Transcript of Interview with Caroline Birks Brown by Christina Lefebvre

Interviewee: Caroline Birks Brown

Interviewer: Christina Lefebvre

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Location (Interviewer):

Abstract: In this interview conducted by Christina Lefebvre, Dr Caroline Birks Brown describes the drastic changes she saw while working in a hospital. She discusses patient care, the hospitals rapid response to converting floors to ICUs, and the way the hospital delt with staffing enough nurses to provide sufficient care to patients. She discusses how Spanish speaking doctors and nurses were asked to volunteer to work to avoid depersonalization and how other branches, like social workers, stepped up to provide the best care possible under the circumstances. Dr Caroline also touches on the possibility of young people getting covid and her thoughts on the patterns of the groups of people getting sick. She reenforces her appreciation of nurses and also discusses the politicization of the virus. The interview ends with her thoughts on what could have been done differently, politically and socially, to control the spread of the virus. As a mother, she talks about distanced learning and its effects on children and the importance of socialization. The last topic is about lessons she hopes we have learned.

Christina Lefebvre 00:00
Could you start by talking a little bit about your regular job at any ways in which your daily routine and responsibilities have changed since the COVID outbreak.

Caroline Birks Brown 00:11
So I usually work in Bulfinch Medical Group, which is an outpatient primary care clinic at Mass General. And I usually see patients in the office, six sessions a week. And then I also precept residents, seeing patients in the office, one session a week. And then I'm the Medical Director, or CO Medical Director of the practice. And that takes up about, you know, one other day a week. And so when things first started, I guess in mid March, we initially, were still seeing some patients in the office. But that quickly, basically got shut down to having them having us see almost nobody because of the fear that we were bringing patients in who had COVID sort of evolved. First, we started seeing fewer patients, and people were still kind of anxious. And then Mass General passed a mask policy where all health care, everybody working in the clinic had to wear masks. And then eventually, they passed a policy where everybody coming in also had to wear masks. And over the course of a couple of weeks, we basically went from, you know, seeing full, full schedules, which usually would be like, seven to 10 patients per half day per provider to see like almost nobody. And everybody in the clinic pretty much got disbursed to go work elsewhere. So I started working in the respiratory clinic, which was a special clinic that was set up to see patients who had any respiratory symptoms, because we didn't want to bring them into our clinic, this clinic was set up to meet infection control standards. And so I started working there, I still, we were having meetings every day over zoom. It was primarily primary care leadership for the hospital trying to figure

out how we should be responding to this pandemic. And what we should be doing with the patients what we should be doing with our employees, how we could set up our clinic best to avoid infection spreading. And so I was doing a lot of virtual meetings and then working in the respiratory clinic. And then I got redeployed to work on inpatient. Because I still rely on inpatient, and act as a hospitalist for them. They recruited anybody who still had those inpatient skills to go work on COVID floors. So then I worked in the hospital. First, I worked on a COVID rule out floor. And then I worked on a COVID floor. And those you go in and you do like four days at a time. And then in between that I would do my other jobs, either working in respiratory clinic, or we actually very quickly Mass General set up virtual cares, we never had done much, especially in BMG, we'd never done much virtual care, which is either over video or over the telephone doing visits with patients. But they quickly set up protocols for how to do this. And so we started doing a lot more virtual visits with patients, again, either over video over telephone. So and then just this coming Monday, the people who've been redeployed to inpatient are, are being redeployed back to their regular jobs, because the numbers in the hospital are down so much. And so the regular people who work doing inpatient are going to be doing that. And so people aren't going to be doing the inpatient anymore. So I'll be doing a lot more virtual care now. And we're moving into Phase One of trying to have a start seeing patients in the clinic again. And so there's all these regulations and all this thought with infection control about how we could do that while having patients be six feet apart and have everybody be wearing masks and make sure we do really good screening. So nobody comes into the clinic who potentially could have COVID.

