

Right now, in New York City with COVID, we are accepting about 20% of the volume of COVID patients through the city; and so technically as an ICU doctor, patients will come to the hospital...see someone like my dad...will decide if they're sick or not. If they're good enough to go home they'd never see me and then if they are sick, then they'll come up to the floor. And then if they're very sick, then that's when someone like myself will get involved. And so, my job is to decide which patients need ventilators and once patients are put on ventilators, how long they have to stay on them. The treatment of these patients. And so, my whole long-winded point is that I'm kind of in a unique position to kind of comment on what's going on.

I think, the, the first point I want to make is why are we having this phone call or why did I think it was important to have this phone call. I think in the medical community, especially for people on the front lines, there's kind of two thoughts right now. About kind of interacting with your family and talking to your family about what's going on. The first is to get angry and I think that that, you know, I think a lot of doctors are looking around the country right now, especially doctors in New York and thinking that people are taking the seriously. There's kind of a desire to scare people into kind of getting serious. But I was working last night and I think that there's a second kind of feeling out there right now, and I think that this is what, is what I'm feeling right now is that doctors like myself are in a very unique position to actually empower people right now. And what I mean by empower is to learn about this disease.

I know you guys have a lot of questions that we will get to. As many of these questions as we have. But the reason I want to have this call is because I don't want you guys to be scared. We're three months into this in the medical world and we understand this disease. And so, I'm going to go through kind of ways to protect your family and then what to do, if and when, given the size of this call, it's a when, someone gets COVID and how we can protect our circle. You may care a little inflection of my voice like I'm emotional. It's not because I'm scared. It's actually the

opposite. For the first time in a while, I'm actually not scared. So I'm going to share with you why that is so just a quick introduction as to what's going on in New York.

I work at probably the premier hospital in New York City. It is a 1,200-bed hospital. We do everything from surgery to transplants, lung transplants, heart transplants. At this point, we do none of that. Almost none of that. Our hospital is almost exclusively a COVID-19 hospital. And so, people enter through a secure gate in the front. Where in the past, what I have been doing is seeing old people with pneumonias or seeing people with bleeds. Almost exclusively what I do all day long is see people with COVID-19.

But, we're learning, and we know a lot. And what I want you guys to know is that every single day we're getting better. We know more and I am confident that the stuff I can tell you today should make you guys feel like when this comes to your community, that you don't have to be scared and that you can protect your family.

Before I start, I just want to say thank you for everyone who responded to all of the mask requests. It was overwhelming. I'm receiving masks pretty much every day now. We still have a severe shortage. But it's something that is improving every single day and I think it's just really great to know that I have all you guys behind me.

Okay, so let's get into stuff that's actually helpful for you! (chuckles) So, the first thing is just, what is COVID-19? I mean, it's now every single news story, it's political, it's economic. But what is this disease? So, this is a virus. It's from what we would colloquially think of as a common cold family, the coronavirus family. But what's unique is that the human body has never seen this virus before. And so, this obviously started in Wuhan. The thought is that it came probably from an animal and then made its way into the human body for the first time.

And so, one of the common questions I get is, "What does this disease look like?" And, so what commonly people have is they have fever and they have cough, and then they have sore throat. And when they get this, the virus goes through their entire body, and what we have found is that the most likely place that this will affect is your lungs.

And so, people will commonly have cough. But for about 80% of people, you just don't feel good...is the most common thing. You have a mild cough, maybe you have a little headache. The disease lasts, from what we're seeing, between 5 to 7 to 14 days. It's probably the best accurate description.

Some people who have a mild disease by about day 5 are starting to feel better. And then people who aren't feeling better usually start to get short of breath around day 3 to 5. And then start to feel better around that 7-day mark. And so, what is the first kind of big topic we're going to talk about? I think the reason I wanted to have this call is how to protect your family. I think we've learned a lot and I want to kind of share all the stuff that I've learned so far with you guys.

So, I think the first thing is how do you get COVID? I think that this is really important, and we've really learned a lot over the last couple weeks to months about how you get this disease. And so, the overarching theme is sustained contact with someone who has this disease. Which the vast majority is people with fever and aches. Or someone who is about to get the disease. So, someone in the next one to two days who is going to develop symptoms of this disease. And so, the way that you get this is the transmission of the virus almost exclusively from your hands, to your face. From your hands, to your face. So, it's either into your eyes, into your nose or into your mouth.

So, there's a lot of talk about contact, or getting it through contact, hands to face. There's also a small thought that it can be aerosolised. That it can kind of exist a little bit in the air. The thought at this point is that you actually have to have very long-sustained contact with someone, and I'm talking about over 15 to 30 minutes in an unprotected environment, meaning you're in a very close room without any type of mask for you to get it that way.

