

Please stand by for realtime captions.

---

Hello, everyone. We will get started in about seven minutes.

---

This is the final audio check. We will get started in one minute.

---

All right. We will go ahead and get started. I want to welcome you to our webinar, overview of COVID-19 and CDC's response to the pandemic. My name is Jamie Hayes. I am the host for today's event. For our presenters today we have Joanne, a medical doctor. She's the chief science and medical advisor at the Centers for Disease Control and Prevention office of science. She's the CDC research integrity officer. She has held many scientific leadership positions across the agency including in the office of infectious diseases, the office of terrorism preparedness and emergency response, clinical communications and the national immunization program. An epidemiologist and board certified pediatrician she has earned her medical degree from the State University of New York at Buffalo and completed her residency training at Children's Hospital of Pittsburgh. She completed a community pediatrics and Child advocacy Fellowship at the Albert Einstein College of medicine and a genetic epidemiology Fellowship at CDC. She has Masters of science and international health from Johns Hopkins University school of hygiene and Public health and advanced training in facilitation, negotiation, diplomacy, and public engagement. As a visiting faculty member for the University of Khartoum and Estonia she taught pediatrics and epidemiology. Our other presenter, Martha, is a librarian at the Stephen B. O'Connell CDC library. She came to the CDC after working in a variety of hospitals, academic and medical libraries. She helps fulfill the position of advancing science health and medicine through information in order to protect the health, safety, and security of the public. Those are our presenters today. Before we get started I will walk you through a few housekeeping reminders. If you have any questions you would like to ask the presenters are you have any issues please feel free to use the chat box which is located in the bottom right-hand corner of your screen. If you have any technical problems my colleagues will be helping you out. They are the tech support for today's webinar. As for questions that you may be asking, make sure you are asking to all participants and I'm going to be keeping track of all of the questions that come in and at the end of the presentation we will respond to each of them. We are recording today's session and we will email a link to the recording and slides to everybody who registered for this webinar. We will also be sending you a certificate of participation is in the email that he is to register for the webinar. If anybody needs at the additional certificates because multiple people are watching please email and include the title of today's webinar including the name and email addresses of those meeting certificates. You may zoom in on the slides being presented. There's a full-screen button on the bottom left side of your screen. You kiss the mouse over the blue bar to expand and click on the blue return button to get back into full view. Finally, at the end of the session will be sharing a webinar satisfaction survey. We will let you know when the URL is available and it will appear in the chat box. We appreciate your feedback after the session including comments on the presentation style and the value of the webinar. Without being done I will hand the microphone over to Joanne who will take it from there.

