Masters of Scale: Rapid Response Transcript – Dr. Bon Ku

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BOB SAFIAN: That's Dr. Bon Ku, an emergency physician in Philadelphia. Bon joined us for an episode several months ago at a time when his emergency room was overrun by Covid-19 cases.

That episode has been among our most-listened to, bringing to life the frontline realities of treating pandemic patients. I'm Bob Safian, former editor of *Fast Company*, founder of the Flux Group, and host of Masters of Scale: Rapid Response.

I wanted to check back in with Bon because, while virus treatments have definitely improved, the volume of Covid-19 cases is rising. Bon's determination to help is as strong as ever, as is his creativity in approaching the challenges.

At the same time, his stress and concerns for the future are troubling, all of which puts Bon squarely in the crosshairs, again.

[THEME MUSIC]

SAFIAN: I'm Bob Safian, and I'm here with Dr. Bon Ku, an emergency room physician at Jefferson University Hospital in Philadelphia, and professor of emergency medicine and assistant dean at the medical school there. He's also director of the Health Design Lab and host of the podcast, Design Lab. Bon, thanks for joining us.

KU: Thanks for having me back again, appreciate it.

SAFIAN: Yeah, you were our guest back in the spring when Covid-19 was ravaging the East Coast. The dead overflowed the hospital morgue, there were mobile units outside that were brought in to handle the load, there was limited PPE for medical staff, students were told to stay home from the hospital. Can you take us through the phases of what's happened since then? Things subsided for a while, but the patterns have now shifted in a more worrisome way.

KU: There was a lot of fear and anxiety in the springtime. It was a really dark time for me. I was living in a hotel for a few days because I had worked a string of shifts. At that time, we weren't clear on the exact transmission of how healthcare workers were getting sick. Now we know it's mainly aerosolized and I'm back in my home, which is great, and with my family.

We saw a reprieve during the summer – especially in Philadelphia where I work – and businesses started to open up, there were signs of life happening again. But what was very concerning is what we experienced in Philadelphia and what my colleagues experienced in New York City were being replayed across the country. It was like watching a nightmare being replayed over and over again in Florida, in Houston, in Arizona. I was thinking, "This is exactly what we were experiencing months ago. Why weren't these places prepared?"

SAFIAN: I remember back in the spring you talked about how you didn't have enough information about the virus and you would get that by calling doctors in New York and checking things on Twitter.

KU: The information has gotten a lot better. We are so much more prepared now. For example, we're seeing a lot of Covid cases again – we're right now experiencing uptick in transmission – but there's been not as many deaths. Doctors, we have become a lot better at managing sick patients with Covid-19. There has been this transmission of knowledge from the places that have experienced Covid in the early phases like the East Coast in New York City. That has gotten across to other physicians, other healthcare systems. But overall, what hasn't gotten across is being prepared. Why has Covid ravaged so many other healthcare systems in the country? We knew this was bad, but why was a nightmare scenario that we experienced on the East Coast being replayed over and over again, across our entire country?

SAFIAN: Have you heard from other doctors in other places around the country maybe why that's happening?

KU: Well, I spoke with a resident in Arizona and he was saying, "All we're seeing now in the emergency room is Covid." This was during the summer. "Our ICU is almost near

capacity," and I'm thinking, "This is exactly what New York City was experiencing, only months later."

SAFIAN: Can you set for me where things stand right now?

KU: I think we're sleepwalking into the winter. We have more knowledge of how to treat sick patients with Covid. We're recognizing this earlier, there's more testing being done. But at the same time, what I've been experiencing in Philadelphia is that we're averaging over 2,000 cases per day now. That's the highest it's ever been, even higher during the spring. Many doctors across the country and nurses still don't have enough PPE. To me that is mind-boggling.

I still know doctors who are using their respirators day after day after day. Fortunately, at my hospital there's been some great leadership and we've been prepared, so we have enough PPE. I have not gotten sick with Covid, and I have not been infected, but there are many frontline healthcare workers across the country who have gotten sick because of lack of PPE.

SAFIAN: I talked to a doctor who's a friend here in New York, who's not in the emergency room, not necessarily dealing with Covid patients in a frontline way and yet still he said, "Yeah, about a third of the folks in our office have gotten it at some point." Do you see that in Philadelphia also?

