THE STORY GOES | DR. BARBARA TAYLOR | UT HEALTH SAN ANTONIO

MOLLY: And it looks like we are recording... Hey! It's us.

KIRAN: Hi!

MOLLY: We are virtually doing The Story Goes, not in the KLRN closet but via Zoom. We are both recording audio and also trying to get the audio going, so we can try and do this in a multitude of ways. It's me, Molly, from SA2020, along with Kiran, also from SA2020. We've been sort of figuring out what to do over the last couple of weeks, nearly three weeks at this point. And we thought, what's on top of everybody's mind? Covid-19. We thought we should probably talk to somebody who is an expert and a smart person, who might be a doctor, an epidemiologist, infectious disease expert, and immediately my brain went—BOING—I know that lady! Her name is Barbara Taylor. (laughter in background) Barbara, it's so weird that you are both my friend and a doctor. I feel like we are compelled to call you Dr. Taylor—

BARBARA: No, please don't. (MOLLY laughs) Just Barbara, that is fine. (1:10)

MOLLY: Great. You-

BARBARA: That'd be very weird because then I'd have to refer to use as Podmaster Cox or something.

MOLLY: Actually, then yes. Let's go with calling each other by those names.

BARBARA: Yes.

MOLLY: Thank you so much. I know that you are slammed right now, obviously. But you're with UT Health. You're working in clinics. You're on the front lines of this work right now, and I cannot thank you enough for taking some time out to come and answer questions about what's going on right now. (1:42)

KIRAN: All of the acronyms behind your name that we would want from a person speaking at this moment about what's happening and what is the information we need to know.

MOLLY: We also did something a little different this time. We actually went out to our social media and our contacts and said, "Hey, we are going to talk to a doctor about COVID-19. What are the questions that you have?" We got a lot of questions. It just goes to show this is so weird right now. I want to start with probably what seems like an obvious question, mostly because we are obvious humans, and then ask you as an infectious disease expert, what do we need to know about COVID-19? (2:34)



BARBARA: Wow. That's a great, and very broad and open-ended question. So,

MOLLY: We are ready to take the (inaudible).

BARBARA: I (laughs), so where to start with COVID-19. I think some of the things to know are there is the basic science-y things to know, which are that it is a virus. Well, actually COVID-19 is the name for the illness, like how you feel when you get sick, like how we call flu, flu. That's COVID-19. The virus itself has been names SARS-COV2, severe acute respiratory syndrome coronavirus number two because there was an earlier one. SARS 1 which didn't have a 1 because it was the first, but so that's now the name of the virus. You'll see it named a bunch of different things because it's evolving. We only learned about it in the beginning of January. That's when it was sequenced. So, there's a virus and a syndrome that it causes. It emerged in China and has now spread to become a global pandemic as many respiratory viruses can do. This one, things to know about this one, is it is more severe than many. It's worse than the flu in terms of the clinical syndrome it causes. It causes sort of mild disease in 40% of people, moderate disease, moderate doesn't sound that bad, but nobody wants moderate disease. It's actually pretty un-fun. It involves a lot of fever, a dry cough. The virus basically goes directly to your lungs. It often bypasses your upper respiratory system, so it causes a dry cough. It causes muscle aches. It can also cause some other things like occasionally it causes diarrhea. And in 20%, around, again we are still finding out about this virus, so everything I say is going to be couched in, this is the first three months of a novel virus. In 20% of people, it gets bad. It causes a viral pneumonia that requires someone to be hospitalized, if they have access to a hospital, and it can progress to having effects on your kidney, or your liver, or your heart. The virus and the clinical syndrome and I guess the other thing to know is how it spreads and how to protect yourself. (5:15) How it spreads, so it spreads mostly by what we call droplets. So, if I cough, you all aren't in a room with me, so you're aren't at risk, but if you were within 6 feet of me, then you would be at risk of whatever is in my droplets. There are some illnesses that hang out in the air for very long times. This doesn't appear to be that kind of pathogen, of virus. It definitely spreads from droplets, 6 feet. That's why everyone is talking about social distancing 6 feet away. It also does appear to be passed by surfaces. If I cough onto a surface, and then you go and touch that surface, and then touch your mouth or your eyes, it can spread that way as well. Our knowledge about this is really emerging. We are sort of learning how much of this is from contact with people, how much is from that I touch a desk, somebody else touches a desk, how do we understand all this? (6:22)

