

CDC Private Sector Call – Update on the COVID-19 Disease

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Janelle Gunn: Hi, good afternoon. My name is Janelle Gunn and I'd like to welcome you to the CDC partner and private sector call, an update on the COVID-19 response. We would like to thank you for all that you're doing to help protect your employees and communities during this unprecedented time. This call will be recorded and later posted to the CDC COVID website. This call is not intended for media. Media can direct questions to media@cdc.gov. Before we begin, I would like to remind call participants that the CDC COVID website has the latest information guidance and communication resources.

Just since this call last week new documents include general business, frequently asked questions, meat and poultry processing, workers and employers, COVID-19 guidance for shared or congregate housing an interim guidance for employers with vulnerable workers. So if you haven't seen those things, go check them out. Today's call is part of a series of calls to help keep you informed about the COVID-19 response and to hear and respond to your questions. Thank you in advance for those who sent questions. We batch these questions and look for common themes and common questions. So our plan today is to hear a situational update from the leader in our response, Dr. Jay Butler, and the preview discussion on return to work guidance from Dr. Kathleen Ethier. And then we will do some Q and A based on questions received.

So I'm so pleased to be joined today by Dr. Butler and Ethier. Dr. Butler is the Deputy Director for Infectious Diseases. In this capacity he provides leadership to the efforts of CDC's three infectious disease national centers and helps to advance the agency's cross cutting infectious disease priorities. And Dr. Ethier currently co leads the Community and At-Risk Task Force in CDC emergency operation center COVID-19 Response. When not working on COVID she directs CDC's Division of Adolescent and School Health and the National Center for HIV AIDS, Viral Hepatitis, STD, and TB prevention. I'll now turn it over to Dr. Butler to provide a situational update.

Dr. Butler: All right. Well, thank you, Janelle. Good afternoon everyone. Thank you for joining us again this week and if you're a first timer, thank you for caring and joining us to talk about this really incredibly important issue as we continue as a country and indeed as all of humanity around the world to negotiate our way through this pandemic. So over the past week, we have been able to see continual flattening of the curve in the United States nationally. Meaning that the number of new cases diagnosed every day is not continuing to increase, but it is still on an upward trend. So I think as we talk about mitigation and rolling back of the various restrictions around the country, it's important to remember right offhand that this is not something that should be rolled back all of a sudden. It would be a bit like skydiving, then we've got from terminal velocity to maybe 10 feet a second, something that will be able to hit the ground without getting hurt. And thousand feet in the air, we say, "Well, we seem to be going slow enough now and slipping out of the harness."

So it'll be more of a gradual descent and it'll be a controlled descent. And it will be variable across the country. And it will also be phased recognizing that ideally there'll be things that are loosened up and then a little more depending on what we learn based on the number of cases that are diagnosed, the amount of disease that's occurring, and the capacity of the healthcare system. As we look around the country, there's a significant amount of disease continuing in areas in southern New England, in the Middle Atlantic area of New Jersey, Delaware on down into DC. Number of places across the south, in the Midwest, and then the Four Corners area, particularly seeing quite a bit of disease. As we look at the count, we're closing very close to a million confirmed cases in the United States. And unfortunately, over roughly 54,000 people have lost their lives to COVID-19 thus far. We do believe that the case counts are an underestimate, and I will say more about that in a moment. But first, I just want to say that we are seeing a little bit of a shift in the epidemiology in that in many areas, the number of cases that are occurring are being driven by clusters that occur in specific situations. There are a number of outbreaks that have occurred over the past two weeks in meat and poultry products processing plants in the Midwest, in the Rocky Mountain states and more recently also on the Delmarva Peninsula, in Delaware, Maryland and Virginia.