Caroline Birks Brown 04:47
And then we've set up a separate clinic for people to be seen, who potentially do have COVID who need to be evaluated for COVID. Those are still the respiratory clinics. And then we have another clinic set up for patients who we know that had COVID and needed a follow up visit after being hospitalized or after being called sick. And so they need to be seen in a separate clinic. So we're sort of trying to keep, you know, people with different infection risks or infection protocol, histories separated. And then we're slowly trying to add back in seeing patients in person. So I think we're allowed to see about 10 to 15% of our previous volume, in person, starting for phase one, and just to sort of see how that goes and see how the flow of patients goes, and then keep doing most of our visits virtually.

Christina Lefebvre 05:43
That's amazing that you were able to restructure that quickly.

Caroline Birks Brown 05:48
I mean, it really has like, it's, you know, it's not me that has done it, the hospital as a whole has, really, I mean, it's amazing, you know, when you think about how long it takes us sometimes to get something done at Mass General, like, put in a request for epic, which is our computer system to try to, like, make a switch and epic for us to be able to, you know, do something slightly differently in our Medical record documentation. And it could be like, Oh, that'll take six to 12 months. And this was literally I mean, the hospital made, like 10 additional floors, regular floors into ICUs. In the matter of weeks. They restructured the entire, like physical layout of the hospital. And then they restructured all of our staff, they restructured what everybody was doing. And the amazing thing is everybody totally volunteered. And, you know, when they were told I mean, I think initially it was a lot of volunteer, and then people are sort of told like you're going to go here, you're going to go here, but people really just went wherever they were told to go because they knew that that was what was needed. And so you had people I mean, we had like nurses in our practice, who had done inpatient nursing for 20 years, got redeployed to go

work on an inpatient floor, or we had a nurse practitioner who, you know, has been seeing patients in clinic for 20 years as an outpatient. And she went to inpatient, just regular bedside nursing. And same thing with our medical assistants, they went to work in respiratory in the respiratory clinic. And, you know, the doctors have been redeployed to do all kinds of things. Yeah, and one of the hardest things, I think, was it, you know, we're used to being supported the physicians or are used to be supported by the nurses who do a lot of our phone calls to our patients who call it just with any concerns. And also, it helps us answer the Patient Gateway, which is the messages that our patients send us, the nurses often triage, all of that while we're seeing patients and doing stuff. And almost all of our nurses were redeployed to inpatient, because that was one of the biggest needs. Because you know, ICU nursing is either one nurse to a patient or wonders to two patients. And so they needed a ton of nurses. And so they literally pulled all the nurses from the outpatient world. And so in our clinics, the doctors were basically put in the position of we've been doing so much of the nursing. So all the triage calls all the follow up into the doctors, you know, we're a lot of spending a lot of our time calling patients and doing a lot of that nurse work. Which, you know, I think made us all appreciate our nurses so much, because they spend so much time, so much time doing that. Yeah.

Christina Lefebvre 08:45
Do you feel like the precautions in the respiratory clinics and on the COVID floors were enough to keep you and the rest of the health workers safe?

Caroline Birks Brown 08:56
Yeah, I feel like Mass General was, I don't know it's funny because I've spoken to some friends of mine who work in New York or work in their places. And it just seemed like, they described sort of chaos and feeling like out of control. I mean, I can tell you, I worked in a clinic I worked in the respiratory clinic, I worked actually in two different respiratory clinics, one, you know, one in that sort of right next to the emergency room, and then one, Charles River Plaza, like a block away from the hospital. And then I worked on a COVID floor, I worked on a COVID roulette floor. So I feel like I've gotten to see sort of the range of everywhere and everywhere. We always have enough PPE. We always had so many people there to like answer questions and help and I feel like I never felt like things were at all out of control. I never felt like overwhelmed with the amount of work that they asked us to do. They really structured it so that you know, the teams of patients taking care of the patients in the hospital. You had fewer patients than you normally did. I think to try to like decrease the stress level. Even if that meant having more doctors doing during the work, you know, it just sort of made it so that it was much calmer atmosphere and you felt like you had other people around to help you. And I feel like they were always very thoughtful about, you know, making sure that we were protected. And they actually, you know, they had a study, it has not been published yet, I just heard that they did a study at Mass General on antibody levels, you know, antibody levels are still a little bit controversial. We're not sure exactly how good the testing that we have is yet, but they did an antibody level test on medical providers in the hospital, who had worked on with COVID patients for at least four days. And they did antibody level testing, and the levels are super low. So they're actually seeing like, you know, we sort of thought, Oh, is it gonna be high, it's going to be that all these health care providers had, you know, asymptomatic disease. And, you know, we're all going to be immune, we sort of hope that it's some on some level, but then the study came out and like, the levels are super low. So it's actually showing that we're all working so differently than, you know, every other industry, everybody's working at home, and you know, everything shut down hospitals, everybody's working in the hospital, we're all wearing masks, we're all trying to be six feet apart, although it's basically impossible to be six feet apart when you're like working in patients together. But you're wearing your mask, you're doing the hand washing your doctor, and we're not seeing we're