KIRAN: Yeah, Barbara, we know it has completely shifted our day-to-day life, just within the last month here in San Antonio. Every single person in some way made a change and has been affected by it already. Can you tell us more? Like bringing that large overview you've given us, walk us through what, from your perspective, San Antonio is doing right at this moment, and what could we be doing better? (6:48)



BARBARA: San Antonio has some advantage in that we are not the first wave to experience this virus. So, we are, I think all of us, collectively as a community, are trying very hard to learn from China and Italy and Seattle and New York, and all other places that have been hit by earlier waves of the virus. I think that the things that we are doing well is that we are looking out for each other as a community. So, all of the emphasis on physical distancing, on being careful, staying 6ft away from people, not congregating, I think we took, collectively as a community, I can't take credit obviously for any of this, but the tough decisions that people made early on to close schools, to close restaurants and bars. These are really hard choices as a community, but I think they are working together to keep us safer. I also think that everybody's choice, everybody's collective choice to protect themselves and to protect each other by, you know, not congregating together and providing opportunities for the virus to spread is really amazing. San Antonio has always had an amazing sense of community, and I think we are seeing that in how people are really willing to make sacrifices to protect our community, particularly the folks who are more at risk for complications with COVID-19. (8:27)

MOLLY: Yeah, the more at-risk space that you're mentioning right now, I want to talk about. We actually had a question about that. Kelly asked, "what is it about the underlying conditions or the people who are more apt to get it..." Her question was really two-fold. How come we aren't seeing kids getting it so frequently? And how come people with underlying conditions, she has chronic asthma is what she was specifically asking about, where is that from? What does that mean for a person out and about or staying home and protecting themselves? (9:01)

BARBARA: So, with every disease, there are more susceptible either to the disease or having a more severe form of the disease. So, like I said, we are learning with COVID-19 or SARS-COV2, and so far, the things that we know, that people who are older, so people who are over 65 are more at-risk for more severe disease. Why that is, you know, these are hypotheses at this point, but it is probably because as you get older, your immune system doesn't work quite as well. There are some really great studies that clinicians and the Chinese CDC did that were pretty amazing at pulling data on the population level in China that are really helping us with our response. Certainly, people who are smokers, or have lung disease like asthma or emphysema are more likely to have trouble, and that's not a surprise because that virus goes directly to your lungs and causes pneumonia. So, if you have trouble in your lungs to begin with, it's going to be harder for you. (10:10) There are some other things that are surprising. Let me go back to the people whose immune systems don't work quite as well. So, we know that people who have diabetes, sometimes their immune system doesn't work quite as well. People who are obviously on chemotherapy for cancer or take other drugs that suppress their immune system, we don't have any data on people living with HIV, but we are assuming are more at-risk, but we don't really know. There were two things surprising about this virus, one of which you already mentioned. Kids don't really seem to be impacted. When we think about some other virus illnesses like influenza, give you are more harmful or dangerous for kids. Or there's a virus

called RSV, which is very common in kids, COVID-19 doesn't seem to, kids can certainly get it. Kids who are immunocompromised, you have to be very worried about them. But generally, kids don't seem particularly susceptible. There are some theories onto why that is. One of the dominant theories is that there are many other coronaviruses that are not SARS-COV2, which is a specific coronavirus that causes COVID-19, but other coronaviruses out in the world that cause colds. So, kids are more likely to get colds, so maybe they have some immunity because they have likely had a coronavirus in the last year or so, but that is really just a theory at this point. (<u>11:55</u>)

MOLLY: Okay. You were talking about the 6ft distance and droplets and coughing, and then it gets on the thing and then I touch the thing and then I touch my face. I literally have not touched my face as often as I have since I've been told not to touch my face. I will ask, you mentioned the flu and you mentioned COVID-19, how these two things exist. There have been a lot of conversations in press and what we are hearing very loudly, "well the flu! There are more people with the flu! Why aren't we freaking out about the flu?" That's my smart question. (12:37)