---

Thank you. Good afternoon everyone. Thank you to Jamie Hayes and to her colleagues for inviting CDC to present to you today. I hope that you and your loved ones are well as we all navigate these uncertain times. Like many of you my colleagues are teleworking and hopefully the Internet will stay stable for this. Today I am coming to you from my home in Athens, Georgia I just want to say thank you to the University of Georgia public library and thanks to all of you for participating today for the work that you do to bring information to the public. I am really thrilled to be here with you. Finally, thank you for the questions many of you submitted in advance. We have tried to work many of them into today's presentation and we also have some late breaking news to share with you. Thank you a bunch. I will kick us off with a little bit of background about coronavirus and events at CDC and then I will turn it over to Martha. First, let's talk a little bit about coronavirus in general. They are a large family of viruses that cause respiratory illnesses. They are part of the family that was first isolated in the 1950s. The coronavirus is get the name for the crown like spikes on the surface of their figures and there are four subgroupings alpha, beta, gamma, and Delta. You can see in this electron micrograph this little ring of particles around the exterior of the virus and that is the crown looking feature. Some of these viruses can spread between and among animals and people. We call those [Indiscernible] viruses. Some cause mild illnesses of the upper respiratory airway but the ones that we are going to focus on can cause serious illness in the respiratory system such as pneumonia. These are in the Veda beta subgrouping of the groups that I mentioned. The first I would like to introduce you to is the SARS virus which causes severe respiratory symptoms. Any of you know about this virus. It was first identified in an outbreak in November 2002 in China. It went on to spread through 29 countries around the world causing more than 8000 cases and 774 deaths. There was significant person-to-person spread which means that people spread it easily from one person to another. Fortunately there have been no known human cases since 2004. Here is a micrograph of the virus. You can see the little particles around the periphery that are the crown. This little critter in the bottom photo is a cat. Not really in the feline sense but more socially related to the mongoose. This is the animal that was suspected as being the one from which the virus leapt from animal to human. These animals are frequently traded and sold in animal markets in close quarters with one another. The next virus and syndrome I would like to introduce you to his Middle East respiratory syndrome virus or the murders. This virus arose in November 2012 in Saudi Arabia and went on to spread to 27 countries. There were more than 2400 cases worldwide with more than 850 deaths. This virus had limited person-to-person spread although it seemed to cause a more Seville severe illness than SARS. Again, you can see the virus here with the crown surrounding it and in this case in the Middle East respiratory syndrome it's believed that a camel was the animal from which the virus leapt to humans. So now onto the star of the day. The COVID-19 pandemic and the emergence of the virus that causes it. The virus was first identified in Wuhan, China, in December 2019. Is caused by the virus. Early on many patients were reported to have had a link to a large seafood and live animal market in Wuhan. As the outbreak expanded, more patients were found to not have exposure to the animal market. For epidemiologist that sets off alliance and we realized it is spreading from person-to-person. First we noticed travel related cases and other countries. The first U.S. case was documented in January 21. This was a person in Washington state who had traveled to Wuhan, China. There are some investigations going on now to see if we can identify cases that might have come in even earlier that we were not aware of because it takes a serious

illness to come to an attention Martha will share a lot of information about that. Here is one picture from our website where CDC reports the numbers by state. As each health department reports the spread of the virus. Right now, 20 states are reporting 20,000 cases. Although this is a still shot you can see as I wavered my cursor on the state of Georgia the number of cases and deaths in that state. Just before noon today the CDC reports that the cases sometime between noon and early afternoon each day. We were still posting yesterday's count and there were 1,350,372 cases in the U.S. with more than 60,000 deaths. Every day I check globally as well and there are about 3.5 million cases with 240 or so thousand deaths. When I checked the global cases I go to the World Health Organization with W.H.O.. We also post this graph or chart that shows the number of new cases reported each day. The number of cases that are reported in increments of 5000. Early in the outbreak back there in February it is almost negligible to see on this graph the recording of cases depending on how test results are finalized and reported. Sometimes that there are spikes in the way that we are reporting so it takes a while for the curve to actually accurately reflect what is happening. So it is mainly spread from person-to-person between people that are in close contact with one another. This is mostly spread by respiratory droplets of an infected person that they project when they cough or sneeze. There's a lot of concern in the community about infections of these respiratory droplets from person-to-person. This may be spread by people who are not showing symptoms. We think about two categories of people. One is the group that is asymptomatic. They never show any symptoms. They may be mildly infected but they are infected. They move around the community because they feel well but they may be infecting other people. Then there's a group that we call presymptomatic people and that means they will go on to develop illness but they are still infectious before they develop and start to show the symptoms. Maybe for 2 to 3 days before they develop fever or other symptoms they may be able to spread the virus. So one item of concern especially among this group as we reviewed the questions is how long can the SARS-CoV-2 virus survive in the environment? We have a lot more to learn about this. What I am sharing with you here is an excerpt from the New England Journal of medicine article the reference there at the bottom of the slide. We have studied how long the virus lives under very controlled conditions. So if you think about it it is like the perfect situation. It might take up to three hours for the virus respiratory droplets to fall out of the air and land someplace. It can live in the air for three hours. If it landed on copper it can live up to four hours. On cardboard up to 24 hours on plastic 2 to 3 days and on stainless steel 2 to 3 days. The authors are very careful to note that exposure to sunlight, heat, cold to the regular environment may impact the survival but it is another one of these situations where we have a lot more to learn. So what are the symptoms and complications of COVID-19 illness? The symptoms have been growing as we learn more from ill patients we have been adding to the list. Originally you may have heard a lot about fever, cough, and shortness of breath and those are the primary symptoms. As we have learned more we have added shaking and chills, muscle aches, headaches, sore throat and interestingly the loss of taste or smell. This happens with a number of different viruses. We are really