not seeing healthcare providers getting COVID. So it sort of shows that, you know, what they've done to prevent infection, from spreading to, to the healthcare providers is really working. And it's sort of a model for what other industries as things open up can do. You know, we were in the hospital, you know, when I'm on inpatient, you know, to be honest, I'm not sitting six feet apart from the person next to me working on the computer, writing orders, doing notes, like there's just, it's not set up that way. But we wiped down our workstation, we wear our masks, we, you know, wear us kellstadt All the time, we use gowns and gloves, obviously, and mat face shields, and an ID fives when we go into COVID rooms. So, you know, they're really not seeing infection spreading to help our worker. So

Christina Lefebvre 12:26
that's really amazing. Do you do you have a memorable patient experience from the respiratory clinics or the COVID floors? That you could share?

Caroline Birks Brown 12:40
I mean, it's like I've so many, I think. So. From the in from the outpatient world, I think like the respiratory clinic, I think one of the things that was sort of striking was how many patients would come in saying that they felt short of breath, who, you know, actually, like their lungs were totally clear, their oxygenation was perfect. And they, they didn't have COVID, you know, most likely, but I think there was so much anxiety that it was really hard for people to differentiate shortness of breath from, from anxiety from true shortness of breath. And the other thing I think a lot of patients struggled with, and still struggle with is people like feel short of breath when they wear a mask. And so I would have a lot of patients who, let's say, they'd been home for like four weeks, totally practicing social distancing, super anxious about COVID, especially if they had any health risk factors. And then they'd go to the grocery store, because they decided they needed to go to the grocery store, and they put their mask on, and they go to the grocery store, and they be so short of breath. And I think it was a combination of anxiety and wearing a mask. And all these patients were coming in, you know, worried that they had COVID. So I think that, you know, that was pretty striking. I think another thing about the respiratory clinic is you sometimes would have like I had some patients that like just were fatigue, and then they would come in and their oxygenation would be low. So you know, one thing about COVID is like some patients just don't have, they don't feel the shortness of breath, and yet their oxygenation could be low. And that was something that, you know, we've worried about, that we're missing patients who need to be, you know, who maybe need to be hospitalized because their oxygen is low, and they don't really feel that. So they've actually set up all these other programs of like, home oxygen monitoring. And so you know, there's a way that patients especially if they're being discharged from the hospital, or some people who are discharged with the respiratory clinic, they'll get monitored, their oxygenation will get monitored at home because they won't feel that their oxygen is low, which obviously can be the address. And then on the inpatient side, I would say I was struck by a few things. So one, we had a huge number of homeless patients that were hospitalized. So I think that, you know, people who have fewer resources are obviously were disproportionately affected by COVID. And there was another huge study that shows that huge number of homeless patients in Boston were COVID positive and had no symptoms. And you know, they don't practice social distancing, they probably don't wear masks, they are, you know, sort of hanging out altogether. And so the spread was pretty dramatic, we had a lot of patients in the hospital who were homeless. And had another group that we had a lot of was a lot of patients coming in with COVID, from nursing facilities, who really, I mean, it sounds horrible to say that I feel like they were sort of neglected in the facilities they came from, because I think people are, we're trying to go into the patient, the rooms of patients with COVID, as little as possible. And some of these patients like don't feed themselves, and they won't drink unless somebody hands them a glass of water