But to very simply state, the overwhelming majority of people are getting this by physically touching someone who has this disease or will develop it in the next one to two days, and then touching their face. And so that, actually I think, is incredibly empowering and that's as I've been in the hospital the last two days. The thing that makes me smile a little bit is that I actually know now that I won't get this disease. Because I know how to protect myself. And so, I just want to give you guys a few very very practical tips on how to protect yourself.

So, the first point before I get to that is something-

Dave, one moment, I just want people to know that we're recording this and we can send it out so you don't have to take notes. I think I hung up on Dave.

No.

He's there, he's muted. Okay Dave, go for it, sorry about that. Thanks Alex.

Okay, simple statement of fact, COVID is in your community. I'm going to say that again. Whether you live in Texas, whether you live in Tennessee, whether you live in Florida. It is in your community right now. That is not to scare you. That is to just tell you, so that you can then take the steps that I'm talking about and not be scared.

So, the first step, which I think is incredibly clear, is to become a 'Hand Nazi'. Know where your hands are and know that they're clean at all times. So, very simply for what this means for me and the city is that I walk around with Purell.

Did someone not mute it?

So, walk around with Purell. So, every- when I leave my apartment. Everything that I see that I'm going to touch, I make sure that I Purell first. So, when I leave my apartment door and I go to the elevator. It's okay that if I touch it with my hand, but then I Purell it.

When I go downstairs, and I open the door, it's okay to touch the door. You can open it with your elbow. But if you touch the door, then I make sure to Purell it. So, we know that if you keep your hands clean then you're not gonna get this.

The second point is that this is not a disease that we're getting because someone is sick and touched something and then an entire community of ten people get it because they touch that. It's mostly from sustained contact with people who have COVID-19. Out of an abundance of caution, we also make sure that everything we touch, we're cleaning our hands. So that's the first thing, become a 'Hand Nazi'. Everything you know about your hands, just keep them clean, and you will not get this disease.

The second thing is, you have to start psychologically working on the connection between your hands and your face. So, I'm terrible at this. I touch my face all the time, literally all the time. You don't even realize it. You move your hand, you know, you scratch your nose and so the virus has taken advantage of this, and the reason

why everyone gets this disease is because you have sustained contact with someone.

So, someone at a party has this, and you shake their hand. Right? And then you touch your face. It's that simple. That is how you get this disease. So, what does that mean? I think there's two practical things that you can do. One is just to start to be aware of when you touch your face. Atul Gawande, who is a Harvard-trainer surgeon, I think he's very famous, actually has a recommendation for people to just start wearing masks. And the idea here is not that the mask is going to prevent you from getting COVID. Because as I said, it's not a disease that you're most likely getting from the air. But the reason to put on a mask, is because, and I do this in the hospital, you just stop touching your face.

And so, what I would recommend is now when you're leaving your house is to wear a mask. And it's, and I think those two things combined is incredibly powerful and will prevent the transmission of disease in your family in 99% of cases. To know your hands are clean and to not touch your face. Period. There are going to be an obscure 0.01% of patients who get it and will just never know. But I think for you, that is an incredibly important way to protect yourself.

Three, you don't need a medical mask. You don't need a medical mask! These masks that people are wearing are not protecting them from getting the disease. And front care healthline need these masks right now. That's not to say don't wear a medical mask! If you have one, that's great, put it on. But it doesn't mean you have to have a wild supply of masks or N-95's or anything like that. The general community has zero needs for an n95 mask, zero.

In the hospital, where all I do is take care of patients with COVID-19, I only wear a mask, an N95 mask if I'm in the room with that patient doing something that's going

to make them have aerosolization of the virus. That is no one in the community. So, to summarise, always know where your hands are and what I mean by that is when you leave just become aware of when you're touching stuff that's not from your protected home environment.

So, if you're going to go to the grocery store; if you're going to touch the cart just clean the handle. If you go into the store, and you see people around, don't touch them. It's incredibly simple. The fourth thing that I'll say, which is the thing that the government is talking about and kind of is the same principle is distance yourself. So, this is incredibly fascinating in New York City now is that nobody has within six feet of each other and it actually has not changed their life that much.

And so, I think when you go to the pharmacy, because people are going to the pharmacy now, you don't have to wait directly in line with someone. You can stand a couple feet back. And so, the four things, I think I said four things: 1. Always know where your hands are and have Purell. When you touch stuff that's outside your home, just make sure that you're washing your hand. 2. Start to learn how to not touch your face. A really good way to do that is to start wearing a mask when you're out and if you want to practice wear a mask when you are home! Number three is you don't need an N95 mask or a medical mask. Any mask will do because this is not preventing the disease. This is training you. And then the fourth thing is, just stay away from people. So that's the nitty gritty of...stay 3-6 feet away from people. So that is the nitty-gritty of not how to give yourself this disease or get it from your community where it is at this time. So, I think this when you understand those four rules the next thing that I think is so important becomes true.