KU: Yes. It's a little ironic because I work in the place that's probably the most dangerous, in the emergency room in a city where we take care of many Covid patients just like my ICU colleagues. But in the outpatient setting, I'm hearing all these stories just like that, Bob, of, it's a nurse, or it's a physician, or an administrator who gets infected. It's this mindset of not wearing masks all the time, not wearing protective gear all the time. I think we've become a little bit complacent. We've become used to this virus being widespread in our communities. We don't have this mindset of, "We're going to hunt down this virus and contain it." We've kind of given up. I feel we're sleepwalking into the winter. I'm pessimistic of what's going to happen. It's scary to me.

SAFIAN: When we talked in the spring you talked about how when you'd go home you'd strip outside before you went into your family. Are you still doing that? Do you know what things we really should be doing and what things are not necessary?

KU: I am not as concerned about the virus being on my clothes as much as I was in the beginning. I'm still changing out of my scrubs and going home and taking a hot shower still, that's the first thing I do after a shift. I'm still taking those precautionary measures. My parents live in South Korea. You know, America and South Korea had the first Covid case on the same exact day. Korea had less than 500 deaths from Covid, we have had over 225,000 deaths. Korea is a big country, it's almost 55 million people, but because

the South Korean government took this virus seriously, they hunted it down, they had this memory of MERS and that outbreak that they took preparedness seriously.

SAFIAN: Well, we're still trying to figure out, and it's sort of piecemeal in different places in different ways. In terms of the emergency room that you work in, that you operate, has it been designed differently? Is it operating differently now than it did in the spring?

KU: We've been a lot more vigilant. We've been very concerned about protecting our staff, so we have many protocols in place for how you should wear PPE, when you should wear it. We've had to socially distance our patients in waiting areas. Any urban emergency room is super busy and we're used to patients overflowing into corridors and hallways. Because I work in a large academic center, we take patients from all over the Philadelphia area. Some of the sickest patients come to us. Because of that, we have very high volumes. What now we're experiencing is actually harder than what we were experiencing this spring because our volumes were down 50%. Now our volumes are picked back up, and throw some Covid cases in there, and it makes for a really difficult situation.

SAFIAN: Yeah. We talked about in the spring how you had a lot of Covid cases, but everybody else stopped coming and like, "What happened to those cases?" Now you have both together.

KU: Both together, and it's very hard to separate out who has Covid and who doesn't have Covid. Any patient who gets admitted to the hospital gets a Covid test because we just want to know, make sure that patient doesn't infect any other patients, and even if you're not there for Covid-related symptoms, it's surprising how many times someone tests positive for Covid, who doesn't even have any symptoms for Covid. We're seeing this community spread.

Also I'm hearing these stories of such emotional trauma. I told a patient just this week that she had Covid, and what happened when I told her was that she just started sobbing uncontrollably, because she was afraid. She told me that her sister died of Covid in June, and in her household there were two grandchildren and her daughter who's pregnant, and she feared for them that they most likely have Covid because they're all living just in close environments.

SAFIAN: When you have to have a conversation like that, can you say, "Well, it was different in June than it is now," and try to make them calmer or is that not appropriate or fair either?

KU: I definitely feel more confident in telling patients that based upon their blood work, based upon their chest x-ray, based upon their oxygen saturation, that they're most likely going to recover. I feel a lot more confident in telling patients that. In the beginning I didn't because we didn't know the pathophysiology of this disease and what's going to happen to patients. What's also hard now that we're still seeing very young patients get

admitted to the hospital. There was a 23-year-old male who got admitted with Covid because he had low oxygen saturation. The youngest patient I diagnosed with Covid was two months old, a two-month-old baby. It's hard to see this virus widespread in our community, and after almost a year of trying to contain this virus that we're not able to do that.

SAFIAN: In the beginning you couldn't necessarily, or weren't necessarily able, to test everyone, and the testing took longer. What is the status of the way that works now in the hospital?

KU: There was a lot of confusion about testing in the beginning. There was confusion from what the CDC said versus local hospitals. We are a lot more liberal with testing now, which I think it should be. What we've also done, my group, we are working with the city of Philadelphia and setting up pop-up Covid testing sites directly in communities, in primarily Black and Brown communities in Philadelphia. Because there's actually these testing deserts where people do not have access to free testing. It's important, if we're going to hunt down this virus, that we need to know who has the virus, and we need to give everyone – regardless of their ability to pay – access to free testing. We are literally setting up outdoor testing sites in church parking lots and school parking lots.

SAFIAN: I mean, there was a point where your design lab, you were 3D printing swabs because you didn't have enough of those for testing. At this point, it's not a question of not having access to tests, or that the tests take too long, but just getting them to the right places?

