Mike Milken: Rod, it's great to talk to you always, but today this is extremely important.

Rod Hochman: Great to be with you, Mike.

I'd like you to review the size and scope of your system at Providence and the number of caregivers you have. In many ways, we're now seeing these caregivers as first responders. Give us a feeling for the scope of Providence.

We're the third-largest health system in the United States. We are in the seven Western States extending from Alaska to West Texas. We have 51 hospitals, 120,000 caregivers, and over a thousand clinics and ambulatory centers across that geography. In addition, we have our own long-term care division, and we have our own health plan predominantly in the Northwest.

What we've done is really organized ourselves as a system early on, two months ago. So basically we have an update on supplies and every clinic and every hospital across our seven states. We also have been looking at our hotspotting to see where our patients

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are. We knew where every ventilator was in every one of our States at least a month ago. So we could plan efficiently on how to do that.

We've organized ourselves with the system headquarters up here in Seattle, but with all the presidents of all of our States that are covering their clinics and hospitals in Providence. And then also the local people – the executives at the local hospital level, our clinicians – get together on a daily basis to compare notes on what's working, what's not working, what's the status of their supplies, what's the status of their caregivers.

We've really handled it as a military operation across our seven states, across our system.

So Rod, I think you cared for the very first coronavirus patient back on January 20th if I remember.

Yeah, January. Yeah, just around January 21st or something.

What is the experience in your hospitals around the country as it relates to coronavirus patients? And what was your experience and learning curve on that very first patient?

So, what happened was a patient who had traveled to Wuhan, China recognized that they may be sick. The great thing that the patient did was they called our hospital, north of Seattle in Everett Washington ahead of time to alert them that they had traveled and that they might be sick.

As soon as that patient hit the doors of our emergency room, our people were gowned and gloved, ready to go, and put that patient into isolation immediately and got onto a protocol, got testing done. And we immediately found out that we had the first case of COVID-19 in the United States.

But what was the real testimony to the folks that were there – they did everything right, right from the beginning. What was interesting about what we saw clinically – and this was reported in the New England Journal of Medicine – initially the patient seemed to do better and then really de-compensated, and we were able to save this patient using Remdesivir from Gilead and turn the patient around and get this patient home. He's doing quite well.

But this case put us on high alert. So we immediately instituted protocols and safety across all of our hospitals and clinics to deal with what we saw coming. This was not
going to be an isolated case. This was going to be something that was going to spread and we really got ourselves ready early.

When we hear people are going on a ventilator, what does that mean, Rod?

One of the aspects of COVID-19 that’s the most critical is pulmonary decompensation. What happens is certain patients will present with a lot of shortness of breath, and they’re not getting enough oxygen from their lungs into the rest of their body. And those are the times mechanical ventilation, when you hear about ventilators, what we do is really help the patient breathe on their own. And one of the most important things about the ventilation is that the pressure exerted inside the lungs keeps the airways open and keeps the oxygen exchange going at a time when the virus is compromising the ability of those cells in the lungs to be able to do that.

What we learned from our colleagues in China is when someone was decompensating and getting more short of breath was to make sure they get intubated on a ventilator earlier and not wait until they’re collapsing or critical.

So Rod, when people hear “intubated” or “in a coma,” why are they in a coma? Why does that occur?

Some of our listeners may have been, you know, operated on or in an ICU or may have been sick with other things. Once someone is intubated, what we want to do is relax them. It can be fairly traumatic mentally. So we make sure that they’re on medication that keeps them relaxed. Oftentimes they can’t even remember the event. But it also just puts them in what I would say is in certain times a semi-comatose state so they’re not having the discomfort that can occur when you’re on mechanical ventilation.

Now we are hearing anecdotally, and there are clinical trials going on, good results in many cases on the Gilead drug you referred to. After the first patient, have you given that drug to others?