---

With how many people report the loss of taste or smell and it happens early in the illness. It can sometimes be the only symptom people experience and they may not be terribly ill. We think of the incubation period of this illness is from 2 to 14 days. After somebody is exposed to could

take up to two weeks before they show symptoms. As I have indicated there is a wide range of illness severity. Somebody can have no symptoms, be mildly ill, or be severely ill and as we know it can result in death. We also learn more about the complications. Pneumonia, I mentioned previously. Respiratory failure, multisystem organ failure, we are also hearing reports of blood clots, stroke, neurological conditions, inflammatory conditions, skin rashes, skin colorations, we are collecting all of this information to better explain the illness. I would like to mention at this point there is an interactive self chapter where they can put their symptoms and and the check and will give them advice appropriate for the local area. The symptom checker has a name, named Lara. Of course, there has been a lot of effort to define who were the people at higher risk of severe illness we can do a lot to protect from the illness. So far we have identified people that are 65 years and older, people who live in a nursing home or a long-term care facility, people of all ages with certain medical conditions especially if those conditions are not well controlled and treated. Some of these include people with chronic lung disease or moderate to severe asthma, people with serious heart conditions, people who are immunocompromised either because of medical treatment or because they have a health condition that causes immunocompromised. Severe obesity. We have been hearing a lot about this. We define severe as a body mass index or BMI of 40 or higher. Poorly controlled diabetes, chronic kidney disease especially if you are undergoing dialysis and liver disease. So this is an excerpt from the morbidity and mortality weekly report also referred to as the MMWR. We like to call it the voice of CDC. Martha will talk more about this but this is the twitter. It emphasizes that it may be very hard for people to know that they are at risk because one in four hospitalized COVID-19 patients in the state of Georgia did not have a high risk condition. Even if we don't have diabetes or any of those items on the list and we are 20 years old we all have to take care because we are not yet able to predict who will need to be hospitalized. Social distancing which will talk about protects everyone. We are very concerned about disparities in COVID-19 illness among different racial and ethnic groups. Here you see a chart also from the morbidity and mortality weekly report that shows some of the information we have been learning about disparities of illness in different race and ethnicity groups. Here we are reporting on information about from 580 patients from 14 states in selected counties. So if we look at the first two sets these are from non-Hispanic white people the blue bar shows that 59% of the residents in these counties were non-Hispanic and 45% of the patients that needed hospitalization were non-Hispanic white. If we go to the far right and look at the Hispanic population they made up 14% of the population in this series and accounted for 8% of the hospitalizations. We are very concerned that when we look at the bars for non-Hispanic black people that they account for 18% of the population in this group but account for 33% of the hospitalizations. This is the only group in which the hospitalizations exceed their percentage representation of the population. It is very concerning. We are learning more about it as we collect more race and ethnicity data and my patients are identified so please stay tuned and we will have more information on that soon. You may also have been hearing about the Navajo nation in the Southwest. It is also very concerning there and please follow the CDC website for more there. The community is underserved and living in very harsh conditions, sometimes without electricity and clean water. There are also health disparities there and in many other communities. So what about testing? So much to talk about testing. I will give you some highlights here. This nasopharyngeal swab test looks for DNA X, it looks for RNA. This is for

