We've all learned this new term “social distancing” and understand that we’re supposed to increase distance from one another. What is that safe distance and why is this so important in preventing the spread of COVID-19?

Social distancing – putting 6 feet between you and any other person – is key to becoming infected. That’s the distance droplets from a sneeze or cough can travel. And, at that distance, you’re not likely to come in contact physically, either.

What about long-range mass transportation such as bus lines? Plenty of mention of trains and airplanes but a bus has even more potential for spread due to orders of magnitude, more interactions along the route, deep penetration at each stop along the way. What are your thoughts on that?

TB: My thought is people probably shouldn't be on public transportation. They should be sheltering in place if they have to go to work. Then everybody else should not be on the bus, it should only be those people who have to do that because they're essential. I think public transportation is sort of a great place to get sick.

(QUESTION NOT ANSWERED DURING LIVE EVENT)

If the recommendation is to not use public transportation; what are some viable options for individuals who are required to travel regularly for medical treatments, such as dialysis patients that do not have private vehicles?

Public health is the art and science of preventing disease, share with us your perspective of public health.

JSJ.: Absolutely. That’s a great definition. Another common definition that’s promoted and supported the American Public Health Association is protecting and promoting the health of people in communities where they live, learn, work and play – which I love that. And then the Institute of Medicine defines public health as conditions or activities that ensure conditions where people can be healthy. And these activities include these communitywide efforts to identify, prevent and combat threats to the health of the public. But the way I describe public health is really it’s anything that has to do with ensuring our basic human rights, which are air, food, safety, shelter and water. So, when you think of that broad definition of public health, it really can be related to anything. It’s not just helping the presence or absence of an illness or disease, but it’s that holistic health — emotional or social or physical or spiritual — and ensuring all of these conditions.

TB: I think the important thing for people — especially clinicians and clinician students — to understand is that our patient is not the individual. Our patient is the population. So, you know, when we look at population health, we talk about things like social determinants of health. And we also use what we call an ecological model of health so that we're not just looking at individuals, but we're also looking at all these different layers, including policy, which is one of our core functions. So those are some of the things that we do in public health.
Can you give us some examples of some roles that individuals who receive a public health education play in the community or what they can do in the community?

JSJ: Public health workers are working every day to strengthen communities by preventing illness and improving and promoting health. There's kind of three P's: prevent, promote and protect. So, we prevent the start of outbreaks and spread of disease. One of the workplaces that people are probably most familiar with is health departments, and those can take on a variety of formats, such as with a city or county or a hybrid between the two where they work together to provide services. Another common place is the Centers for Disease Control and Prevention. I think you could find a public health professional in just about any setting. I’ll give you an example. So, I've seen school districts hire someone with a master’s in public health to coordinate policies related to health. That may be their physical activity programs or what they serve in the lunchroom. You’ll also see public health professionals in a variety of settings like hospitals and clinics.

TB: For me, I worked as a public health nurse, and I specialized in public health nursing for about seven or eight years but I after I got my master's in public health. It opened so many doors, and that's when I was first able to work internationally. I worked in Mexico for three years after I completed my Masters in Public Health because they were really interested in that sort of combination of clinical skills, plus you understand population health. You know surveillance and, in my case latrines and water purification. I also think of people in other health professions like veterinarians, physicians and nurses, which is why we have our MD/MPH program, really can benefit from this better understanding of population health. We have several on our TTUHSC faculty that I can think of who have a master’s in public health — Dr. Patti Patterson and Dr. Cindy Jumper —and that makes a difference in how they practice.

LRS: Yes, and I'm aware of other individuals who hold the dual certification with clinical laboratory science and public health, as well as pharmacy and public health so I do think it is a wonderful degree that augments many other professions and does expand their scope of practice.

What role is public health playing in the COVID 19 pandemic?

TB: In normal times, if there were an outbreak, like COVID-19, public health would be case finding by doing a lot of testing to try and figure out how the disease was moving. Unfortunately, in our current situation, we don't have as many tests as we would like. So we're not really able to do that. But, public health professionals, right here in the city, Katherine Wells, for example, the director of our health department, and Dr. Ron Cook, who's our medical health authority, are working every day to give information and to keep track of all of the cases — keeping track of who's testing positive, who's sick, who's in the hospital, etc. So that kind of surveillance is a big part of what we do in public health. Hopefully when we have enough tests, we'll be able to do more surveillance. We know that there are a large number of people who are infected who don't have symptoms. And that's why we have a shelter-in-place ordinance, because people who are not sick can still carry the virus. And so, we're trying to get people to social distance. So, health education is part of what we do as well. It's an interesting time to be in public health right now.

So, you have mentioned the word epidemiology or epidemiologist. Do you want to talk about what that term means and what those individuals are doing in response to COVID-19?