KU: Getting them to the right people. What we know during this pandemic is, those people who already had the worst health outcomes, the most vulnerable groups, Covid has just exploited that. People in vulnerable communities, primarily Black and Brown communities, in our country have been dying at disproportionate rates. How do we make sure people in those communities have testing? How do we bring testing to them? There's been some remarkable efforts of people throughout the country doing that, bringing testing into those communities.

SAFIAN: There's been a lot of talk, particularly after president Trump's hospital visit, about the promise of new therapeutics and how they work. What have you seen about therapeutics?

KU: There are options now with steroids and Remdesivir of what we can do to treat patients. But we've always been good at taking care of very sick patients with respiratory illnesses, especially at tertiary academic medical centers. When I think about some of the mistakes that were made at the beginning of the pandemic, why did people with Covid die in hospitals?

It's because some hospitals were overwhelmed, especially the hospitals in Queens, New York were just overwhelmed with cases, while other hospitals didn't have that many

cases. It was sometimes a simple matter of staffing and space. What we need to do thinking about this winter is how do we load-balance: If a hospital is overwhelmed with Covid cases, how do we divert those Covid cases to a hospital that has capacity? The simple act of load-balancing was not possible or did not happen in the early part of the pandemic.

SAFIAN: Is that what your big worry is for the winter, that some hospitals are going to get overwhelmed again?

KU: Absolutely. There's a group that I'm working with, it's called EMATT, Emergency Medicine All Threats group. It's this grassroots collaboration with New York City emergency rooms. We're working with IDEO, it's a large design consultancy, and the McChrystal Group, which is a consulting group led by Stanley McChrystal. We're thinking about how can we load-balance this winter? Because right now we think healthcare is coordinated, but it's not really. The business model of healthcare is that hospitals compete against each other for patients. Hospitals compete with each other to do elective procedures, which is how many hospitals make most of their money.

How do we get out of that mindset of competing against each other and thinking about coordinating our response for load-balancing. If one hospital gets overwhelmed, that you could transfer these sick Covid patients to another hospital that may not even be in your network. Hospitals will lose money by taking care of sick Covid patients. Unlike what President Trump has said, thinking that doctors are making money from Covid, we are not. Hospitals across the country are losing almost a billion dollars a day during this pandemic.

SAFIAN: Because as you described this it seemed so obvious that you should take patients from hospitals that are crowded and move them to hospitals that are less crowded. How did this effort that you're describing get started and what are you doing right now?

KU: It's a very grassroots effort that was spearheaded by some New York City emergency room leaders. They saw that, "We do not want to experience the amount of deaths that we saw during the springtime, and we need to do something about it." It was very organic in that way. Anyone who works in the emergency room saw the mistakes. For example, there was that field hospital, the Billie Jean King National Tennis Center in Queens that was funded, I think by, it was like $50 million. They saw 79 patients during the pandemic. Why is that? Because there was not a system set up to transfer patients from hospitals to that field hospital.

SAFIAN: What's the design lab up to?

KU: Well, we had repurposed our 3D printers to 3D print 35,000 swabs for Covid testing, so that was a big effort. Because we anticipate that there may be supply chain

shortages. With our lab we run a program for our medical school where we have 30 new medical students in our program, and they're thinking about how to apply design to healthcare.

Our challenge for them this year is, how do we think about redesigning healthcare delivery during a pandemic? We're excited to see what creative ideas are going to come out of these first-year medical students. Because there is no way we can go back to our old way of doing business in healthcare. If that happens, people will die, patients will die. We have to get really creative, everything from financing, to meeting supply chain disruptions, to thinking about virtual care so patients won't die during this winter time.

[AD BREAK]

SAFIAN: You mentioned virtual visits. I'm curious how the telemedicine adoption is adjusting the way medical care is being given, and even the way emergency medicine maybe is being administered.

KU: Yeah, some systems have seen a thousandfold increase in telehealth visits. What this pandemic has done is made telehealth normal. It normalized virtual care. I think after this pandemic, hopefully the “tele” will drop from telehealth. We would just think of it as healthcare. There are many things that we can do to help patients without having them come to a brick and mortar facility, a clinic or a hospital.

SAFIAN: Are people doing emergency visits remotely?