We have the largest ongoing group of patients that are on the trial for Remdesivir, and we’re giving it to patients across our seven states who are generally the ones in a more critical condition, and trying and in certain cases to prevent them from having to go on a ventilator. I would say anecdotally – and again, and this is going to take more study –
we've seen some pretty dramatic results with being able to rescue some of the critically ill patients.

As you see hospitals around the country gearing up for a potential substantial increase or surge in patients. What has been your experience as you look at these 51 hospitals in your system?

What we're seeing with this virus is that while we talk about hotspots around the world [and] hotspots in the United States, even in our local regions we're seeing cases that disproportionately might affect one of our hospitals more than another. So even in locales, we're seeing certain areas that generally tend to have more cases.

What we've done is tried to prep and get everyone ready. So we shut down elective cases a long time ago so that everyone would be ready to go and we weren't doing it on the fly. But also what that did was it helped us protect some of our PPE (personal protective equipment), you know, the protective equipment so wasn't being used to do routine surgery, but it was going to be there for the patients that needed it.

We also looked at which floors and which units would be ones in which we took care of the COVID patients to try to separate – which we learned from our colleagues in China – to try to separate the COVID-positive patients from the other patients that had strokes and heart attacks and everything else inside each of our hospitals.

The number of patients in the Seattle area has leveled off and you really have not had this surge in the last month or so.

Absolutely accurate, Mike. And we're kind of holding our breath. At least over the last five days the number of COVID patients reported has stayed steady. So that proverbial flattening of the curve that I think we've all heard a lot about from everyone is right now occurring. We want to see it extend itself out. And then the thing that's going to be the most encouraging will be to see the number of cases then start to drop. That'll tell us that all the things that we've been doing with social distancing and all the measures that we've taken are working.

I have to say, in the Northwest we're cautiously optimistic. We're still looking to see if there are outbreaks in the eastern part of the state, but we have a feeling that we may be entering another phase in dealing with this epidemic. Then what's going to be critically important is that we continue testing to make sure that we

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To me the analogy is just like a wildfire because once you can't put out those embers, isolate those individuals and their contacts, this could really restart itself.

So it's just as important once you're through the first wave to really make sure that we're going to do the right things as we continue on past that.

As we look at parts of Southern California, I know you have a number of hospitals here and at the moment it appears the breakout is substantially less in parts of Southern California than we're seeing, say, in New York. What has your experience been in your hospitals in Southern California?

Mike, it's exactly as you described. It's been relatively quiet. And what we're hoping is that a lot of the measures that California took early on are going to really help stem the tide. We're expecting that we're gonna see cases in Los Angeles, and that's not to be unexpected. The key is to keep the case level at a steady, manageable level so that as health care providers and institutions – whether it's Providence or UCLA or Cedars – we can manage it on a regular ongoing basis. And that's kind of what we've seen in the Northwest. We've been able to keep up with what we have. The number of days if someone has to be on a ventilator has been relatively short at 5.5 days, and we've been able to turn folks around.

The health system starts to break down when it gets overwhelmed. When there's so many people at the front door, our practitioners get overwhelmed. The other thing that we've done is virtualized a lot of the care. So I think this week we'll probably go over the 20,000 level of virtual visits, where we're caring for people online with telehealth and other ways to do it without having them flood the clinics or the hospitals.

We think that's also helped us keep down the level of disease because you don't have a bunch of sick people congregating in front of the emergency room or in front of a clinic. We're able to take care of a lot of those cases remotely.

You've spoken about what appears to be a good response to Remdesivir, the Gilead drug., and I know you personally are very familiar with the anti-malaria drugs. And you've had these recommendations of the chloroquine and the Z-Pak and zinc combinations. Have you been using these, and have you seen anything that makes you optimistic about this combination?

I've been an immunologist / rheumatologists in addition to running the health system for 41 years, and it's kind of ironic – we've used hydroxychloroquine in the treatment of a lot of autoimmune diseases such as rheumatoid arthritis and systemic lupus
erythematous. And it's not a surprise to us that these would be some of the first drugs that we would try in this condition.