(audio interruption) Good? Yeah, sorry Dave go ahead.

You don't. You don't have to be scared of the outside world. No, you don't have to be scared of your neighbor and I've actually found that to be incredibly liberating right now. So, in New York City, we're receiving food from delivery men, we have to go outside to the grocery store.

It's a time when we're all really scared. And I think it's what makes it worse is to, when you go outside, and to look, and think that the person next to you is going to somehow harm you or harm your family. But when you know that the only way you're going to get this disease is if your hands are dirty and that if you touch your face and that if you are way too close to that person that becomes incredibly liberating and then all the sudden the person at this door is not your enemy!

There's someone who's going through this with you. The delivery person is not your enemy, they're are a hero! They're going out and delivering food at a time when there's a communicable disease that they don't understand. The mailman is a hero! You know, these are people that, we have to, the same way we're acknowledging and celebrating health care providers. When you understand this disease and know exactly what to do to prevent getting it, then it allows us for the next couple weeks to months to be able to sustain the system that we have we have to be able to have now. We have to be able to get delivery. It's seamless in New York City, it's the only way we eat! But if you can protect yourself and you know your family is safe, then I think that's empowering.

Socially, it's incredibly important and we did this at my mom's house. You have to shrink your social circle. And so, what does that mean? So, in our family, I think you guys know that my parents live on a farm. We have a lot of traffic to the farm. We have families who come and see the horses who rides the horses.

You have to understand that every person, every one of those people, have potentially two or three other contacts and two or three other contacts. And so, what I would highly encourage you guys to do as the country is shutting down is find your isolation group, find your group of two people, three people. Your family. And set boundaries. That is it. The people who are going to get this are people who are maintaining large social circles at this point. So, what does that mean for my family is so Gene Young and our kids and my mom are on the farm. They're at the Hopewell house and that is exclusively the social circle that they're circulating. They talk to their family every day, they see people you know, like through FaceTime. But there's no one coming in and out of the house. They can still go to the store and you can go to the store without any fear because you know, if you wash your hands and you don't touch your face, you're not going to get this disease. And so, it's very important at this point to keep your social circles small. Don't have, don't be going to the health club. Don't be putting yourself in a situation where you have a lot of contact with a lot of people because it's just a vulnerability.

You don't know that the person at the farm who you slapped hands with two days later will not have this disease. Because then that means that you're going to have to socially isolate at that point even more.

So the third thing that I want to talk about, is something that is inevitable in a group chat that is this large which is, what you do if you get this disease and this is I think if you listen to nothing else through this entire thing, please listen to this part! In Wuhan, China throughout the world, the vast majority of spread of COVID-19 is through home and family transmission, so I'll say that again, throughout the world the way this is transmitted is from husband to wife, father to son, daughter to brother. Whatever.

And so again, that's incredibly scary, but it's also something that if you understand the rules it is incredibly empowering. So, what do you do? If you develop a fever and

you're otherwise fine. Then isolate yourself from your family. So, what does that mean? It's just simply about the same rules about hands and touching your face is you don't want sustained contact with the person who's sick to the point where you're going to be able to pick this up off of surfaces or off your person and then touch your face.

So, what are people recommending? If you're able have the person in a separate room. If you're able have the person who's sick have their own bathroom. If the person has to come out and interact with people in the family, this is a perfect indication for one medical mask and the reason is you want to put the mask on the person who's sick.

And so, if in our apartment, if I was sick and I had to come out and interact with my family. Before I would leave the bedroom, I'd wash my hands. I would put on a mask and then I would go out and maybe I would sit down and eat food at the table and then after that, when I was done. I would eat the food. I would put it in the sink. I would make sure that anything I touched, which is a very simple area on the table, it's just washed and then I would go back to my room.

And so, the point is to not have sustained contact with someone in your home who has this disease. You're going to want to take care of them, you're going to want to be in and out of there. "How are you doing?" Checking their temperature. Don't do it! If you're touching the temperature probe constantly to their mouth, that is where the disease exists and then you're going to get on your hands, then you're going to touch your face.

And so, you shouldn't be scared to stay at home with your family with a fever if you have COVID-19. The vast majority of people are going to have a fever, body aches, feel like shit for three to five days. Feel a little like shit on seventh, and then they're going

to start to feel better. You can start interacting with your family more as you feel better. As your fever is gone, but you're still going to be vigilant! You're going to be watching your hands, you're going to be a lot more confident 20 days out from the disease than you are 10 days out from the disease.