and close it to their lips, because they're 90 years old. And that's kind of their baseline. And so we had a ton of patients come in with like high sodium levels, because they're totally dehydrated, just because not because of COVID, just because nobody was really tending to them. And nobody was really going in and giving them the usual care that they need just to, you know, stay hydrated and nourished. And then the other thing that was striking in the hospital that felt so different than when we're normally there is that there's a no visitor policy. So Nobody's allowed to come into the hospital. Other than the patients, except there's obviously exceptions for pediatric patients, but no one's allowed to come in. So normally, when I'm in the hospital, I spent a lot of time talking to families and their families at the bedside, and the families are helping the patients and you know, and now no one's allowed to come in. And so it's almost an eerie feeling on the floor, where it's just the patients in their rooms, and they're not allowed to come out from their rooms. That's another thing like normally the patient's like circulate a walk around. So patients are in their rooms with the doors closed, and there's no family members. And it feels so different than the normal sort of, you know, collegiate sort of, you know, lots of people around

Caroline Birks Brown 17:29
when you're when you're on the floor with the patients. And then we try to go in the rooms as little as possible, obviously, like delivering the care of the patients need. So you know, going in and like feeding them if they need to be fed are giving them water, feed water, bringing them food and examining the stuff, but a lot of the time, we would actually call into the room to check in on them and have them talk on the phone. So that we weren't using so much PPE like in and out of the room, you know, more times than we needed to in a day. So trying to think if there's a patient, a specific patient that stands out, I mean, the thing that was amazing is that, you know, you hear that the elderly get sick and people with, you know, multiple risk factors. But you would just see crazy thing is like I would had like a 90 year old woman who you know, she was in the hospital with high sodium because nobody fed or any, any water. But like she had no symptoms of COVID, she had COVID, she didn't have a cough, she's not a fever, she was like totally 90 years old, which you would expect her to be like super sick with COVID. And she was completely fine. And then I had other patients like, you know, a 36 year old who had really no risk factors and was like super sick had been in the ICU with, you know, kidney failure and everything. And of course, those are like two extremes. And just two examples that, you know, statistically are both probably rare, but just shows you that was really hard to predict who would get sick? And who would, you know, have a hard time with COVID. Right.

Christina Lefebvre 19:06
I think you talked a lot about kind of the depersonalization of patient care. And in a lot of my interviews, people have talked about that as kind of being one of the hardest parts of working during the pandemic. Would you agree with that?

Caroline Birks Brown 19:23
Yeah, I didn't find it as bad as I expected it to be. I feel like what we thought was right. I mean, that's again, where I feel like at Mass General, like we really had enough PPE. So I never felt like oh my gosh, like I don't have a gown to go with this room. And so I'm not going to go again. We did. So you would get one and 95 per day and so you would just reuse that mask and your face shield you could just wash off so you could use that for multiple days. And then every time you went in a room you would have gowns and gloves. And we never were made to feel like, don't use an extra gown don't go in the room again. And I personally always felt like I was safe. If I wore my PPE. It's not like, I felt like oh my gosh, I don't want to go in again, because I'm exposing myself because I felt confident that the PPE was, was protecting me. So I actually felt like, yes, it's different. And no, like the