KU: Even before the pandemic, we found it more efficient to do the initial triage process, when you come into the emergency room, that that be a virtual experience. Instead of seeing a real-life person, you actually go into a room and you talk with a doctor or a nurse through a monitor. That doctor or nurse is not even in the same emergency room. But what that doctor or nurse can do is figure out why that patient is there and order some initial blood work or tests. While that patient is waiting to see a real doctor, those things will get done. One doctor doing that virtual care can actually cover multiple hospitals, so there's a lot of efficiencies there. That's turned out really well for the pandemic because one, you eliminate another touchpoint of a healthcare worker potentially getting infected, and it actually speeds up your experience in the emergency department, and I think makes it better.

SAFIAN: Do you see habits of health professionals changing or are we sliding back to our normal ways of doing things?

KU: I think there is a sense of complacency, and not in a way that is we're apathetic, but we've just become so used to wearing PPE, of taking care of patients with Covid, that it just becomes this new normal of existing. It's almost that we can't imagine anything

different. That's why I like to think about, "What is that experience that other countries are having?" We have a quarter of Covid deaths on the planet, so it's so normalized for us Covid every day we are treating a patient with Covid, we're seeing repercussions from COVID. But it doesn't have to be this way. Again, I bring where my parents live in South Korea, where I'm from, that they had less than 500 deaths from Covid and we could get there, that is possible. But we've become just so used to just being on the defensive and reactionary.

What we need to do is plan on preparedness. We need to plan for next year, we need to plan for 2022, of how we can redesign our system for preparedness. Because right now that's not paid for. But what our group is working on, the New York City group, is, the analogy that we make is when architects and builders build a building, they design that building for code, for fire code, and that's expensive to do. But they do that because they know in the long-term it saves money. Because if you do not have a building designed to meet fire codes, a simple fire can destroy the entire building, and it's worth the investment.

We need to have that mindset in healthcare. We need to pay for preparedness. We need to design our system to prepare for pandemics like this, because if we don't, we're going to get devastated, and that's what we're currently experiencing right now.

SAFIAN: You're frustrated that we haven't learned more.

KU: I'm unbelievably frustrated. These deaths that I see, these patients who are infected, is a direct result of us not implementing the policies needed to hunt down this virus, to contain it, to protect our healthcare workers, to protect our citizens.

SAFIAN: The way you see it, it's not complicated. It's not hard to do. It just takes focus, discipline.

KU: It's not hard to do. I mean, it's mask-wearing, testing, contact tracing. These simple measures we have not been able to do. Dr. Fauci wants a mass mask mandate for our country, we should have that. We don't actually need to lock down the country if we did those things. If we did contact tracing, mask-wearing, widespread testing, quarantine. Countries were able, with these simple measures, to contain the virus without severe lockdowns.

SAFIAN: Yeah. I mean, we're seeing lockdowns grow now in Europe.

KU: Yeah, France and Germany just had their bars and restaurants closed, and they're imposing more lockdown measures over there. I think there's a sense of complacency among the government, among our leaders, among our citizens. We all need to work together. We're in this together. We need to partner together for public health. This novel

RNA virus does not give a crap about our business model of healthcare. It needs our cells in order to replicate. We know what those measures are to contain this virus, we are not doing it. We are the host and it does not get tired, it does not fatigue. We need to take on this mindset of not being reactionary, of not sleepwalking, and being vigilant.

SAFIAN: You've also had to worry about demonstrations and riots in the streets in Philadelphia.

KU: Oh my gosh, it reminds me of the summer. I get these alerts of, "There's curfew. There's a lockdown in Center City. I'm concerned about, How am I going to even get into my shift? Am I going to be able to... I need to leave earlier.'" Again, there's this racial pandemic and the viral pandemic occurring at the same exact time. It's a lot. People are afraid and we have just so much going on. It's a tough time.

SAFIAN: Do you get tired, Bon? I mean, you have been carrying and exposed to a lot of stress for a lot of months now.

KU: I get exhausted. I think there's a lot of emotional trauma that many of us are dealing with in healthcare. It was harder in the springtime when I found that my chief resident during training, Dr. Lorna Breen, who was a medical director at an emergency room in New York City, had died by suicide. She had gotten infected with Covid, she died, and that just devastated our community.

I think there are many of us working in healthcare who have been experiencing this trauma from this virus, and I'm concerned about our mental health. We need to destigmatize mental health issues, and doctors, we don't like to talk about it. We like to pretend that we got everything together. I hope that healthcare workers are being open with what they are experiencing, because there is a huge mental toil from this virus. I get concerned about trainees, about students, nurses, and doctors as we head into this wintertime and we're seeing more cases of what that long-term emotional trauma is going to be.