The current recommendation from the CDC is that if I get sick and I'm feeling better, I can put on a mask and go to work; and so I think that that is a good indication to you that that's when you can start interacting with your family. Is that if you have COVID and you've recovered, you've isolated in your room for seven days and you've been able to get food and when you've been with your family you've worn a mask and you're feeling better. Come back out to your family's life, keep a mask on and wash your hands.

So, I think that that is a very simple way to do it. I'm about to get to questions. I just want to make a few other small points, because this is some stuff that's come up that's relevant in New York City...

What do I do if I have a mild cold? So, I think given how rampant COVID-19 is at this point, I think if you have something that feels like a cold or you feel like you're getting sick, just take the precautions like you have COVID-19 for one to two days. If in one to two days you're feeling much better, and this is like the thousand other colds that you've had in the past year because you have kids, you don't have COVID-19! And then you can go back to your completely normal living-at-home life with your family, so I think it's just important the place we get into danger is people being too cavalier when they're developing symptoms and exposing their family too early and then when they get fevers and they're staying at home is that they're having too much interaction with their family. You can have COVID-19 in your house and everyone else not get it and be protected and be completely safe.

There are a couple exceptions to that, and I think this is important. If you have a vulnerable population in your family. So, if you're living with your lovely 95 year old grandmother. If, you know, there's someone in your house who had recent chemotherapy and someone in the house gets sick you need to find another living arrangement for that patient or practice incredibly incredibly strict isolation of that family member. We know that the older population is the sickest population when they get this disease and so that is the one caveat to the 'it's safe to say home with your family'. If you have someone who's incredibly vulnerable, you need to set up a situation in the house where they're completely isolated from the person who is sick. Maybe you could have another person take care of that family member in your house who you have no interaction with. But simply being in the home with COVID-19 will not get you that disease.

It goes back to the same three principles. It's touching a person or a surface, who has COVID-19 and then touching your face.

And so, lastly for this and before I get to some of your questions is when you go to the hospital and so I think probably the question that a lot of people are asking is, "If I get COVID-19 and I feel short of breath am I just going to go to the hospital and die?" This is where I'm probably the most qualified person in the country to comment on what it looks like when people are coming into the hospital and are sick. So, first, you should go to the hospital.

If you're feeling short of breath, come to the hospital. That is the rule, that is the clearest thing. It's not, I have a fever. It's not, I think I have COVID-19. It's not, I can't stop having these body aches. It's, I feel short of breath when I get up to go the bathroom. Those are people that should come to the hospital to be evaluated. At Cornell right now, what we're doing is a lot of the people that come to the emergency room, we're sending home to live out the four or five days of their

disease so that they can feel better and we say, "Oh! you look completely fine. Go home."

What we're also seeing is that people that feel short of breath, who come to the hospital, some of them go on to the floor and just stay short of breath for five to six-seven days and then they go home. So, of the entire population of people who get COVID-19, about 10% need to go to the hospital because they get short of breath. Of the 10% who are coming to the hospital, about one to two to three percent of those are required admission in the ICU and should be put on the ventilator.

So, what happens when people get put on ventilators? The vast majority of people, overwhelming majority of people, come off the ventilator; and they usually come off the ventilator seven to ten days later. But I think the important thing for you guys to know is going to the hospitals is not a death sentence. It is a safe place for you to be. Go to the hospital when you're short of breath.

Don't go to the hospital just because you have COVID-19. And then I think the question that we're going to get a billion times over and I don't have a perfect answer for you at this point, because it's different in every community, which is: "Should I get tested if I have the disease?"

If I'm a generic 35-year-old who is sick, I think it depends on the availability of testing in your community. What we know right now, now that people are home is that if you have, and not having a lot of social contact, is that if you have diseases, like, if you have symptoms like the flu it's likely you have COVID-19 and nothing that I told you about behavior, well, interacting with your family a lot of that stuff would change by knowing that test result. The caveat is, if your community whether that's New York or Tennessee is testing a lot and you have clear access to testing, absolutely getting

the test is a good idea because when it's negative then in a day when you're feeling better, you can have full interaction with your family.

So, I think that is the key but if you live in a community where there's very rare testing going on at this point, do not try and jump the line to someone who's actually short of breath and really not doing well just to make yourself feel better and to know that you have it. Just take the precautions in your home that I said and then as testing ramps up then we'll be able to get more people tested. So, I think I've discussed everything I wanted to discuss and so if Dan doesn't have any other suggestions then I'm going to switch over to questions and I'll try and answer as many of these as I can.

Dan so let's start with the top or do you have a recommendation? I think so, because this goes in the order of transmission to symptoms. Okay, transmission.