BARBARA: That is a great question. My response to that is, it's not pie. It's not like we are dividing our caring up, and it's going to be 360 degrees. We only have this much to care about flu, and this much to care about COVID-19, like we don't have to care about one thing and exclude caring about another thing. I, as an infectious disease doctor, care deeply about the flu. Everybody should definitely get their flu shot. We are still seeing flu in Bexar County. We are also seeing some folks who have flu and COVID-19. And that's not what you want either. So, everybody should get their flu shot. Certainly, a lot of folks who work in this area, are frustrated because we have a lot of flu, and people die, hundreds of thousands of people die globally every year from flu. (13:32) We tend to think, "Oh, you know, it's just flu." If there are clear data that if everybody got a flu shot, then fewer older people would die of flu. So, I do feel very patiently about it. It's not pie. My caring about that does not take away my ability to be very concerned about COVID-19. I think the difference with COVID-19 is that the mortality, the number of people who die out of those that get infected, appears to be higher than flu so far. It is very hard to say that definitively because we don't really know how many people have had COVID-19 because we don't have a lot of testing. We don't have serology that tells us if somebody has been infected in the past. All this stuff that we have for other illnesses, we don't have for COVID-19. But I also think that we have to recognize that this is a novel pathogen. This is a brand-new virus which is scary in and of itself. You know, we've all seen that movie with the virus. So, whichever one of the movies it is, that in and of itself makes this scary. There's a lot that we don't know. With the fly, we have treatment for the flu. It's not perfect. We have a vaccine for the flu, and that's not perfect either. But we have things in our tool belts. With COVID-19, we are making our tool belt as we go along. That's a very long answer to your question. (15:15)

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KIRAN: Oh, I appreciate it. I was just going to say, there's a combination of both knowing that there is so much information that is coming at us in this moment, and it's very comforting to listen to you knowing that you have the expertise that we need to be paying attention to right in this moment. (15:37)

MOLLY: I was just gonna say, you are the person that will get the tool belt! Yes. Yes! (laughs) I feel good about that.

KIRAN: We want your toolbelt to have all of the tools.

BARBARA: I work with a lot of really amazing people who all, I think, that's the thing about this. It's been amazing to watch everybody step up. It's not just doctors by any means. It's public health professionals, nurses, and the maintenance and cleaning crews, and the staffing crews at University Hospital. They all, I don't know how we can get them all a raise, but tax dollars do pay for them. So, they're amazing. There is a huge force of people who are out there responding to this. (<u>16:26</u>)

KIRAN: And also knowing that you're based in San Antonio and sharing that with us. You're in our community saying there are people responding in the ways that we need to be. You had mentioned earlier, you said very specifically, physical distancing. I know that there's an intentionality in saying that. While also saying something that we are really getting right in this moment is community. And we know, we can physically distance ourselves, and it doesn't mean we have to be socially isolated from one another. Even just to be in this space right now and having this conversation feels like community to me. I do want to ask around there's varying levels of physical distancing, right? So, Team SA2020 has been working from home. We are going on our third week. I know, Katrina is also with us from KLRN, working from home. Some folks are not going into the office, but maybe picking up food curbside. Maybe we are going a walk for the park. Is there a recommendation or more context you can give us about the right level of social distancing? I'm sorry physical distancing. (<u>17:34</u>)

BARBARA: So, I should point out I'm specifically not using the term social distancing because I think that's... social distancing... who knows what that means? A term that is out, but we don't really know what that means. The real issue is actually being physically in front of someone. To give you a super concrete example, my parents live in town. They are, I am not going to say their exact ages, but they are both over the age of 65. They have their own health issues. So, when we go to see them, the couple of weeks we have gone to see them, we walk outside, and we stay 6 feet away. I have two smaller kids, and they can be mildly symptomatic or asymptomatic with COVID-19. I am obviously still one of those people that is working out in the world. I don't want anything I could unintentionally do to put them at risk. So, we are socially together, but physically apart. I think what is the right level is a really hard question because we don't know the answer. I think I get worried when people are close together. I feel like we are