What we've been doing is, we have a number of trials that we're part of, ongoing. But we're also – for the folks that are using it off label – we're also gathering all of their information on how successful that combination of either hydroxychloroquine or chloroquine with Zithromax is in patients. This gets solved by accumulating data. In general what we've been doing is it using it in patients particularly that are hospitalized, particularly ones that were not pleased with their clinical progress, and those are the right places to give a trial to something that has a relatively low side-effect profile but could have some significant benefit.

But some of the anecdotal evidence out there is clearly very good. A lot of folks are saying, well, if I take it, will it prevent me from getting sick? We don't know that. Right now, given the supplies of what we have of chloroquine or hydroxychloroquine, you'd like to use those on patients that are in the hospital and that could benefit most, potentially, from these medications.

Rod, you and I have spoken about collaboration between different groups for a long period of time. What have you learned, and what is the collaboration between your clinicians, your doctors, your administrators with China or South Korea or Italy? Have you learned much from that collaboration?

Absolutely. One of the things that we learned quickly to do was start picking up the phone and computer and comparing notes with our colleagues in China, Italy and Korea because they were ahead of us. Clinicians learn a lot by doing. So just this a Friday, doctors have these things called grand rounds where virtually we can get a couple of thousand clinicians together to talk about cases, to really exchange scientific information. And this is how we do a lot of our learning in general in healthcare.

But particularly with something like this we've learned a lot of valuable information. Some of the information that we've learned from our Chinese colleagues is how to manage people in the ICU and on a ventilator. And we think that's really helped our percentages in how well we've done with some of our patients. They also had a lot of advice for us on protective gear. They were concerned when they were seeing pictures of some of their American colleagues without having head covering in ICUs, and they sent us protocols for how we should be protecting our caregivers, particularly in the ICU.
So I could go on and on, but all of them have given us really good fundamental thinking. We've asked them some of their preliminary results with agents such as hydroxychloroquine. Clinician to clinician, we can learn a lot on the fly. One of the things I've recommended to a number of my colleagues around the United States is try to learn as much as you can. We've done some of that learning with some of our fellow health systems across this country to talk about all the things that we've thought worked and what didn't work in dealing with the flood of patients that are coming in.

I don't think people realize the pressure on the health system today when you stop elective surgeries and you see so many of these small regional hospitals have very few people in them. They might still have their orthopedic surgeons and others on staff, but there's nothing going on at this time. How much of an economic pressure is there on you as one of the largest three health systems? And what about these small systems where at the moment they have not seen a surge of patients with the coronavirus?

Mike, that's a great point to bring up. I've been talking to my colleagues all around the country. I was just on a call yesterday with my colleagues. What we're seeing in general is anywhere from a 50 to 80% decrease in revenue for health systems and hospitals across the United States. And what is happening is that all the usual things – elective, outpatient – have all come to a halt, and the expenses in terms of caring for COVID-positive patients. But just even keeping our staff on call, our doctors on call, our orthopedic surgeons, we're having them answer the phones and do some other things for some of our offices, but they're not doing the things that they do best, which is operating. This situation is even more pronounced when you look at rural or small hospitals where on a good day they're balanced on a dime. They're there without business coming in. And maybe even in cases where they don't have any patients that are COVID-positive, they're still seeing profound financial effects.

What worries me is as we come through this epidemic, what will be the status of the institutions or hospitals and the doctor clinics and outpatient facilities post COVID-19? I have a lot of concerns there.

It's been more than two months that – particularly in your Seattle area – you've been on-call. How has the wear and tear been on your own healthcare workers – our first responders in a sense – and maybe lastly, how many of them have gotten the virus from treating others?
As a clinician who lived through the whole evolution of HIV back in the late seventies, when we didn't know what we were treating, then we found out what we were treating and the stress and strain on clinicians to care for patients, particularly when there's (at that point) no cure for what's going on. We saw this a bit with the Ebola crisis a few years ago.