"How does this virus affect infants and newborns?" Excellent question didn't talk about it. There have been reports of infants and newborns who have contracted COVID. We don't think that it's vertically transmitted, meaning we don't think that it goes directly from the mom to the foetus. The suspicion is that it goes after, through contact. The thing that I think makes a lot of parents, doctor parents in this world, very happy right now is there's almost no COVID disease in the population from age zero to age 14. So, I'll just state that again, kids are not getting sick.

Now there are some exceptions, you know, there's a recent New England Journal article where they went into a hospital in Wuhan, China pediatric hospital and in the entire hospital of 300 kids, they found 2% of them were 4% of them had COVID, which really looked like cough or asthma.

So, kids are not dying. Kids are not getting critically ill. Kids are not getting sick. There's a whole debate about whether kids are transmitting this disease. It's probably true. But I think if the gist of the question is how does this affect infants and newborns? It's really not. From Bey, "I keep reading conflicting information on whether COVID-19 is airborne versus droplet transmission. Do they absolutely know for sure?"

So, I think if I know Bey well, this is a question about protecting nurses. And so, I can tell you what we're doing in our hospital and what our experience has been. And so, what we know is that the vast vast vast majority of COVID-19 transmission is droplet and what that means to all the people on the phone call who don't know a droplet means is it is hands, the face. (chuckles)

So, it's getting a droplet, so something that comes from your mouth, either goes on your hand or falls onto a surface and then it's very quickly taken up, touched and put on the hand or put on the face. So, what does that mean Bey in our hospital and so, the only time that we wear an N95 mask, which is to protect against airborne transmission, which is getting it just from particles in the air, is when we're doing something to a patient to make them spit a lot.

So when we like suction in them, or we do something to disrupt them, that's the only time the vast majority, ninety nine percent of the time or ninety, that's not true, eighty percent of the time that the nurses are in the room with a COVID-19 patient, they're just wearing a simple surgical mask.

Only when they're doing things that are going to make them have to get secretions out or spit which is called an aerosolizing procedure, are we using N95 masks. So, the direct answer to your question is there's probably a small amount of airborne spread for nurses and I know we have a lot in our family.

In Hong Kong and Singapore; doing those precautions, which is only wearing a surgical mask when seeing a patient and only wearing an N95 when doing an aerosolizing procedure, there was zero transmission to healthcare providers. We do have health care providers who are getting sick and they're getting very sick. So, people who are getting sick are one very clear population, which is healthcare providers on the front line who are having extensive contact with patients and not protecting themselves.

So, it is for the most part general practitioners who are in the office in New York, it was three weeks ago, who didn't know that someone had the disease and spent 25 minutes in the room and then did a nasal, you know, check their nose and those are the people that are getting sick.

It's emergency room doctors who, three weeks ago, in New York City did not know the level of protection that they needed when they were interacting with people with active COVID-19 disease. What our experiences in our hospital and we've been doing this now for three weeks is if you wear the proper protection, you can interact with these patients indefinitely and zero people get sick.

So good question Bey. Jen Toadvine, "We're wondering, being in a city is it really safe to go on a run or walk taking in the social distancing measures?" Amazing question. Yes. Please, if you're in a city you can go outside. Just follow the rules. When you go outside, Purell your hands. When you're going to touch the elevator button. When you touch the door, Purell your hands.

Don't touch your face. When you're out walking in the city, don't come within three to six feet of people. Let's say hello, smile, no one is giving each other this disease by walking through a city. If there's a bike path, you can walk on it. The only caveat is

just don't get sloppy. Don't, you know the problem with telling people they can't do things is that everyone just assumes their old lifestyle. That is not what I'm saying. I'm saying it's safe in New York City, in Philadelphia, to go on a walk. Just follow the rules. Just follow the rules! I would encourage you to wear a mask, not because you're getting the COVID from people when you're outside. It's because as a society over the next couple months, we need to train ourselves to not touch our face and we need to tell people that we're taking this disease seriously. It's not because you need to wear a mask in the city, because that's how you're getting the disease. It's all back to the basic two to three rules. So, yes, go outside have a short walk. Breathe. Know that the world's going to be here and then go back inside and follow all the rules! (Chuckles)

Dave, on the masks, do they have to be the simple medical mask or like a bandana, for example?

I think a, I think a bandana is, at this point, where the doctors and nurses don't have enough face masks the bandana is a great idea.

Because it keeps your hands off your face.

Exactly, these are not preventing you from getting the disease. This is only preventing you from touching your face. Okay, John Regan.

Pardon me to interrupt, if you don't have Purell, any suggestions? Because a lot of places are out.

Um, I'll get back to you on that, what people are using in the absence of Purell. I think, that's another thing to say to Stella, is this disease is a wimp. Coronavirus is a

wimp! It dies as soon as you disinfect it. So, I can get back on the exact thing but just generally any type of disinfectant.