We've also seen outbreaks in homeless shelters and continue to see some outbreaks occurring in jails and prisons. Some of the common denominators in all of these situations is close crowding of people, particularly for prolonged periods of time. And it takes us back to some of the earliest discussions of the epidemiology as we were tracking the spread of the pandemic out of Wuhan and Hubei Province into other parts of China and out of China into other parts of the world. Where it was clear that the highest risk of transmission was among people living in households where someone was infected, and particularly if that person was symptomatic. We continue to explore some of the issues around over representation. Later this week, we should have a initial report of deep dive into some of the risk factors related to severe illness among people who are hospitalized with COVID-19 in Georgia. And that will give us more clarity in terms of some of the risk factors venomous that have been observed that account for the higher rates of disease among African-Americans.

There's also been a paper from the VA recently released a review of a cohort of over 2 million vets who, age 54 to 75. And this particular study recognizing these are veterans and it may not be generalizable to the general population, but in among these veterans, African-American vets were more likely to be diagnosed with COVID-19 but did not have more severe illness. We're also seeing a number of cases on the Navajo Nation in the Four Corners area. This is an area where the prevalence of running water and ability to perform hand hygiene is less than in other parts of the country. And so, CDC Indian Health Service working closely with tribal authorities there to be able to address that situation and also to be able to get care to where it's needed. I think again, a common denominator that we may be seeing among some of the inequities in terms of rates of disease may be related to socio economic status, and access to housing that allows for better social distancing. As well as the types of jobs that are much more difficult to perform by telework. Finally, as we learn more about the epidemiology of this disease I

mentioned earlier that nearly a million cases laboratory confirmed is a underestimate. CDC and a number of other areas have been digging into using serology as a way to assess the prevalence of exposure to the virus.

There was some preliminary results that came out of New York looking at prevalence of antibodies to the SARS coronavirus-2 to the virus that causes COVID-19. Overall, there was an observation of 14% were positive and 21% in New York City. And this confirms some of what we were suspicious of over the past month or so that there are a number of people who become infected and have minimal symptoms and would not necessarily present to health care and have a confirmatory diagnosis. This certainly creates some challenges in being able to control the spread of the virus. But it also reinforces the importance of social distancing, as well as the facial coverings. As we discussed on an earlier call, one of the things that we've learned over the past six weeks is very different about SARS coronavirus-2, as compared to the SARS virus is that people have the highest viral loads as they become ill rather than later in the course of the illness. And we have confirmation of transmission from people prior to the onset of symptoms and very strong evidence even the people who develop no symptoms at all maybe capable of spreading the infection.

As we work with our state partners, also, we know that these are the people who are the boots on the ground around the country at the state, local and tribal level. And we continue to work to get resources both in terms of funding and personnel out to these partners. And I think I'll stop the situation update at this point. And it's my great pleasure to introduce Dr. Kathleen Ethier, who will give us a little more specific guidance on what it means for businesses to be able to reopen and support returned to work, Kathleen.

Dr. Ethier:

Thank you so much, Jay. And thanks to all the partners who've joined us on the call today. We really know that these are uncertain times and very much value the role that business partners play in supporting the nation. And so I just want to start by thanking you for all that you're doing to keep your community safe and healthy. On April 16th the White House released a framework for reopening America. And these new federal guidelines take a state specific approach and a phased approach to reopening based on the use of data and evidence of health system capacity. As part of this framework, CDC is working on guidance specific to where people live, work, learn and play, in order to help communities reopen as safely as possible during this time. CDC, along with other federal partners is continuing to work with state, local, tribal and territorial governments across the US as they determine when to adjust community mitigation efforts.

The White House Task Force has outlined a three-phase approach to reopening America. To prepare for moving through these phases all communities should be building and maintaining a core capacity to respond to and manage COVID-19 ensuring that they have the foundation of preparedness before lifting mitigation strategies. Particularly if a community has experienced significant transmission and health system strain. The core capacities needed for a community to begin considering the phased approach to

reopening include testing and contact tracing. So that communities should be able to quickly set up safe and efficient screening and testing sites for symptomatic individuals and trace contacts of those with COVID positive results.