patients are, you know, coming out into the hallway, and you're not going in. But I didn't feel like people were avoiding the patients at Mass General and NOC going in. Because we had enough PD, but I did, as I said, feel like patients came from elsewhere, and you could clearly see that they weren't getting, you know, the level of care that, that they normally were getting elsewhere. And then that that had like, you know, some pretty severe consequences. I also think, you know, like the nurses and like the social workers, and the case managers, like recognize that, because there's no family members, with the patients like you sort of have to deliver, you know, a lot of compassionate care, because these people are like, in their rooms, they're afraid. And they have nobody visiting them, you know, because they're not allowed to have anybody visiting them. And so I feel like people sort of took that into account, and tried to make sure that they were, you know, there for the patients. And communicating with that. There's also like, amazing, you know, Mass General got a huge influx of Spanish speaking patients from Chelsea, and they have these you know, it's always so much better to speak to patient, person to person than even through like an interpreter or through like, we actually had iPads with interpreters, which is good, but having somebody like in person is obviously battered. So they had this whole group of Spanish speaking physicians, who would basically just go in with you to the room and translate for you. So there was another person there, because we felt like a lot was being missed with the interpreters. And so they had, like, in person, Spanish speakers, translating for those patients, because there was so many of them, which was just like, amazing to see that, you know, again, that's something that they like just, you know, sprung up all of a sudden, and ask people to volunteer to work for, to try to take away some of that depersonalization and to try to make up for some of the language barrier.

Christina Lefebvre 22:38
Right. So that's awesome. You talked about the idea that younger, more healthy people will get COVID Would you say that that is one of the more common misconceptions that you hear about COVID?

Caroline Birks Brown 22:56
I mean, I think they will get COVID. But they just won't get sick with COVID. Right. So like, we think that, I mean, I think that it's probably true. So again, we haven't had great, you know, it took a really long time. So when I worked in the respiratory clinic, like every day I worked there, there would be like a different protocol for who qualified for testing. And that was all just based on like, how much testing we could do, right. So at first, it was only if you had high risk criteria, and had symptoms, and then it got to be if you had high risk criteria, and like, you could even have no symptoms at eventually, like now anybody can get tested, like you got, you know, you could go in and say, you know, I was exposed to somebody I want to be tested and tested. And so I think that, you know, we don't know exactly the prevalence of who got COVID. But I think that there's a lot of younger people who probably did get it, who didn't have a lot of symptoms, and so weren't, didn't qualify for testing. So, you know, we can all think of the rare cases like I can think of the 90 year old who didn't get sick, I can think of the 36 year old who did get sick. But I think in general, it is true that, you know, people who are older, you know, obesity was actually found to be a pretty significant risk factor, immune suppression, prior lung disease, like I do think all these things do make it more likely that you'll get sick. But there are exceptions. And we don't totally understand, like why certain people are more likely to get sick than other people. You know, I think there's definitely a pattern that people with, you know, medical conditions and immune suppression and older age are more likely to get sick, but then, you know, I think that's why everybody's so scared of this disease is that, you know, you could be like a totally healthy person and get sick from it.

Christina Lefebvre 24:53

So great. And then I think you've talked a little bit about the strength incentive committee. unity within the hospital and among health workers. Do you feel like that is translated to our overall society? Or do you think that COVID has done more to divide us?

Caroline Birks Brown 25:13
Ah, I think it's so hard to know. I mean, I think that everything in our country right now is somehow politically divided. So, you know, I think that that's hard. I think our president, you know, I don't have good, good opinions of, and I think that he's created a lot of division over this, and a lot of politicization of it. But I think that I mean, I think we all sort of have like, shared experience a little bit. And so I think that's probably like something that brings our society together. On some level, I think that there's an appreciation for first responders, which again, I think sort of brings people together over sort of a common good. I worry a little bit that people are getting tired of, you know, the social distancing and all the rules, and that, as things relax a little, there's a lot of judgment between people, you know, like, why are you doing this? Why are you doing that? You know, I see that even among, like, my kids, friends and things like that, you know, like, this one's This one's doing that these people are getting together, why are they doing that? So I think that has a potential to create, you know, a lot of finger pointing and you negative energy among people. And I think, you know, it's partly people trying to do the right thing, and it's partly people, just judging others, some people are comfortable, like, I do think it's okay, now, for example, for you to get together with like six friends outside and do something six feet apart. But there's lots of people who are getting together with 20, people with no masks and right, like, that's higher, high risk, and we don't really want people doing that. But then there's some people who like, don't want anybody to get together and be six feet apart. And I think that's creating a lot of negative energy and between, between people. And I think that's just gonna get worse as things relax, and people have different levels of comfort with what is and isn't. Okay, I think it's going to create, you know, a lot of sort of tension among, in small communities. Definitely.