And then if you're going out and you don't have Purell, press the elevator with your elbow. You know, open the door with your shoulder. You know, that's not going to, that's not going to get you COVID. Ideally if you Purell, all you need is a small drop. You're going to kill this thing.

This thing doesn't violate the rules. There's not a mystery disease and so I think that that's a good point. But specifically, if people are using things beside Purell, I'll get back to you. Right, John Regan: "Is a long car ride safe, say 10 hours?" If no one in that car has COVID, you can drive for 200 days, and so I think as long as the person if you're driving by yourself, it's completely fine. If you're driving with Michelle, as long as Michelle has been fine and is fine. Drive forever!

Cara: "I would like to ask Davis if it is necessary to wipe things like groceries down with disinfectant while bringing them into the house." I think the general answer to that is no. I think that you know if you live in New York City, where there's a lot of contact with stuff that you're getting delivered. I think it's a reasonable idea to have the delivery person leave the food that they're delivering to you outside your door. You could probably pick it up with a glove and then just open the bag and all the inside contents are fine. That's it. An overabundance of caution, I think is reasonable. What you don't want to do is high-five the delivery man. You don't want to shake the delivery man's hand! (chuckles) You don't want to pick up the plastic bag that you're getting from Seamless and you know, have a huge long interaction with that bag. Because, of course it's possible a delivery person has COVID. But again, if you follow the rules and everything you touch, you just clean your hands, you will not get it. Continue to order food but no, I don't think you have to have routine groceries wiped down.

Cristina: "I'd like to know if it is irresponsible to go to Starbucks drive-thru." I think that's a complicated question. I think, if the simple question is, can both the Starbucks barista and use safely interact through that transaction? I think the answer is yes. Is it important that Starbucks and people have worked or continue to have jobs? Yes. My general sense, given that we're all hunkered down is to make your coffee at home. If you're going to go to Starbucks drive-thru, follow the rules. Wash your hands, except the coffee, wash your hands and then drink your coffee. And what I mean is a drop of Purell or something equivalent to that. So, if you can make your coffee and stay home, I would recommend staying home. If you're completely safe to go to Starbucks, just follow this.

Dave, there is one more grocery related question, which is, "What about your clothes when you come home?" I guess it's beyond groceries, but like you go out and come home should you be putting your clothes in the laundry?

Absolutely not, absolutely not. That is a recommendation for healthcare providers, like for me who, I live in rooms with COVID patients, you know for 12 straight hours. For me, I will take off my clothes and wash them and I have a whole procedure for that. For people who are generally going out, who are following the rules, wear your clothes, no problem.

"Well, if you live in an apartment building to run out of disinfectant wipes, is there a good alternative?" I'll get back to you on the alternative. I'm sure the answer is yes.

Okay, John Regan, "If you become sick, how long should you wait before you go to the doctor or hospital?" So, I think we loosely addressed it, but I'll directly address it. Which is, don't go to the doctor. Don't go to the hospital! The only rule for going to the hospital is if you're short of breath. What is amazing now? Is the during the

COVID outbreak, is the use of telehealth. And so, by far, if you feel sick and you're little nervous, whatever your healthcare provider is...for us it's, you know, I work for Weill Cornell. We have Weill Cornell Connect. We have an army of doctors who are at home waiting to take your call. We will tell you that you have nothing or that you have COVID-19 and you should stay home.

So do not go to the doctor. Do not go to the hospital. I would encourage you to use telemedicine, which is completely rampant right now, because we have a ton of doctors who are at home and we'll take your call over the internet.

“Is there a clarity about the incubation period? If no, signs?” No, John I think the incubation period is probably dependent on exposure and so people who are exposed to a lot of disease like an emergency room doctor who interacted with the patient for a long period of time without any protection could be anything from a couple days to someone who doesn't, who has an interaction with someone with very mild symptoms and it can be upwards to 14 days, which is where the CDC recommendation is for people to stay home for 14 days and then there's been the rarest of reports of it being beyond that. So, I would say if you had a casual contact with someone and you don't feel sick at 14 days, then you probably are not going to develop COVID disease.

Chris Solace: “Is there an emerging understanding or hypothesis surrounding and contributing to why certain younger patients in the 30s and 50s have been having acute respiratory course compared to their peers? Are these patients truly healthy or do they have comorbidities?” So, amazing Chris, because I didn't have a chance to address this and so again everyone listen, please, listen to what I'm going to say. This disease affects everyone who's not in the age group of 0 to 14.

So, 23-year-olds, 35-year-olds, 45-year-olds with zero medical problems are getting this disease. People like that are coming to the hospital. People like that are going on ventilators. There is a very evil narrative early in this disease that said that this is only a disease of old people and people who have hypertension and of people who have diabetes. That is not true.