So front and center, what we did was we made sure that we were at least finding out under what strain our people were. We actually have an application that's out there so that we can get support to our frontline people, psychological support. The thing that has worried us the most is the prolonged nature of this crisis.

Typically in other things it's relatively short lived, but when it goes on for a significant amount of time, there's a tremendous amount of stress. And when I say caregivers, that's also our environmental services people, our dieticians, our respiratory technicians, our nurses and our doctors. And they're all our heroes out there and we're doing everything we can to support them, but we worry about the effects on them and on their families.

“They're concerned when they come home after a shift. Are they going to give this virus to the rest of their family?”

for their clothing, and just everything else that they're worried about transmitting this disease. And it creates a tremendous psychological burden. So we've been on that front and center and trying to provide things like childcare for our frontline nurses and technicians. All of those things try to ease their way a little bit. And then how do we relieve some of our practitioners so that they're not out there on the front line, day in and day out, recognizing that they need a respite from all of this.

If you asked me what worries me the most as this extends, that would be probably number one on the list, Mike.

Have you had many instances of your caregivers getting the virus from treating the patient?

We've been in a situation where it's been a relatively low percentage. What we're doing is publishing that so all of our providers know we're being completely transparent about our data so that as frontline nurses and doctors, they know exactly what the transmission rate has been amongst our caregivers that are out there.

We think that's really important that that's not a secret and that we're putting that information out. But so far I would say we've been doing a fairly good job in that arena. But it's something that we have to have utmost vigilance in.
If we're not caring for our caregivers, I just don't know how we're gonna win this. That's another message I think for the rest of the country as we go through this. Take care of your caregivers. Make sure they have adequate testing. Make sure they have adequate protective gear in whatever way it can be gotten. And also caring for the mental state of the folks that are having to deal with this on a day-in and day-out basis.

One of the positive things I heard from you today was this collaboration between clinicians and doctors and administrators in China, Korea, Italy, and other countries with yourself. We have found in research, where people have a common bond, it transcends borders and politics. I personally am energized by the fact that you're able to share this information. Last question: the experience in South Korea and China was so different than the experience in Italy. The vice president said to the United States that our experience might follow Italy. What has your interaction between China, South Korea and Italy told you, and what should we expect?

Italy's a unique situation. Particularly knowing that part of Italy very well. Generally an older demographic, which is at higher risk. A greater concentration of people in a relatively dense, populated, area. The third thing is that in Italy we have a lot of cross-generational living, young people with their grandmas and grandpas, which also makes communication of disease easier. I think relatively late, social distancing started, but it probably didn't start fast enough.

I think that's the Italian experience and in what we've seen in Japan and Korea and ultimately in China was that the social distancing really helped. Hand hygiene, and hygiene in general, has been correlated with being able to suppress the levels of disease.

I think the picture in the United States, because we're such a vast nation, will be different – and maybe different in different regions or cities. In the United States, one of the things I've been seeing that's had me a little bit worried is that this pandemic is also showing disparities in health care according to your socioeconomic status. What's concerning to me is that in particularly poorer parts and poorer neighborhoods in some of the cities there's a greater intensity of disease. It demonstrates [that] food and nutrition, homelessness, and all of those factors also play a role in how this epidemic spreads. But we'll learn more of that.

So my answer is that we're going to see a little bit of everything in the United States, hopefully more on the example of health they were able to work in Korea than what we saw in Italy. Germany's another example, Mike, of a country that's kind of gotten on this a little bit faster, learned a lot, and done well. So, all Americans, we're always persistently optimistic. That's what makes us the country we are. And we'll dig in and win this one.
Rod, thank you and all the best to your family. Great to visit with you. And we look forward to the day when we all can get together again in person.

Thank you, Mike. Thanks for everything that you do.