all going to come out of this with a very different sense for our physical space. When I run on the Riverwalk, I am now much more aware of... the path is 8 feet wide. (laughs) So, I think generally we should not be close to people. But I also think there is a, who is in our sphere? So, my family is sort of cohorted. We are exposed to one another. There is sort of no avoiding that. We live in a very drafty old house. There's not a lot of physical distance in my family, but my daughter is 14. I'm glad she's thrilled that I'm talking about her on a podcast. But my daughter is not hanging out with all her school friends right now because if she hangs out with her school friends than we go from 4 to 8, and then those people talk to those people, and it's like that game of telephone. So, that you are essentially at-risk, you are at-risk not just from the people you are coming into contact with, but everybody they came into contact with. There's also the could I be putting someone at risk? I could potentially put someone at risk if I am bringing to my family, and my daughter is talking to other people or is physically close to other people, and they're putting their family at risk, and what if they have someone in their family who is immunocomprised, and that spreads from my family to their family? (20:42) So, that's still not a perfect answer to your question, but I think there are ways to think about in terms of physical space, and how many people are you coming into contact with? And how many people are they coming into contact with? So, it becomes this circle model. (21:00)

MOLLY: Yeah, it leads me to the question-

BARBARA: See, the social networks on Facebook it looks like that.

MOLLY: Yes. And then they tell a friend, and they tell a friend, and it's like the whole commercial. There was a question that came out to us on Twitter that sort of speaks to what you're saying. It was the difference between close contact and community spread, right? We are sort of seeing the two differences coming out now in known cases. The spread is happening via the community or close. Can you tell us what do those two things mean? (21:35)

BARBARA: Um, great question. So, generally, close contact is somebody you are within droplet range within a period of time. So, people in my family are my close contact. Community spread, and actually the folks who could really answer this technically, I think this question comes from the community dashboard on sanantonio.gov. If people have not gone on and checked it out. It's amazing. MetroHealth is doing a phenomenal job at just trying to put data out there for everyone to look at and for everyone to share. So, a close contact would be someone in your family, someone that you've been hanging out in an office with, spending lots of time with. Community spread is generally, if I suddenly had COVID-19, that's a bad example because I work in a clinic. If someone in the community has COVID-19 and no one in their close contact circle has it, and they haven't traveled from an area or hopped off a cruise ship, then that's an example of community spread. If someone who has COVID-19, that you can't say this infected person, or it directly came from this person. So, it's a little bit, because the reality is that is also spread in the community. I think originally with the close contact, it was this person came back

from a place... this is theoretical. I'm not describing a specific case. This person came back from New York with COVID-19. Now, their partner has COVID-19. That's a close contact. This other person is diagnosed with COVID-19. They didn't recently travel, and they don't... their bestie doesn't have COVID-19. (23:41)

KIRAN: There's something about you saying, "their bestie doesn't have COVID-19," where I'm like, okay good! That's good! Okay wait... that's a made-up scenario. (laughs) You had mentioned the dashboard, and one of the questions that came through actually from a Team SA2020, Audrey, was about knowing that the known cases of an infection are Bexar County are predominantly men, but 5 of the 6 confirmed deaths are women. What should we make of that?

BARBARA: I also noticed that Audrey. I think it doesn't, when you have a very small number, statistically you are likely to see weird variations. There is nothing actual reflected in the data so far that would make us think that women are more likely to die from COVID-19 than men. In some of the earlier data, men were more at risk for death, but I think that is an artifact, what we would call a statistical artifact. The fact that we just don't have that many people that died yet which is a very good thing. All of this may change. There may be something we don't know, but so far to indicate that women should be more at risk. (25:10)

MOLLY: You're also, we are sort of touching on it, when we are talking about confirmed cases and the dashboard and deaths and known cases, etc. You mentioned earlier that we don't have a lot of testing. Can you talk about testing generally? Why aren't we doing more testing? Where are all the tests? No one ever wants test, and we are now like "where's the tests?!"

BARBARA: (Laughs) I know! As someone who spends my life trying to beg people to get tested for various things, it's very ironic.