Christina Lefebvre 27:46
Are there any things that you feel could have been done differently? Not just politically, but in society to prepare for and respond to COVID?

Caroline Birks Brown 28:01
I mean, it's so hard. I feel like we have never had anything like this in our lifetime, right. And so, and we're in a society where we're so used to doing whatever we want, right? Like, we are not, we're, you know, we're totally free society, we're not used to having rules that the government tells us that like, you can't go here, and you can't do that. And so I think that this has been, like a huge adjustment for us. And you know, it's easy to look back and say, like, oh, we could have responded sooner, we could have done this, we could have done that. You know, I don't go that, that that's very useful. I do feel like our children have been sacrificed to a huge extent, in this whole thing. And I feel like in a lot of ways, they're the, you know, sort of like lowest risk population, and they've had some of the biggest sacrifices, I think, distance learning is, is not a good thing for our kids. I think that children like require socialization, I think teenagers need to have some peer interactions and need to also have a little bit of separation from home at, you know, during this developmental stages. And I think that was so easy for, you know, all schools to be shut down without a thought of, is there a way we can do some of this and allow our children to have, you know, some small semblance of normalcy? And do I hope that as things, you know, open up a little bit that our children are a priority because they are the lowest risk, you know, people in all of this and I think we need to have Have them getting educated, getting socialized, having some sense of normalcy. And also seeing that they can interact in the world in a way that is, you know, hopefully low risk, and still maintaining

connections. I mean, I went for a walk in the woods near our house. And I came upon a dad with his three little girls and three little girls, when it's like, Oh, my God, like, what are these people growing up with? Thinking is, you know, like, a normal, a normal fear. And I feel like, you know, it's going to be hard, because kids are used to kind of being all over each other. And, you know, and so, you know, how do we get it to be that they can be together in a safe way. But I think that that's going to be a huge part of the next phase. And I really hope that,

Caroline Birks Brown 31:01
you know, having our kids getting back to being together is, is going to be a big priority. Right. And I just think it's also been amazing to see like, people's different levels of comfort, right, like people who, I mean, I think it's kind of, you know, I'm used to, like maybe political ideas, separating people, like if you're like a Democrat, and you're, you're there's friends of your senator Republican, like, sometimes it's hard to have those conversations, and you kind of know that over time, but like, people's level of comfort with how much social distancing they need to do, I feel like has not been predictable, like I, you know, I will say things because I feel like I'm probably a little bit more liberal than other people, like, I do feel like we should wear a mask, but I do feel like socialization is important. And so I think I'm, I'm sooner to warm up to the idea of like being outside six feet apart and hanging out. And I feel like, I tried to get my son who's 13. And I feel like he's had kind of a hard time, like, not being with his friends for this huge amount of time, and usually loves school, and, like, he's really not liking school. And he's usually super organized. And I feel like he's totally not organized. It's almost like, not having all the social cues. And all the fun part of school has totally, like, taken the wind out of his sails. And I've tried to reach out to some of his friends to be like, Oh, could we like go for a hike? Or could they just come and hang out in our backyard and like talks with the departments, you know, a bunch of them are just totally not comfortable with that. And so it's, it's really been funny to see the, you know, different response from different people that you would maybe not expect. And some of them I understand they, you know, live with a grandparent or but other people, I'm like, wait, but you're totally healthy. Your kids are totally healthy. Like, what are you? Are you going to hide forever. And then even hearing people talk about, like a school opened, you're like, Well, I'm not gonna send my kid to school at like, really like, why? Like, you have to be able to, you know, I'm not gonna send my kid to school until there's a vaccine really like that just seems. So such an overreaction. And not based on any real knowledge. And I feel like, there's a lot of that there's a lot of emotional reactions to things. And that's also emotional. Those emotional reactions create a lot of judgment towards people who maybe are behaving differently, even if they're behaving within, you know, the rules of what is expected at a given time. So, yeah, and it's something you're not used to, like, we're not used to policing each other, right. And it's not really our job to police each other. And yet, like our this is something that is totally about social interactions, right. And so it is sort of our shared responsibility to try to, you know, make sure people are being safe. But then again, like some people's version of CIF is such an extreme, and other people like have no who are just like, whatever, I don't care, you know. And then I think the other thing that's going to end up coming up is, you know, once we do have antibody testing, I think it's going to kind of be the haves and have nots, right? So like if you have the antibody, like, why can't you come and hang out with somebody who doesn't, because you can't get it, you can't give it to them. And so I feel like that's going to create a whole other level of confusion, probably about, you know, what isn't isn't safe. And who can do what? And it may not be the people know that right? It'll be like, you know, you certainly know that this group of people already had COVID. And so it's probably okay for them to all be in the car together. Right. And so it's going to create another level of judgment that is maybe based on a lack of understanding. So definitely, and I've already heard people doing that. I've already heard people who are like, you know, well, my family all had COVID And so I'm letting my daughter's your boyfriend's family because they haven't just but she's, you know, she can't give it to them and they can't give it her so it's fine. Which, you know,