diagnosis of a current infection with COVID-19. The second type of test is an antibody test or serology test which is from a blood serum specimen. This is to identify past infections. It is very helpful to scientists and learning about asymptomatic spreading illness in the community. When you go to the CDC website there are interactive graphics that look at how much state testing is going on and the number of tests that the CDC and across the nation at national public health labs. For more information about your local community you will want to consult the local public health website. So how do we prevent and treat COVID-19? [silence] in the meantime we have to take every day preventive action for respiratory illnesses. This involves very basic things that I know you have heard frequently around the town. Avoid touching your eyes, nose, and mouth. Avoid close contact with people that are sick. Stay home and you are sick, cover your cough or sneeze, clean and disinfect frequently touched objects and surfaces around the vicinity. Wash your hands often with soap and water for at least 20 seconds using an alcohol-based hand sanitizer with at least 60% alcohol if soap and water are not readily available. I'm sorry if the sound is coming out. I will keep doing the best I can. So what about treatment. Currently there's no specific antiviral treatment that has been licensed for COVID-19. You may have heard that just this past Friday on May 1, to -- Remdesivir , which was approved for Ebola patients has been showing success with COVID-19 disease. In the meantime, if somebody is not well enough to be in the hospital we tell people to manage and treat their symptoms at home. In the hospital we do the same as well as manage carefully pneumonia and respiratory failure. So what about this social distancing? It's also been called physical distancing. Essentially keeping space between yourself and others. We like to say stay physically distant and socially connected. This can go a long way to slow the spread of respiratory illnesses especially COVID-19. Again, it's a matter of staying at least six feet from others in public and staying home if exposed or sick. Some of the other community measures which we call community mitigation activities include postponing and canceling mass gatherings, encouraging telework. Here on the right side of the slide we see some of the CDC shared posts on this topic as well. I want to say a few quick words about cloth face coverings. This is also from the CDC website. These are intended to help limit spread among people mostly out in public. That is in addition to maintaining social distance and handwashing and all of the other measures. Just because somebody covers their face doesn't mean they should not do all of the other things we talked about. As seen here, my face covering protects you and your face covering protects me. This is a recommended measure to take so that we protect all of those people that are high risk and we don't know who they may be and better protect us if we are asymptomatic especially from spreading the virus. So what should we do if we are sick? Stay home. Most people recover without needing medical care and get over this rather easily at home. Isolate yourself, stay away from other people as much as possible. Keep covering your cough and sneezes and keep your distance. Keep washing your hands and keep cleaning items and do not share personal items. Monitor your symptoms for warning signs, especially trouble breathing. Do not be shy about getting checked out. Call ahead for checking out. There's a lot of services available online and on the phone and through telemedicine. So just as of early this week the CDC updated the home isolation continuation recommendation. Most people after they have been had the owners for 10 days and had at least three days of no symptoms they are able to move around the community. We say that they have had at least three days of recovery. That means no fever without use of fever reducing medication and resolution of other symptoms. There are some

caveats that I will direct you to hear. People are often very interested about the actual work that the CDC is doing so I wanted to share some photos here with you on the left this gentleman in front of the computer screen is an actual photo of inside the CDC emergency operations center and you can tell by the number of people in the room that this was before social distancing recommendations came to bear. This is a center where the CDC does a lot of management when we are not a telework situation. On the right side you see some of our emergency responders in the field in the bottom right corner you can see them working at quarantine centers at national airports checking out the efforts there. I will and my comments by reminding everybody that everything I said today is true as of today because this is a rapidly changing situation and our information and knowledge change very frequently. Please check the CDC website for new information and updates. I thank you very much and I will turn this over to my colleague for