JSJ: Epidemiology, it the branch of public health that investigates incidents or occurrences of certain illnesses or diseases, how they're distributed, and then how we control those diseases. Public health came out of epidemiology, and it has a lot to do with a focus, particularly now with COVID-19. Epidemiologists are working very, very diligently to identify how coronavirus strain began and how it spread.

What is the process when someone tests positive for COVID-19? What is the general process that occurs, all the way through an investigation and notification?

TB: Generally, when somebody tests positive with a reportable disease, they will be asked questions about what kind of contacts they’ve had, where they’ve been, and if they know that they've been in contact with a person who's infected or not. What we get with these community-spread cases is that people don't really know that they’ve been in contact with someone, so the health department begins to investigate the places that they’ve been. And then of course, with this particular illness where people test positive, we’re asking them to stay home if they’re healthy enough to do that. That means that they stay away from other people and treat their own symptoms. If they become really ill, we ask them to call and find out how to get to the doctor or the hospital in a way that doesn't infect other people. So there's a whole lot that goes on at the health department with trying to figure out where everybody's been, how they’ve been infected, are they sick after they get infected, etc.
So I think we’re all hearing a lot of new vocabulary that we’ve not ever heard before through news media and through press releases that are coming out. Can you one of you explain the difference between self-isolation and actual quarantine?

JSJ: Isolation is when a person chooses to do that because they’re keeping themselves away from others. I think that is more of a protective measure for themselves. Quarantine is if you’ve had exposure, or potential exposure and you are asked to self-isolate – usually through a more formal process. The recommended quarantine right now is 14 to 15 days. Isolation is you’re protecting yourself from becoming ill. That’s what we’re asking people to do by saying stay home and self-isolate so that you don’t expose yourself.

TB: You might remember the story of Typhoid Mary, who carried typhoid everywhere she went. She was never sick, but she always got everybody else sick. They finally had to forcibly quarantine her; so, actually the health departments do have the ability to do that. I think they try not to, but it is possible to make somebody stay at home. People were quarantined in 1918 during the flu as well.

Why do you think that there are individuals who are not taking this situation seriously?
TB: Julie and I can both respond to this because we’re both behavioral scientists, but one thing that I wanted to just talk a little bit about is how people perceive risk. I also used to work in environmental risk communication and perception, and this is very similar. Even though this is catastrophic, and if you’re in New York or if you’re in Italy, you can see that it is catastrophic. However, it doesn’t look catastrophic here — yet. And, when it doesn’t look catastrophic people are not as afraid. So, it’s getting people to understand somehow the scary part, without scaring them. We don’t want people to be really afraid, but we want them to be careful. And so part of it is just how people perceive risk. I think in this day and time it’s partly also political. I think some people have a political view about the virus, and trust me it doesn’t care if you’re Republican or Democrat, but those also play into why people do or do not follow the rules.

JSJ: I think partly it is because this is an unknown virus, and we don’t know a whole lot about it. Unfortunately, in the early stages, there is some information that seemed to maybe contradict or that we just weren’t sure about, and so I think that’s created this, “Well, they don’t really know, so we’re okay” mentality. They just don’t understand that it impacts everyone, not just themselves. We tend to underestimate our own personal risk.

What does it mean to flatten the curve, and what do we need to do to take individual responsibility in the communities we live in to flatten that curve?
TB: If a person is infected with the coronavirus, this particular type, they’re likely infecting, at a minimum, three other people if they’re out and about. Those three people then infect three more people and then three more so you can see it’s exponential. And that’s what makes the curve. The cases multiply so fast that it outpaces our ability to have enough hospital beds and ventilators, and so, flattening the curve relates to slowing down that spread. Instead of the sharp rise, of many people becoming sick at once, we get a much slower peak, which allows us to stay below the max number of hospital beds and ventilators, and we don’t see the kind of crisis that we saw in Italy and what we’re now seeing in New York. So, that’s why it’s really important, as we say, to flatten the curve.

JSJ: We self-isolate or we quarantine if we’ve had exposure. But that really is it, and what’s important to understand is that if we stop our measures too soon, everything that we’re doing, it’s going to be potentially devastating. How you flatten that curve is just don’t be around other people.

What effect will shelter in place policies have on the incidence of COVID-19, and why are not all counties in Texas requiring “shelter in place”?
TB: I don’t know why all counties are not doing it. I know people are thinking of the economics of it. It is not good for the economy. On the other hand, having a lot of people sick isn’t good for the economy either. I have a really good friend who is an infectious disease epidemiologist; she said if we could just get the entire world to shut down for three weeks, we probably could get rid of it. But in reality, we just can’t do that. So, what if we can slow it down and get through this really tough period, then hopefully you know it will kind of dissipate.

Is it true that ibuprofen is the best OTC medication to be taking once you suspect you’re getting infected?
TB: No, Tylenol or acetaminophen. Not aspirin, or ibuprofen.
If you have no symptoms but your daily medication regime includes ibuprofen, should one discontinue the use of ibuprofen now?
LRS: I would really encourage you to reach out to your clinician and ask them.