They should test syndromic person I-indicated persons for COVID-19 and trace contacts with those with COVID positive results. And they should be able to ensure sentinel surveillance sites are screening for asymptomatic cases and contacts for those with COVID positive results are traced. And so all of those contesting and content tracing capabilities need to be in place in order to understand whether or not you could, as Jay mentioned, break up clusters should you find them. In terms of healthcare system capacity, healthcare systems in the community should be able to quickly and independently staff and provide critical medical equipment and supplies including PPE and be able to surge ICU capacity should cases increase. There should also be robust testing programs in place for at-risk healthcare workers, including emergent antibody testing that Jay discussed. And then there also needs to be the development of plan specific to community needs, so that communities have access to preparedness plans. And they know how to develop a detailed plan that will help them protect those who are most vulnerable, including the highest risk community members, protect the health and safety of individuals with underlying medical conditions. Protect the health and safety of workers in health care and non-healthcare settings and protect the health and safety of those living and working in high risk facilities like senior care centers and group housing and some of the other sectors that Jay mentioned.

They also should be prepared to continue to implement strategies that promote everyday preventive actions including staying home when sick, promoting hand hygiene, increasing cleaning and disinfection, and continuing to social distance and use cloth face coverings. But as we open being able to also monitor conditions and immediately take steps to limit and mitigate any rebounds or outbreaks by restarting a phase or returning to an earlier phase depending on severity is extremely important. As Jay mentioned, CDC is already providing support to each tribal, local and territorial jurisdictions on their response to COVID-19 and will continue to support them in the following areas, including providing virtual trainings on contact tracing, case investigation, infection prevention and control, sending field teams to assist in investigating outbreaks and communities in congregate settings, identifying and disseminating best practices for infection prevention and control and supporting digital platforms to support large scale contact tracing. They'll be developing health communications to support effective mitigation, developing guidance documents and decision tools for different settings, providing data analytic tools and reports and administering a call center for clinical inquiries 24 7.

Currently, CDC has over 1500 staff embedded or deployed across all states and territories. And in the coming weeks or months, we plan to stand up the COVID response core in partnership with our federal and private partners to enhance frontline public health capacity, including the ability to support intensive contact tracing in state, local, tribal and territorial health departments to intensify our coordinated response. And with that, I'll stop and we're happy to answer any questions that you might have.

Janelle Gunn: Sounds great, thank you. So I'll sort of ask some questions or maybe you too can decide amongst yourself who wants to take the question. So the first question here is about sort of summertime it's not about summer camps for children or If you have a retreat center, like those types of things, and you had talked on social distancing and protection in that environment.

Dr. Ethier: So first I would suggest that you be in contact with your state or local health departments so that you can have an understanding of really what phase you're at. So where you are in terms of the progress of cases. Where you are in terms of your community's ability to manage clusters of cases and your healthcare system's capacity to manage increases in cases of should they occur. Second, then we would, I think the next question is how able are you going to be to maintain social distancing and some of the personal practices, the hygiene practices that we mentioned? So are you going to have the ability to teach kids and help kids hand wash, protect against, you know, protect their clothes? Are you going to be able to space them and try to manage six foot distance wherever possible? We understand with kids that's not always possible. And we are working on guidance to help anyone who is running camps to be able to do that safely in locations where that's possible.

Dr. Butler: So Kathleen I'm going to actually ask a question, does that mean I can send my kids to camp in British Columbia this summer?

Dr. Ethier: We would prefer that you not send children from areas that have high rates of disease to areas that have low rates of disease and vice versa? So, what we would like to suggest is that camps are maintained locally. Or that if you are traveling to a camp that you're traveling from a low incidence area to a low incidence area. Thank you for that question.

Janelle Gunn: Keep it local, if you can. So there's some questions here about you know, do they have adequate testing and then antibody testing for either return to work or to know how the environment changes.

Dr. Butler: So we continue to work with states to ramp up the testing capacity. And we actually have very recently received literally from all 50 states as well as New York City and LA County, very detailed analyses of what their local capacity is. So we're putting together a much better picture of what that capacity is. It still doesn't solve some of the challenges we have with the global supply chain of the various supplies. Everything from reagents to the swabs that are used to collect the specimens, the transport media that is used in shipping, as well as some of the laboratory supplies that are fairly standard. But there's much work going on to be able to increase the availability of those things. So I don't know that I'm ever going to be able to answer that question to say it's there's as much as I hope there's going to be but every week, it seems like the capacity is higher than it was the week before. So the progress is frustratingly slow, but it is making significant progress. And certainly want to give a shout out to our colleagues at the FDA in terms of the work that they've been doing to be able to issue the emergency use authorizations that are opening up more possibilities for diagnostic options.