MOLLY: I'm ready! I'm ready to be tested. Like, so can you talk about testing and what's happening around that? (25:52)

BARBARA: A great resource for what has happened with testing in the U.S., the New York Times has a great article about testing, including an entire timeline of what happened with testing in the United States starting from December, or really early January. So, I would defer to the New York Times. But I would say that testing has been a challenge. On the positive side, I would say that within weeks, well depending on where you are at the timeline, but the virus was identified, sequenced, and a test was developed really, really fast. That's an incredible testimony to what we can do with modern molecular diagnostics and testing techniques. I think that the challenge has been that testing is a very regulated thing, and there are reasons that tests are regulated. We want tests to be good. We don't want a test that only works a little bit, or only diagnoses half the people that it tests. There are certain things we want tests to do, and

we would like them to be accurate. That being said, it was, it took quite some time for federal regulators to say okay, labs can work to develop their own tests. That I think led to a delay. The other challenge is that this is a brand-new virus. So, being able to mass market tests is a challenge. We don't have a big, "Okay, now this isn't the Willy Wonka Factory of tests." We can't be like make the tests! Let it happen! That being said, I am going to do a brief local brag. So, watching UT Health and University Health System to make our tests that we have in University Hospital now, which gives you results very quickly was amazing. People really came together and worked really hard to get it done. Now, we have testing, and I, for which, am very grateful. I think that it's been tough though because we would all like to have a better knowledge of how much disease there is in our community but getting tests to people and getting results back to those tests quickly has huge challenge. This is the other challenge because it's not just the tests. Actually, think about what has to happen for someone to get tested. You have to have the test. You have to have a person with a mask and an eye shield, and a gown stick a swab... so you have to have the swab, the person, and personal protective equipment... stick a swab in somebody's nose. It's not that bad, I promise. But you stick a swab into somebody's nose, and you have to put that swab in special transport medium. You have to send that swab off to a lab which processes it. And you have to have that lab send the results back. So, every single step on that line requires resources that can be scarce like swabs. Nationally, we have a swab gap, where we are all looking for swabs. I think we've been lucky in San Antonio. We didn't have tests for a while. MetroHealth was very proactive on trying to get tests. Now, we have tests. We have tests from a bunch of different sources. There are a lot of community organizations... Now, Texas MedClinic has stuff, and CommuniCare is offering testing. University Health has tests. MetroHealth is still offering a lot of tests. So, we will get a better idea in the next several weeks about who is, who actually has COVID-19, and I think that if you want a test, sanantonio.gov dashboard, there's a number you can call, and there's actually an online reader that can tell you if you need a test, which can be very helpful. Because you know, it can be well do I have allergies, or do I have COVID-19? This is a very relevant question for San Antonio in pollen season. (30:48)

MOLLY: Me, completely.

BARBARA: So, I think the other thing I've said to a couple of different people and friends is the number of positive cases are going to go up because we are doing more testing. So, we are going to have a lot more cases in San Antonio over the next few weeks. That doesn't mean that all the hard work that we are doing to physically distance isn't working. In fact, it's very hard for us to know, but everything we see from other places shows that it does work. So, Seattle and China have proven that keeping people physically apart does work to reduce the number of cases. So, even though we are going to see more cases in San Antonio, that doesn't mean what we are doing to protect each other isn't worth it. (31:49)

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MOLLY: You talked about scarce resources, and I just want to again, part of having you here and talking to us, is it feels we are getting the facts directly from someone working on the ground doing the thing, so that we're sort of like weeding through the misinformation or loud noises. The other thing that has been taking over the conversation is scarce resources generally. What happened? Our hospitals are overflowing. Does San Antonio have enough respirators when we need them? They turn to a potentially legitimate concern, and I would love for you to address that also. Where are we as a community when it comes to that? (32:31)

BARBARA: So, San Antonio has some huge advantages in that, in our sort of disaster response and our disaster preparedness. So, STRAT which sort of coordinates emergency response and emergency operating systems center, which is sort of city/ county collaboration, they're up. I am definitely not an expert in community disaster response, but they are really experts in disaster response. Their working really hard to make sure that we are ready, and make sure that we know and learn from things that worked and didn't work in communities that already middle of their COVID-19 epidemic because we are only at the beginning of the COVID epidemic, which is hard to say, but that is unfortunately our reality. So, I think that we are trying, there are hundreds, if not thousands of people, trying hard to make sure we are ready. We will be more ready than many communities that were are the beginning of the epidemic because we have a robust disaster response groups, and we are trying really hard to prepare now, so that we will be ready to go. (33:58)

MOLLY: I know that you have to get back to doing your real job. I don't know if I can thank you enough. I feel better, right?