---

Thank you. Thank you to everyone at FDL P for inviting us to do this thank you to all of you that are in attendance. It is really so helpful to CDC in the interest of time to let all of you get some of your questions that you have been putting in the chat answered I want to zoom through my little overview. When you get the slides all of the links are in the slides and they are also at the end of the slide presentation. Throughout the science you can click on pictures and the title to make it a little bit more enjoyable. Don't feel like you can't find this after I am done. Kind of a good transition to that that you are faced with during this. There is a plethora of information that is overwhelming for your patrons and public to find that information and overwhelming for you to guide them through the information. I'm going to go over the federal resources that are available. That is not all of the information that is available by any means. I just want to highlight some of them. The first that I want to start with. We have a very large website on this subject. Usually have multiple updates every day. If you can sign up each one of these websites is available. On the main page you can find the collection of American sign language videos. Those different language materials are embedded throughout the website . You can find the self check or that you can play around with. That is also linking you to the language resources. You can see that we try to make it as plain language as possible but it still can be overwhelming. I recommend that people get started and highlight some of the major questions that we get asked. That can help you prepare for questions you might be getting. If you are lost on a website there is a Google commands called site :. If you do that and the first part of the website. Do not put any spaces and that. Then type in your keywords. It will search only in that website. Hopefully we made it easy to see that some of these are not all that easy. Put in the first section and type in the keywords. I just want to highlight some areas of the website has all of that latest case information and data so the U.S. cases and mortality and hospitalization rates and other graphics and hospital capacity. That is as well is the testing information and data tracker. So that is pulling from that social vulnerability and exit we put out. We also have a huge amount that we highly encourage you to use yourself for your organization and your community. There are videos, fact sheets, multiple languages . There is guidance, resources, PSAs that are all audio and also designed for different populations. We also have a public health image library. They are all sorts of comments. There is a social media toolkit that you can use and customize as a digital press kit. One of my favorite parts of the communication is the micro-site. You can embed our website and it will update as soon as we update our information. You

can customize it slightly. We are using a word press as the site . It should work just fine if you are using most website builders but let us know if you have any problems with that. You can request any part of the website be made into a micro-site and then on that you can ask for those things to be created. That can be filtered by audience including things like this Mrs. an audience her university and as soon as we update those guidance documents we put them there and he can sort by the communities.

---

We mentioned the voice of CDC it's called the morbidity and mortality weekly report or the MMWR. This is actually named. It comes out weekly with the latest research from CDC. As a nice visual abstract sometimes. You can find more of our latest research there. That is open access. So this can be in English or Spanish. You can email us their there might be a way of getting at back to you. Including the publications that you can order you can see that at the bottom of the left-hand side. Just so you know you can order CDC staff. Pat fact sheets and pamphlets and education materials for free and put materials. Some of that does cost for shipping but it is usually a very low cost. It is also provided by CDC. We have an awesome research guide. This point you to the best databases of journals to search for COVID-19 literature and how to craft search alerts and different databases as well as new sources, secondary data and statistics sites not only from CDC but worldwide and major websites. Again, they are designed for researchers and resources. Most unique in this research guide is a downloadable database of all COVID-19 research articles. I am updating this daily Monday through Friday. I anticipate these lists for free. I'm not recommending anybody over the other. The search strategy is included for this symptomatic search so please use it. This includes links for all of these articles. If you do not have access to some of these articles we worked really hard with publishers and a lot of them are making all of their COVID-19 materials open access. If you come across an article that you have to pay for I highly recommend interlibrary loan or consortium sharing. It can be hard to do that right now with so many libraries that are closed. You can also install these in your browser. These are the most legal ones. They will try to find an article when you are on the Internet. If it is behind a pay wall they will try to find it if it is posted somewhere in an institutional repository or a similar repository to get you the full text. There's also another Google search and then you put the ending file type. Then you can see if you can find a PDF posted. So we will get through these last federal resources. This is all of the federal websites that are available. You can also check out USA.gov coronavirus or coronavirus.gov. I wanted to highlight some major ones. In these slides all of these little icons are linked and the leaks are also at the end. The first category is health and safety and Health and Human Services is a huge department of the federal government. We have tons of guidance, grant opportunities, telehealth, tons and tons of stuff. FDA is really leading the charge on drugs Sudan safety as well. You can check those out for the latest. NIH is definitely leading the charge the check those out especially for research opportunities. There are a lot of claims information and support for rural and tribal communities. The substance abuse and mental health is really challenged with all of those communities struggling with substance abuse and mental health issues etc. There's a lot of different apartments around different populations so depending on what communities you have in your community I would suggest going to each one of those. All of these have different toolkits that are designed for their population and areas of focus. Definitely check them out. For example the centers for Medicare and Medicaid have that huge

