece is huge. Communicate with your teams about the relevant policies and procedures and the importance of remaining patient-focused while you're going through this pandemic. You can never communicate enough, and that's what we learned during this. We were doing as much as we could, but we could still do better.

Another big thing is keeping your team safe. If the team feels safe, if they feel protected, then they are more willing to be more patient-focused and provide the best care for the patients. You have to look at both, not just the patient but also your team's wellness.

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