I can tell you because all I do is take care of patients. It hits the entire spectrum of ages. So that includes older people who do worse. We see a little bit more older people. We see a ton of 35-year-olds and we will understand it someday, but we don't understand it right now.

So, it's not the scare you. Just follow the rules. You can get this disease from age 20-years-old, maybe 16-years-old all the way up to age 105 and you can get sick and end up on mechanical ventilation, on a ventilator. The younger you are, the less likely that is to happen. The older you are, the more likely that is to happen. But we see young people who get really sick, and we see old people who do just fine. And so, I think it's a great question Chris, but I don't think we know exactly why young people are also getting sick. But it's just to say, follow the rules. If everyone does it, you're going to be fine. You're not going to get to the disease. If you get the disease, follow the rules! You can protect your family. Most people will be fine. If you're short of breath go to the hospital, so I'm just trying to make it as simple as possible.

Mariana: "What are the symptoms? What to do if you have them? Okay to use Ibuprofen with fever?" So, I think I touched on what the symptoms are. The vast majority of people are going to feel body aches. They're going to have a sore throat and they're going to develop fever. Upwards of 90% of people are going to have fever. So, I think that's what it looks like. Very interesting question about ibuprofen, we're not using it in the hospital anymore. There's really good data from Germany that there's worse outcomes in people, more inflammations in people who use

Ibuprofen. So that's a simple answer. Which is if you have a fever, take Acetaminophen, Tylenol. So, don't use Ibuprofen, use Tylenol, it's very simple.

Conner: "I'd like to hear a bit about what it's like treating these patients. A couple of stories from the front lines on this." (Dr Price chuckles)

It's actually fascinating because they all look exactly the same and so everybody has a cough, everybody has a fever. Most people come into the hospital, they sit on the floor and they just have fevers. A lot will be nervous, which is completely understandable. They look like anybody else, what we see for people who get sick is they get short of breath and then over one to two to three days, they get more short of breath and then they get so short of breath that they can't walk to the bathroom. And then we put them on a ventilator; and then our experience has been that these people usually settle out over the next one day. And then between seven to ten days later, barring a complication, we're able to get these people off the ventilator.

At Cornell, we're 14 days into this. Our first patient was a 39-year-old who is now home. So, he was a 39-year-old who needed mechanical ventilation. He is off mechanical ventilation and he is safely at home and so, you know, this is...dealing with these patients is, for a doctor, incredibly simple. They all look the same, they all get the same treatment. For them it's scary and it's our job to, kind of, make them a little less scared. And when I tell every young person or old person that I have to put on a ventilator is, we're putting you on because we are going to get you off and I think that that's true. So if you had people, or you know people who are sick and short of breath, they shouldn't be scared, they should go to the hospital and we will take care of them.

A few more questions that came in on your sheet, "Are hospitals accepting homemade masks? Or is that something like in my mind, I'm thinking is that something like that we should be sharing amongst each other now?"

Yeah, I think what I would say is...if you...what the main role for a homemade mask at this point should be for you to use so that you can free up, if you have medical mask so that you can give it to hospitals or friends or medical providers. So, if you're sitting on a stash of N95 masks, you don't need those masks. You do not need those masks. So, I would, if you have a homemade mask or handkerchief and you can wear that, that would allow you to give those masks to your friend who is a doctor, your friend who is a nurse, your friend who is a respiratory technician so that their hospital is adequately equipped.

There's a question about the new normal. "How long until there's a vaccine?" "Will there be spikes as people resume life?" A related question: "Do you anticipate second or third waves?" Yes, so I think this is incredibly predictable and so I think social distancing will be for months to potentially a year. Which I know sounds like a lot, but I think though the experience from Wuhan, the experience from Singapore, the experience from South Korea is that the first thing you do is you flatten the curve. The first thing you do is you bring down the amount of cases, so hospitals don't get overwhelmed and then by human nature people will become a little relaxed with their social distancing. And so, there's then a second small spike. And then after the second small spike, it usually comes under control in the population. And so, I think social distancing is something that you need to just put in your brain. I think it's something that is just the way of life for the indefinite future. But now that you know the rules it's not something to be afraid of. It's just a different way of interacting and as this becomes controlled over the next three to six to nine months in this country, then you'll know exactly when you'll be able to hug! Um, exactly who you'll be able to touch. You'll be able to, I think, feel better. I'd say the first focus for everyone on this call, over the next seven or fourteen days, is to learn the rules. Learn the rules, because as soon as you learn the rules, it's empowering and then you can

start living your life in a new normal. Which will go on for three to six to nine months!  
(chuckles)

Sorry, one other question from Ed: "If you are unaware you have the virus during the incubation period, can you infect other people?" Yes, I think that the answer is yes, and so this comes from the cruise ship data and so I think there was a concern, a big concern, about asymptomatic spread; meaning people who never have symptoms of the disease spreading it to people who then have symptoms of the disease. What we know from the cruise ship data, is that that asymptomatic spread. It turns out that most of the people who receive the virus from someone else. The person who they received the virus from becomes symptomatic in one to two days. So, it's likely that people who get this disease are shedding the disease one to two days before they have fever.