toolkit to help their partners with video, audio, anything that can somehow help people with their issues. If you are having a hard time with one of these websites because they are so big try the Google trick and that should hopefully get you to some of those. You can always email me. For health and safety administration's that are not necessarily part of the HHS the EPA is of course focused on the environment. There's a lot of information about the correct disinfectants to use, water, as well as a lot of information for state, local, and tribal environments. They focus on occupational safety and health administration. It has done some stuff for various occupations. If you have different occupations that your community is working with they might have benefits or specific guidance for them. The Consumer Product Safety Commission is also working a lot for different projects. If you are not sure where it comes from her does not appear to use it right now. FEMA, of course is bringing together a lot of disaster relief and they have a long list of resources. There are other communities for the U.S. Department of Veterans Affairs that are focused on specific populations. I also like to mention the United States Census Bureau. They have a data hub where you can create little reports that will give you ideas of the population risk and disparities. This is going from past census data. You can make a report for your community which is really valuable. This is also why I am really pushing to remind your patrons and help them complete their census because that's how we can identify and forecast what communities may need help. To have a great little link for completing it as well. The Homeland security also had a digital library which you may not know about. That gives you a bunch of policy and lessons learned documents that can be used with the search engine. At they can post lessons learned from how they did open and accessible. This library sometimes has it. Has a lot of other disaster information and hopefully that is useful to you for other things as well. The national library medicine has done this. They have a data hub for the virus behind COVID-19, SARS-CoV-2 which people have mentioned. It is a subset of pub med for the research articles which is a research database. Both of those are included in that downloadable database that I mentioned that I am putting out everyday but you can also search those if you are looking to sign up for a clinical trial etc. The research center is also pictured here. It's a great resource that they put out and includes lots of information for different populations during the disaster. They also have a specialist certificate that you can get. I highly recommend it. They also have apps that you can sign up and download for free usually for first responders. The IRS's the people to go to for your economic impact checks they are doing a lot there. The small business administration has grants for small businesses. The USDA is providing more relief. They are also working to find ways to help those workers right now . Federal student aid has put all loans into forbearance as of September. That might change but for right now it is through September 30. USA jobs is also hiring so if you have people looking for work please consider that as well. We need a lot of help for COVID-19 and they are hiring a lot. Specifically for libraries they have tons of grants that you can apply for that might work for your library organization or your partners. You can also search grants.gov and just put in COVID. You can check for travel advisories by country. They have changed out services right now so you can check their website for where to get services for when they will open back up for the FAA also listed with the image below will put down which of their facilities has personnel testing positive so you can check that out. The Federal transit administration has materials and resources based on different transit. So scams and fraud. If DLP had an awesome webinar on that. They are working toward that and they have great infographics and resources that you can use they have which charity to choose as



well. The law librarians of Congress have a fantastic resource guide to find legislation and presidential action and Congressional research service reports has one of articles. They have a wonderful blog post on had a sinus. A lot of those agencies so getting those filled because we are really busy with other things as well but we are taking requests. CDC is not. So just note that depending on who they are requesting from. If they had taken a mailed in one or they will take it truly website. The reporter committee has a Google doc. And finally, for museums the Institute of museums and library service has awesome COVID-19 updates. [Indiscernible] they have really awesome videos they have the paper-based circulating. All of the links mentioned like I said are here. You can find them at the end here. With that, we have a few minutes for some questions. I am sorry that we came right up to the end. I just wanted to thank all of you for attending and again thank you for moving this talk of DOP.