Regarding antibodies, both Kathleen and I mentioned that. And I wanted to make a couple of points about antibody testing. First of all, of the antibodies that are developed during the course of infection don't really appear until the second week of illness. And in otherwise healthy people, it may very well be that the antibodies start showing up about the time that the viral load begins to drop. And those two things are probably related. But the full antibody response and really high rates of detectable antibodies at the population level, we're really getting out to the third week of illness. So it's important to recognize that antibodies are not a good way to diagnose acute infection. But what they reflect is that someone has had exposure to the virus. Which leads to the second caveat in the antibody testing, is that at this point in time, the science doesn't prove that those antibodies are protective. And in fact, we know just generally, some of the early antibodies that are produced the IgM class of antibodies oftentimes are not as functional as the later IgG class of antibodies. So, at this point in time, we cannot say that a positive antibody test is a proof of immunity. And this is a very hot topic for research. Because certainly we recognize that if an antibody test could be proof of immunity that could be very useful as a way to get people back into the worksite. And particularly to support healthcare workers who are the highest risk of exposure to people who are infectious.

The third caveat is there's been, I think quite a bit in the media about this over the past several days, is that the quality of the antibody tests appears to be somewhat variable. And so there's been a lot of work with CDC, NIH, FDA and also work by academic partners to be able to assess the quality of the various antibody tests so that there could be a buyer's guide in terms of which tests are going to be most useful for determining who has actually been exposed and who hasn't. And before we leave diagnostics, we'll add one more thing. I think over the next month we're likely to start seeing antigen tests. These would be -- these different type of tests.

Most everything that we've used so far for diagnosing COVID-19 have been based on polymerase chain reaction or related types of nucleic acid tests that detect parts of the RNA genome of the virus. Antigen tests instead would detect certain surface components of the virus. And I know I've spoken with a number of companies that are working hard to bring a test like that to the market. Which I think will help achieve our goal of getting the tests out through the health system, to the hands of providers and patients in the most remote places as quickly as possible, which will again be an important part of increasing our testing capacity.

Janelle Gunn: I have a few questions here on will the CDC be issuing additional guidance and they're kind of twofold either for particular sectors? And then the second kind of part of that is general office guidance, like no touch doors or spacing of desks, that type of thing.

Dr. Ethier: Well, we provide already a great deal of guidance that businesses, workplaces of all kinds can use to help them really continue to use social distancing in their offices. We do recommend that to whatever degree possible, people continue to telework. Because that's really the best way of social distancing is to not physically be in the same place. So to whatever degree you can maintain telework, we would recommend that you

continue to do that. As businesses start to reopen and people return to workplaces, we would recommend that you still continue to try to maintain social distancing wherever possible. So that means in your breakrooms, that means in your cubicles, that means in your office settings and it means in your meeting rooms. We're all right now in the same place and we're doing our best to stay socially distant. We're all looking at each other in the room to make sure we're 6-feet apart and to also continue to do things like wearing cloth face coverings, to continue to do proper hand hygiene and to protect your coughs and sneezes. So, I think whether new guidance comes out by phase or whether we continue to talk about the kinds of things we've been talking about all along, which is doing your best to socially distant doing your best to maintain hygiene practices. We would ask that you continue to do those things.

Janelle Gunn: Another question about work related travel and you imagine that opening up and any kind of recommendations in that area.

Dr. Ethier: I think our Travel Task Force will be likely continuing to talk about travel. I think, you know, we would as we've talked about with camps, we would recommend that people from places with continuing high incidents not travel to places with low incidents and vice versa. So local travel will likely as stay-at-home orders are lifted, local travel will likely resume. But we do recommend that you stay local so that you know if you are in a place where there is continued transmission, you're not taking that someplace else. Or if you're from an area with low transmission that you don't go to a place of high transmission and then bring it back.