KIRAN: Like getting the information from you and the way you are centering us in community and centering us in the things that we are doing that we should be really proud of as a community is incredibly encouraging.

MOLLY: Before we go, I have to ask. I received a video from a friend. He's six. His name is Emerson. His question is, "why is there no cure for the coronavirus?" (34:41)

BARBARA: That is a great question, Emerson. The answer is this is a new virus. It's only three months old. So, if you think about that, it has only been around a tiny fraction of your lifespan, but we are working on it. So, there are a bunch of medicines. Some of them are known medications, some of them are brand new medications that are trying to figure out if they work against this corona virus. So, there is actually, University Health System and UT Health started a clinical trial March 26th that is a randomized control trial of one of these new agents that directly acts against the virus. The agent is called ramdecibere. It keeps the virus from making copies of itself. So, this is a multisite, 75-site, 744 patient trial, randomized control trial of this new agent, which is the most promising of potential cures for the coronavirus. We are very happy to have the opportunity to see if it works here in San Antonio and be a part of that

discovery process as well. All of this would be a lot less scary if we had effective treatment, and right now we don't have effective treatment. We have a lot that we are doing, not that we aren't doing things for people that are ill. Like I said, for most people, this is not a fatal illness, but we would love to have more tools to help people who have more severe symptoms of COVID-19. I think it's very hard for all of us, especially health care professionals. We do not like losing. We don't like it when we can't help people. We don't like it when we care for people, and they get sicker. So, we would very much like to have more tools. (36:48)

MOLLY: That's a good answer. I'm sure he'll appreciate that because it helped me. (laughs) It helped me, and I'm not six. So, there's that. Barbara, I, we've spoken to so many people on our podcast. We took a break, a hiatus, because we were trying to figure out what to do with it. The fact that you are my friend, and that you are working on this makes me feel like I'm closer to not being sick. I will still physically distance, and yet...

KIRAN: You just got the cure in this conversation.

MOLLY: But I am happy you are my six-foot away droplet friend. I appreciate so much what you're doing. I know you're working with teams of people who are doing so much on this. I am so happy; we talk all the time... In the Community Vision, in San Antonio's Community Vision it says, "we are all responsible for our collective well-being." And never has that been more obvious than right now.

BARBARA: So true! It's tough because these are tough times. This is scary. We have, you know, this is the beginning. So, there are a lot of people who already lost jobs, lost work. There's kids out of school. The impact of this epidemic is profound. It's not going to be done next week. This is probably going to be a month or more of hard work by everyone in the community to try and protect one another. On the other side, it's amazing to watch San Antonians come out and care for one another. It's what y'all do at SA2020. It's what we can all do to protect our families, protect our loved ones. Protect each other collectively. We are all connected. Nothing proves that more than a respiratory virus.

KIRAN: On that note! (laughs) (39:00)

MOLLY: Everything we talked about today including the San Antonio website with the dashboard, we will link.

BARBARA: Yes! It's amazing. If you are worried about whether you need a test, you can use the dashboard or reach out to your primary care provider, but there are a lot of people doing a lot of great work out there.

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MOLLY: Yeah, thank you. Seriously, I know that you are going right back into it, and I appreciate you coming in and talking to us. KIrn.org/thestorygoes is where we will link everything. I feel weird. I'm like, "hey, friend. Thanks so much." And "go be a super badass!" Go do that thing! Thank you for everything that you're doing, and holler six feet away from every person you see today and tell them we think they are amazing. Thank you for doing what you're doing. (40:05)