---

We will jump in and start with some of these questions. The first one from Bert. There has been a lot of criticism of the accuracy of epidemiological module he during the pandemic. What are characteristics we should look for to evaluate the quality and reliability of such models?

---

This is Joanne. In general what I say looking at models is the quality of the information in it and I think that many of you as critical thinkers. And I look at a model I look very carefully at what assumption has been made. I always look for careful limitations of what the model are. Think it is very careful to identify all of those factors. That can go a long way.

---

What are the most important metrics to look for if it is safe to and isolation.

---

Isolation refers to a person who has symptoms and separates themselves with others by their choice or because they are in the hospital but isolation means that somebody is ill. I share the new guidance that people should be at least 10 days out from the start of the symptoms and should be at least three days without symptoms before they and isolation. If they have been mildly ill and isolated themselves at home after a minimum of 13 days with three of those days having no symptoms and no fever they could then be in contact with their family members in the household.

---

Why did SARS and MERS cease infecting humans?

---

That is a good question. It's not clear to us. Some viruses mutate quickly and a great deal. They mutate so that changing their genetic material, they mutate themselves right out of existence and their ability to infect and cause disease goes away. It may be that, it may be that the measures that were put into place and Dave the ability for it to pass from person-to-person along with some lesser changes in its genetic makeup. All of those items come into consideration but I could not say with certainty.

---

Can we determine how many COVID-19 cases are still active versus recovery?

---

Technically yes. Their recoveries will be known. It is much easier to track people that are hospitalized because there is a point of entry at which we can start counting. The other aspect that I mentioned is the antibody testing.. We see who was tested and who recovered.

---

When a person puts her symptoms into a symptom checker what personal information is captured and stored such as their name. What information is captured from the device?

---

I have played with it. I do not remember it asking for my name. And asks for a location so that it can give you information about where the contacts. I am not aware of what other information that might collect behind-the-scenes.

---

I have not seen any literature yet. [Indiscernible]

---

That is a fantastic question. We are working hard on that one. At the moment we are working to see who has been infected in the past but it is not yet known if antibodies make somebody protected. That is why if somebody is infected and recovers and this happens more often in the health care center where health care worker will be ill and recovers and then returns to work, they take the same protective measures as somebody who has never been infected. They do not have enough of the data to say what level the antibodies need to be protected. We are very early in the understanding of this.

---

What advice would you give to the libraries that are planning to open back up in the public space?

---

On the CDC website we have the library is not called out specifically. They are addressed in the webinar. Many of the same protective measures are taken were people congregate they interact in ways that you might create distance between patrons and staff members the ways of separating workstations or maybe not having it available. Frequently disinfecting frequently touched surfaces such as keyboards and other items maybe they are modeling that.

---

I am sorry.

---

I know that we are over time but I echo what Joanne said, guidance documents.. That those videos have how to clean things they look at that as more guidance is created. As Joanne said.

---

I would just like to say that the information on the CDC website is general information for the nation. At local community levels decisions are being made based on availability and the needs of the community and how many people are still in the community and the circulation of the virus in the community so a lot of the questions that I see on the chat last really need to be referred back to the local public health and community authorities to get the best information for the local situation.

---

We are out of time. I want to thank Joanne and Martha for presenting. This has been a wonderful webinar. I am really thankful that you guys took time out of your busy day. I know that you are pretty busy right now so I want to thank you for presenting this webinar for us.

---

Thank you so much. We are really happy to do it. We are so glad that so many were able to attend and we wish you all the best of luck and wellness and safety for sure.

---

Thank you very much. Please take good care. It was a great pleasure to be with you.

---

Thank you for joining us. We will see you on the next of DOP Academy webinar. Thank you.

---

[Event Concluded]