Janelle Gunn: We have a two-part question, again. What more do we know about asymptomatic whether the amount of transmission is done asymptomatic or the proportion of cases that are asymptomatic? And then that will go to the question we've answered a couple of times, but temperature screening of employees.

Dr. Butler: Sure. So let's start with that question of what proportion of people who are infected develop no symptoms at all? We really don't know. There are some studies that have suggested it's about a quarter of individuals. There was a very nice study out of Iceland, that found that at the time of swabbing about 47% of people who were swabbed and had a positive swab did not have symptoms. That did not follow up to see if they subsequently developed symptoms as I recall. In one of our nursing home investigations, we found that there were a significant number of people who did not have symptoms at the time that they were tested and were found to be positive, but the vast majority of those people did develop symptoms over the next several days. However, we also found that it was possible to even have a positive culture meaning viable virus that could be recovered in culture, not just nucleic acid bit as long as six days before observable symptoms had occurred. That's maybe a bit of an outlier. But the epidemiological data certainly also supports the fact that people may be infectious very well, two to even three days before they become sick. What was the other half of the question?

Janelle Gunn: Temperature screening.

Dr. Butler: Oh, temperature screening. I've actually I've got both a wristband and a sticker on me today because I've been in two federal buildings that do screening for both symptoms as well as temperature checks. So I think the important thing to know about temperatures is that if someone has a fever they should not be in the building. And that's probably a good policy not just during the COVID-19 pandemic. But it's important to also know that it's very common for people with COVID-19 particularly early on not to have a fever. So it's not by any means a failsafe measure.

Janelle Gunn: With space and businesses opening up more sort of rolling back their mitigation strategies, do you imagine sort of more guidance or recommendation of uptake of cloth face coverings and both for employers and for customers.

Dr. Ethier: You know, we've been really heartened by how quickly the use of cloth face coverings has increased. We've been watching the data carefully. And there's a variety of different surveys that have shown that people have really taken it on. And we are really appreciative of that. And we would continue, for the time being recommending for both employees and people entering businesses that they work with face coverings.

Janelle Gunn: We have a question here that guidance for employers is coming from multiple levels of government, from federal, state local. Whose guidance should be followed?

Dr. Ethier: Well, I think you know, we at CDC tried to provide broad brush strokes. We try to try to provide guidance that applies to as many different settings and different types of situations as possible. We also recommend that you attend to your state and local public health orders and guidance around kind of level of mitigation. So they're going to know best what's happening in your local jurisdiction to the level of disease you have, community spreads that you have. And then also the capacity of the public health system and the healthcare system to be able to handle cases as they arise. And so the level of mitigation that you have -- so how many of you think -- you know what level of opening you're at really depends on those local factors. So in terms of what you can do in your business, in terms of keeping your workers and your customers safe and healthy, you know, certainly our guidance will help you do that. But the level at which you should do that should be driven by what's happening in your local community.

Janelle Dunn: And the question about water and any concerns about transmission and water or wastewater?

Dr. Butler: This is Jay Butler again. So let's actually talk about what we know about transmission. Everything continues to point towards respiratory droplets being the primary mode of spread, meaning that the droplets that are produced when you speak or cough or sneeze contain the virus and be spread people around you. In general, those droplets are going to be onto the subject of gravity and they will fall out after a distance of roughly six feet or so. And that's very different than airborne spread, which occurs in an infection like measles where the virus actually becomes airborne and can spread throughout an area, even room to room. It doesn't mean that airborne is impossible, but we're just not seeing as much evidence of that as we continue to learn about this virus.

The big situation where we worry about airborne spread is in health care environments where people have procedures before that may potentially aerosolized body fluids. The other area of concern and we certainly have seen it with other Corona viruses, particularly the SARS coronavirus is contamination of surfaces. And that's why hand hygiene is so important. Because the hands can become contaminated by surfaces. The hands oftentimes go to the face, which is why we also advise to try and avoid touching your face. And that can then inoculate the eyes or the nose or the mouth and potentially lead to transmission of the infection. There is not a lot of evidence of transmission through stool.