on a, from what we know, right now that probably is true. And so, you know, I do think again, like having some balance is going to be important for all of everybody's mental health and live restarting?

Christina Lefebvre 35:20
Yes. Are there any lessons that you feel like you'll take away as a doctor from working during the pandemic?

Caroline Birks Brown 35:31
I mean, I think the most amazing thing to me has been, like, how quickly and how, I mean, just how, how quickly, everything can change, and how if we all come together, we can like make anything happen in like, such a fraction of the time that you would normally expect anything to happen. And that has just been so inspiring. I also think, you know, medicine, I feel like when I went to medical school and medicine was so much about just like pathophysiology and disease. And just in the last 10 years, I feel like so much of what we talk about in medicine is about social determinants of health. And, you know, that means, you know, access to food and access to medications and poverty and, you know, race differences. And I think that the response to this pandemic has just shown because of who has been disproportionately affected, and how the healthcare system has reacted, just has shown so much how medicine and social determinants of health are so interrelated, and we can't address one without addressing the other. And you wouldn't, you know, when I went to medical school, we didn't really talk about how that was, you know, part of your job was to, like, figure out if your patient had food, I mean, of course, like, you knew that on some level, but it wasn't really overtly disgust, right. Like, you can't manage somebody's diabetes without understanding, like, what they're eating. But this is just shown to me, like how interrelated, all those social determinants of health are with medical care, and how we can never take care of a patient without really seeing how linked they are. And then seeing that part of our responsibility as a medical response is not just about, like the disease, but about all the other things. So, you know, like, Boston hope, the hotel that they set up for patients to go to, so that they wouldn't be living in close proximity with family members. You know, after having COVID, you know, like, we've, we've never done stuff like that, you know, on such a large level of really sort of looking at all those other aspects and just rolling it out so quickly, it was just, I mean, to me, it was like, just inspiring to see, you know, what could be done if you put all of our resources and all of our time into something so quickly, you know, as I said before, I'm used to things taking forever to, you know, enact a change, or to start up a program or to get an idea off the ground. And this was just like, you know, in a week, new clinic built in, you know, in a couple of weeks, like, place for people to go to hotels for patients to go to so that they weren't like, infecting their, like family members at home. I think it was amazing to see really, yeah, that's give me some, some hope, some hope for, you know, I feel like we're living in a country that's so divided and that it feels like you know, like, nothing can get done in the government because, you know, the the Democrats and Republicans totally blocking everything that everybody's done. And then you actually see like something happened in our world. And like things happen so quickly and people work together. I mean, I think that was just just such a nice thing to see come out of this horrible situation.