SAFIAN: With your colleagues and your students, what do you do?

KU: We try to check in on each other. I try to be open and candid about what I'm experiencing. And I'm open that I have a therapist, I get help, I talk about these things, I try to destigmatize mental health issues. It's important for me as a leader to say that. It's a little bit vulnerable for me to say it, I don't like to say it. But I think as a leader then maybe people younger than me will go, "Well, he's getting help. Maybe I should consider getting help," and it's not a bad thing. We are all experiencing so much trauma and grief right now, we need to talk about it. We need to recognize when our colleagues might not be doing well and give them that opening to be able to talk to it, to recognize it.

SAFIAN: Yeah. To give ourselves the space. It is a very complicated time because the external pressures are real.

> **KU:** Yeah. It helps me working in a team, and inspires me that this is a group of nurses, and doctors, and techs, and administrators that I work with. We're in this together. The Emergency Medicine All Threats Team in New York City, it's a grassroots movement of leaders coming together through video conferencing and preparing for the next wave. That inspires me. We're not getting paid to do that, but we have come together, and we want to work together as a team, and to tap into all of our networks and think about how we can better prepare our systems, how we can protect our patients during this time. There are a lot of heroic efforts being done during this pandemic. There's so much creativity in coming up with real-time solutions. We have a great healthcare system. We have so many great physicians. We can contain this virus, stop it's spread.

SAFIAN: There's a lot of talk about people going back to offices and whether that's a good idea or not a good idea. From your point of view, is that a good thing? Is it okay for people to be going back to offices if we're wearing masks or should we be staying at home?

> **KU:** It really depends upon the positive test rates for Covid in the community. There's some communities, absolutely not. If you have more than a 5% positivity rate, that's kind of a benchmark where you should try to lock things down. I think a question for businesses to ask is, "Why do we have to meet in-person? Why can't this be done virtually?" The mindset should be, "Let's do it virtually unless we absolutely need a physical meeting." We need to be more vigilant than we currently are. There's kind of a laissez faire attitude that I see among a lot of businesses, just not taking it seriously. But things aren't going to go back to normal anytime soon.

SAFIAN: Yeah, I think people are hoping that the vaccine's going to kick in, testing's going to kick in, whatever, and we're just going to be able to snap back. These outbreaks will keep coming, rotating through different parts of our community.

> **KU:** It's frustrating because a vaccine is not the solution. I mean, we have the tools right now to contain this virus – right now. If we started implementing it, if we took them seriously, if the government took them seriously, and the citizens took it seriously, we could contain this virus, because that's been done in many other countries without a vaccine.

SAFIAN: You've got two kids at home, 15 and 12, they're in hybrid school situations, in class and online. How do you approach the decision of whether to send your kids back to the classroom?

> **KU:** Yeah, I think if you have trust in the local leadership there that they're following the state level guidelines, which are usually pretty conservative, probably a positivity rate

less than 5 percent would be one benchmark of the people getting tested. As opposed to like South Dakota and some of the Indian reservations, it's like 40 percent. It's terrible there. I think if you trust your school system for implementing good measures. So we live in a really great school system, the public schools are really great here. People are, I think, really on top of it. It's a very local decision, a mixture of what that leadership in the school system looks like and also, as a parent, your risk tolerance for your kids.

As a parent then you have to make that an individual decision. I personally made the decision, my kids play club sports, field hockey and lacrosse. My daughter may play lacrosse for college, and she will get kicked off the team if she doesn't participate in that sport. The girls have been really close to each other and it really bothers me a lot.

SAFIAN: So with all this stuff that you're doing at the same time you decided to start your own podcast.

KU: Well, one of the inspirations was first being interviewed by you in the spring on this podcast. During this time when we have not been able to travel and see people in person, I've been doing a lot of phone calls, a lot of Zoom, like other people, and just learning so much. I felt it was important to disseminate good knowledge. I learned so much by talking to people and it was just this... I don't know, maybe it's a creative pandemic hobby. It gives me a way to connect with people from designers, and doctors, and architects that I love their work, to connect with them for an hour and learn from them. It provides a nice framework to be able to do that.

SAFIAN: Well, I can certainly relate to that, Bon because I certainly enjoy it. I enjoy being able to spend time talking and learning from you and from folks like you, so thanks again for making time for us.

KU: Yeah, thank you. Some people learned to make sourdough bread during the pandemic, for me it was podcasting.