I know, at least one tabloid in the UK got a lot of coverage by someone speculating that COVID-19 could be spread by flatulence or to quote the headline by farting. There really is not a lot of science behind that. We do know that the RNA of the virus is shed in stool, but it has been very difficult to actually recover a cultural virus from the stool. So even though stool may contain the genetic material, there are some evidence that the virus may be able to reproduce in parts of the gastrointestinal tract. We do not believe at this time that stool or then wastewater are sources of transmission or sources of infection. It does raise the intriguing possibility, though that wastewater could potentially be monitored for the presence of the RNA as a marker for whether or not it's in the community. And that's if you're new to public health, that may seem really odd, but that's actually a practice that's been done for literally decades to look for reemergence of polio viruses in parts of the world where polio has been eradicated. So it's an excellent question. I think the bottom line at this point in time is we do not think that stool is a likely mode of transmission. And that the PCR positivity may be actually useful diagnostically. But it is not reflecting that there's likely viable virus in the stool. But rather it's shreds of RNA that are from higher up the alimentary canal.

Janelle Gunn: Okay, so next question might be an opportunity to share a little bit about the data. So it's questions about, you know, how do states know their data? Or if you're more a big state can you know at the county level or otherwise? What can we hear about available data?

Dr. Butler: Well, I would encourage you to do a couple things. One is the visit [cdc.gov/covid-19](https://www.cdc.gov/covid-19) to see some of the national trends and as well as and also state data. And we're in the process of being able to increase the granularity of that data to give more of a view down to the county level. A number of states are now providing that through your State Health Department website. One that I'll give a shout out to is the Florida Department of Health has provided some very nice visibility of the status of the epidemic and the number of cases diagnosed at the county level.

Janelle Gunn: Somebody notes that recent sort of guidance indicating a possible waiting 24 hours after a known employee has tested positive for COVID before you might clean their space. And if you can talk a little bit more about the rationale behind that.

Dr. Butler: Yeah, that's really to address the theoretical concern about the -- actually I shouldn't say even theoretical but to address the issue of virus in the environment, particularly on surfaces. The virus in general, you should think that it survives for a period of minutes,

in some situations, hours, depending on the type of surface. And this would just provide a longer period of time for the virus to die on its own. We recognize, though, that that's not going to be possible in all situations. So it's a step that can be taken as part of mitigation. But, for instance, in healthcare environments, the better course is to be able to clean and disinfect after each patient encounter. Because we can't afford to shut down every hospital bed or bay in the ER for 24 hours after every patient has passed through.

Of course, there's been more discussion in the past week about survival with a virus in the environment. I've not -- to be honest, I'm not sure how much of that is really new. But there's been some work done by both academic partners CDC and NIH, looking at survival of the virus in the environment. I think in general, think in terms of minutes to hours, it's going to survive better on hard surfaces as opposed to cloth, stainless steel may be the best situation for it to be able to survive. It also survives less well in hot and humid conditions. And in fact, that's why we often haven't stored viruses in deep freezes. Because that is a way that they can remain viable. And much ado has been made about the role of UV light, but that's also something that's been known for quite some time that the majority of viruses do not survive as well after exposure to UV light. The challenge of course is getting the UV light to all the surfaces that might potentially become contaminated. So while there's -- I'm sure there's going to be a lot of vendors touting UV light based modes of disinfection, it's important to recognize that there are areas where the light don't shine.

Janelle Gunn: And any thoughts or perspectives on food plants, poultry or meat processing plants? And is there additional environmental monitoring or actions that should be taken?

Dr. Butler: Well, the most important steps for these food processing plants is to be able to make sure first of all, just as we were talking about all businesses, in particularly work settings, to be able to screen so that people who are symptomatic are not coming to work. And that may involve creating appropriate incentives to not work while sick including making sure that sick leave is generous so that people will not be tempted to come in when they're sick. Also, providing the appropriate distancing between individuals is important. Having the ability to do hand hygiene is important. Promoting use of cloth face coverings is important. And also being able to provide the ability for people to leave if they become sick during the course of a shift.