How accurate are the tests?
LRS: The current test that we are using is actually very accurate. It is a molecular essay. And so, we are actually testing for the nucleic material of the virus itself and amplifying that. It is very sensitive and specific. So right now, we feel like while the testing is accurate, our challenges are that we just don't have enough of those tests. There are new FDA approved tests coming out on the market that will be much more rapid and that will allow us to hopefully test larger populations. But yes, we still have some challenges in the arena of testing, but hopefully, within the next couple of weeks that will open up a little bit, and we'll have some other options for testing.

Should you do something if you know someone who has all the symptoms of COVID-19 and is being tested, but their family is still going around town and refusing to quarantine?
TB: I would use my health education skills and try to convince them about the importance of not spreading things around and staying in. Right now, we're not forcing people. So that's why again sheltering in place keeps you from being infected by people who are doing that.
JSJ: If someone knows they have it and they keep going, can they be charged with a crime? I don't think that we're there, but they have done it for other infectious diseases, for example HIV and AIDS. But, it's an interesting point. And I think Dr. Byrd, you know through health, education and ethics, we don't want to publicly shame people. I think, the golden rule "treat others how you would want to be treated" and maybe try to approach it as if they just don't understand and try to give them the benefit of the doubt.
TB: Yeah, just to make sure that they understand they may be putting other people at risk, I think is important.

I heard you can report if you see gatherings a group of 10 or more people. Is this correct?
TB: I believe you can because that's a rule is no gatherings of more than 10 people that came down from our governor and from the mayor. So yes, I think the police would enforce it.

When a person is exposed to COVID-19 what is the typical time frame symptoms will develop? I know people who are asked to self-quarantine for 14 days, but what should people be looking for? Does it take 14 days for you to have symptoms?
TB: Not always. I think the period is anywhere from two to 14 days.
JSJ: We know that it can live in the body even longer than 14 days; but, I think the consensus is at least right now it is about five days when you'll show signs and symptoms. There are also studies that show about 30% are asymptomatic.
TB: Yeah, and actually people who are asymptomatic are still shedding the virus. So that's, again, why we're doing this.

Anything on the horizon that will combat the disease? Seems like even with social distancing, we will all eventually get this dreaded disease.
TB: I think there are things on the horizon. There are people who are looking at treatments that might be effective. There are clinical trials happening now with various drugs, and they're working on a vaccine but that will take about 18 months to two years before its ready to use. But those things are on the horizon.
LRS: At TTUHSC, we have a team of infectious disease physicians who are forming a group, and hopefully they will come under a Johns Hopkins study to start looking at convalescent plasma as a potential treatment. And so, that seems to be very promising as well. We're excited to potentially be a part of that.

It is said that people with underlying health conditions may or will fare less well with the coronavirus. So far though, I have not read data collected from actual patient cases correlating underlying health conditions and deaths. Is underlying health conditions data being collected or is everything happening so fast that this information is unknown?
TB: It is being collected especially in hospitalized patients. So, most of the deaths have occurred in the hospital. So, they are following those folks and know what their other conditions are when they bring them into the hospital. I think the data are pretty good that being over a certain age, being elderly and having preexisting conditions make this worse for you, which would be true of almost any virus, actually.
I work at a retail pharmacy. We don’t have access to proper masks, we all use cotton mask with some layers of tissue. Is it helpful at all?

TB: I think if you’re a health care provider and you’re working with people who have this disease, then you need something more than a cough mask. You need an N95. For people in the general public, if you are sick a cloth mask might be useful, at least to contain droplets. But I will say WHO and CDC are going back and forth about whether they think the general public should wear masks, and they haven’t come to a conclusion yet about that. So, we’re waiting to see.

LRS: Everything I have heard is that a cloth mask is actually to prevent you from spreading the disease, and that the N95 prevents you from contracting the disease. There is a difference in those two type of masks. I think the feeling is that maybe something is better than nothing but we certainly don’t want to give any false idea that protects one from getting the disease.

NOTE: The CDC as of April 6 recommends the general public wear cloth masks: https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cloth-face-cover.html

My son’s roommate, who lives in New York, tested positive. My son was not tested before because there are not enough tests. It has been over 14 days, the roommate is feeling better, and my son does not show any signs of illness. Does that mean he is immune?

TB: His roommate may be shedding the virus a lot longer than 14 days, even after he feels better. So, it doesn’t mean your son is immune. In fact, he may still become infected. He also could be asymptomatic. I don’t think any of us at this time are immune.

Questions not answered during Town Hall – pending answers:
How can we return to work (if and when the times come) if there is not a cure?

Dr. Rice-Spearman answered this question in the April 7 Town Hall.

It’s really still too early in the process to accurately answer this type of question; when do know answers, we will give them. We do have a team that includes infectious disease specialists and an epidemiologist working on modeling, that will give us insight into best case or worst case scenarios about what returning to work looks like.