So, what does that mean practically? It means that if you develop COVID-19 and have a fever, know who the people are in your life you interacted with over the prior two to three days and let them know. Because then they can do, they can follow the rules. They can isolate themselves in their house, they can create a separate bathroom and then after two to three to four days, if they're not feeling symptoms, they're probably not going to have COVID disease.

So, simple answer to your question Ed is yes, people transmit this disease. But I do not believe that there's this whole group of people out there who are giving this disease to everyone who would never develop symptoms.

David: "Are people becoming immune after they recover?" Yes, people are absolutely becoming immune. The stories you're hearing about people having rebound symptoms is usually the fact that they just haven't fully resolved the disease. So, let me say that more clearly. So, we know that from a day or two before you have the

disease, until about 14 days into the disease, that you're spreading the disease to the environment. We know that because scientists have done tests of the nose every single day to know which people are going to spread the disease. They don't do it to everyone, but the scientists know who those people are. What they have observed is that in 14 days, people will not be shedding the disease from their nose, but then at day 16 they will be. We don't think that that's because they've relapsed in their disease or not developed immunity. We think it's just because they're slowly coming down and the test is just picking up a little bit.

So, the vast majority...so 81,000 people in China got this disease. 76,000 have recovered with antibodies that prevent them from getting a disease. The natural course of this disease is that, once the world sees it, coronavirus now as a pandemic is going to enter the circulation the same way rhinoviruses are in our circulation, the same way that respiratory syncytial viruses are in our circulation.

But as it mutates, it's going to get milder and milder and so five years from now you're going to get coronavirus, this exact COVID-19, and it's going to feel like a cold. Just not the first time through the population.

Two pregnancy-related questions. One from a nurse who is treating patients regularly and she's asking: "Right now, I'm screening people prior to my appointment with them. Is that enough in combo with hand hygiene?" She works in wound and ostomy care.

Yep, absolutely. I think that is the system that is important: Screening people and hand hygiene. I think if you were doing ostomy care at the epicenter in New York City, in a hospital where you, you know, I've seen a lot of cases in the community. You could argue a simple surgical mask would be helpful. But if you're in a community that hasn't seen a lot of disease, screening and hand hygiene is everything. You

don't, you don't have to wear a routine mask and I think those recommendations from hospital systems are completely appropriate.

And now, Christy who is currently pregnant is wondering if you've treated any pregnant women and is it more severe at all in pregnant patients? I've seen zero pregnant women in our ICU. I think the data is that they're behaving like any generic person of that age. We are, in other words, we're not seeing it more severe in pregnant women. In our hospital experience, we're seeing a male predominance to this disease. It affects men and women, but we're seeing more men. But I don't, we haven't seen anything unique to the pregnant population. They get COVID disease, that's 100% true, but it's like a lot of people; which is they get it, they feel terrible and then they get better. I wouldn't treat a pregnant woman like I would a 95-year-old patient or a family member. I wouldn't put them in seclusion, they still have to exist in society. You still have to take walks, just follow the rules.

In terms of going to the hospital, if you don't just have shortness of breath, or when you can't walk and breathe and have a fever. Do you need all of those things or just the shortness of breath? No, I think I see them all as the same thing, which is it is shortness of breath. So, if you're walking and short of breath, you should go to the hospital. If you're sitting and short of breath, you should go to the hospital. If you have a fever stay home.

Last question is on Purell use, "Does it mess with the Ph balance on your skin rendering it useless?" No, but you'll get an eczema. (chuckles) I'm joking, we are seeing a lot of people who have hand-washing related dry skin which is very common because everyone's washing their hands a hundred times a day, but I think simple anti-infections, Purell, is completely fine. There's nothing to suggest that Purell is not working, or I shouldn't say Purell but hand sanitizers are not working. It is completely enough.

What about thoughts around herd immunity in the UK? What's your opinion? I think what the UK is doing is completely incorrect. Herd immunity will happen, but instantly allow a virus into a population and to get 60% of your population sick will overwhelm your healthcare system. So, I think everybody in the world right now is kind of pursuing a 'flatten the curve' system.

People will get sick, let's decrease the amount of people that'll get sick, and overtime-18 months the population will develop some herd immunity. The disease will get more mild and yeah, that's not a strategy for right now.