Janelle Gunn: There's some of maybe some new symptoms or non-symptoms for COVID?

Dr. Butler: Yeah, so, one of the observations that's a little bit unusual, but not terribly common with COVID-19 is the loss of the sense of smell and the reduction in the ability to taste. If you're really interested in the medical terms, anosmia and ageusia. And these are not necessarily specific to COVID-19, but they are somewhat unusual symptoms in general. So some people have added those to their screening criteria. But those are not terribly common symptoms of COVID-19. But someone who suddenly is noticing they're having trouble with the sense of smell or taste, that may be a red flag and a reason to be tested for COVID-19. And not to come into the worksite. We don't have a lot of data in terms of

how useful that is as a screening tool. In reports of case series in general -- in most of the series I've seen less than 10% of patients report that as a symptom.

Janelle Gunn: Can you say more about contact tracing and the role that might play with return to work?

Dr. Butler: Yeah. So, particularly, as we look at areas where not only is the curve flattened, but the number of cases each day has continued to decline. One of the measures that can be taken to help avoid a sudden increase again, is not only diagnosing cases when they occur, but doing everything that is can possibly be done to identify people who have been exposed to that person during their infectious period. And then people who are exposed should be self-quarantined for 14 days after that exposure. And we continue to review the data to see if that can be shorter period and as of yet, we have not found reassuring evidence that shorter period is useful. You know, that's a topic that we haven't talked about much in the past month because almost all of us have in stay-at-home orders have basically been self-quarantining anyway. But that as things begin to loosen up again, we'll once again become more important, so that people who are sick or proven to be infected with COVID-19 are self-isolated. And people who are exposed are self-quarantined.

Janelle Gunn: Any thoughts and recommendations about either high touch areas or common space in your isn't worksite? So like use of an elevator, escalator, doors, that kind of thing?

Dr. Butler: Yeah, so a couple things on that, first of all is maintaining social distancing as much as possible, and I don't know that there's necessarily a convention on that, but still, if it's possible to maintain six-foot distance, that's fine. I've been on elevators in the past 72 hours in buildings that have said anything from only one person on the elevator at a time to no more than three people on the elevator at a time. So, but that does help encourage social distancing. In terms of high touch surfaces, it's important that those be cleaned and disinfected, at least daily, if not more often, if that's feasible. And when we're talking about escalators, that's one that may not be natural to social distance. But it's important again, to be able to separate from one another, ideally, at least six feet. I noticed an escalator that I was on recently there was a recording encouraging everyone to face forward and to hold the handrail. But maybe that's a rule that we should suspend. If you're able to stand on an escalator without touching the handrail. It's probably better to touch as little as possible during these times.

Janelle Gunn: This concludes our time today. Any closing remarks?

Dr. Butler: Yeah, I just want to also point out how important the mental health of employees are. This is a stressful time. As I mentioned earlier, we're approaching 55,000 Americans who've lost their lives to COVID-19. And, you know, just thinking through our team here I know of two people who've lost relatives to COVID-19. And our condolences really go out to everyone who's been impacted by the death of a family member or a friend or a loved one by this pandemic. But it, I think, highlights the importance of if you have an employee support program to make sure that there is grief counseling available to

employees and that appropriate grief time is available for people who've lost loved ones.

We still have a ways to go in this pandemic. I wish I could say it's all going to be over in a couple of weeks. But even looking at New York City, and if these antibody tests are confirmed in 20% of people have already been exposed, that still these 80% of the population. Even places heavily impacted is New York City who are susceptible. So we have a long way to go with this. But I know that working together, we can do it not only to maintain health, but hopefully be able to get the economy going as well. Thank you for the chance to speak with you today. And thank you for the great questions.

Janelle Gunn: Thank you. Thank you Dr. Butler and Dr. Ethier. She did have to leave us here at the end of the call. So she's not giving any closing remarks but really appreciate appreciated the opportunity to talk to you all about forthcoming guidance. So, thank you.