>> Good morning, everyone. And welcome to the first in-person meeting of the advisory committee to the director of cdc. In welcoming you, I want to note there is a closed captioning link that's been provided in the chat box for your convenience. And with that, let me turn things over to the chair of the advisory committee, Dr. David Fleming.
>> thanks, John. Good morning and welcome to acd members and cdc leadership. How great it is to finally have mostly in-person meeting of this great committee. The onlying thing that would make it better for me personally is if I could be there with you. Instead, as some of you know, I'm now at my second home, a couple of hundred yards away from you at the hotel. A couple of years ago I would have been there sniffling and sneezing with you and perhaps spreading what then would have been a common cold but with these symptoms, the stakes are higher so I ask for your patience in dealing with a virtual conference today. We have an action packed agenda today so let's get right into it. Our first order of business is the roll call and conflict of interest disclosure. As I call your name, please indicate that you're present and whether or not you have any conflicts of interest. I'm present virtually and have no conflict of interest. Dr. Michelle Albert?
>> Present and no conflict of interest.
>> Dr. Rhonda meadows?
>> Present and no conflict of interest. Good morning.
>> Good morning. Dr. octavio Martinez?
>> present virtually and no conflicts of interest.
>> Exactly. I think we're going to go into the room now. Dr. rasha?
>> Present and potential conflicts include independent director.
>> Thanks to that. Dr. Julia Maria?
>> Present and no conflicts.
>> Dr. Jill Taylor?
>> Present. No conflicts.
>> Dr. Josh?
>> Present and no conflicts.
>> Monica?
>> Present and no conflicts.
>> Mr. Daniel doss?
>> present and no conflicts.
>> Dr. ADA mora?
>> Present. I receive consulting fees from Merck and my institution has received compensation for my research. >
> Miss crystal Gary?
>> Present and no conflicts.
>> Dr. Lynn goldman?
>> Present. My university does receive funding from various companies that might be involved with some of these efforts and we have received funding from the cdc but I can't identify any specific conflicts.
>> Perfect. Thanks. Dr. Rachel HARDiman?
>> Present and no conflicts. Thank you.
>> fantastic. Good news is we have a super quorum today. For those of us joining virtually as we have in previous meetings, please raise your hand during any discussion section and we'll work to recognize you. For those of you in person, I think I can see name tense in front of each of you and we would like to have you raise your name if you want to make a comment or ask a question. I can't see those real well so John is going to take the lead in recognizing some of those in the room. In our first meeting, in our meeting today, we're first going to hear updates from our three work groups on data and surround Valance, laboratories and health equity and then we're going to proceed with updates on Covid, monkey pox and finally, conclude with a presentation on climate and health. So we have a really busy day ahead, though. First, as becoming our custom, we would like to start with a presentation and an opportunity for discussion and dialogue with the director of cdc. And as always, Doctor, we value your presence and very much look forward to this discussion. You have the floor.
>> Great. Thank you so much, David, and thank you. Good morning, everyone. I'm delighted to be here mostly in person. We do miss those who are not here with us but we will look forward to having even

more of you in the room soon. I enjoyed being at dinner last night. I do want to thank a large number of people who have made today possible. Certainly Tiffany brown and the staff office for all the work and logistics and gathering such a stellar team who I'm grateful will provide me such wise counsel and sound advice and then, of course, John, our federal official for leading us in this charge along with you, David. As I do each time we meet, I do want to express my gratitude for your time and commitment to public health as a whole, to getting us to a better lace and to share your expertise and guidance. Your three work groups are up and running, equity, data and laboratory quality. These are critical for the moment. I know many of you are rolling up your sleeves and diving into the hard work and not surprisingly and even in the headlines this morning, so much of this hard work relies on actually having data, seeing data and being able to move forward based on the data we're seeing. Speaking of work groups, later today I believe you're going to hear from Patrick brycee about our agency-wide work group on climate change. Let me just mention our partnership with the office of environmental justice. This week we announced the release of our environmental justice index. This is the first nation place based tool that will measure the impact of climate and environmental burden on human health and health equity so we're excited to roll that out. Pat will have many more details for you and couldn't pick a more compassionate person about that topic. I do want to start first with an update where we are with Covid. And then we'll move into some of the other challenges that we're facing as well. I believe you know that Dr. mann, who was our incident manager for a long time, has stepped aside and now Dr. Williams, who will talk to us today, has stepped into the incident manager role. We owe an immense amount of gratitude to Barbara for leading our response from the middle of September of 2021 to the middle of may 2022. This was a tireless task that she thrived in. She's now gone back to ncird and she's serving as our cio responsible official or what we finally call now the crow. As we are working hard to move activities back to the programs, working hard to facilitate the communication between the programs into the iem and now we have a Covid cro in all of our national centers. We reached the tragic milestone of one million deaths. Something previously unthinkable when I think to where we were in march of 2020 and even now we're at about 400 deaths a day and that -- you know, we've become accustomed to saying it but I don't feel like that can be a number we are OK with staying at. I think we really do need to continue to recognize that that is well too many deaths than we should be comfortable with. In the news, we have the new ba.5 variant. This is an Omicron sub variant that accounts for nearly 90% of cases here in the United States. We've seen a doubling in the number of hospitalizations since April. We're hoping that's starting to plateau, if not trend down a little bit. And the largest percentage of deaths are really occurring among those over 65. Some people are thinking of getting boosted now or starting the primary series, they'll wait for the new vaccine that everybody is participated for the fall. Staying up to date is really critically important. There are many persons who remain undervaccinated. Only 32% of all ages have received one booster dose. 32%. And of those over the age of 65, only 25% have received the second booster dose so we really are an undervaccinated country at this point. We have been in close contact with the fda with regard to actions that will occur in the fall. But if you haven't gotten your primary series, of course get your primary series. If you have not gotten a vaccine boost in 2022, get that now. There are many discussions about the actions that will be taken in the fall when we have a boost. This is going to be a booster that is part prototype and part ba.5 that will be the boost. You know, there's a lot of discussion about the timing from your last boost to when you will need your next boost. But what I would say is if you're -- if one is over the age of 65 and eligible for a boost now, they should get it. There's a lot of infection out there. And they will be eligible for one in the fall whether they'll be eligible for one the first day it's out, perhaps not but they will be eligible for the one in the fall and it's better FOV more protection now. I also want to just talk about -- well, maybe I'll say for those immune owe suppressed, we still have things that we can do to protect ourselves and protect our patients so that's something that people should be well aware of. It is the case that recent -- a second booster has demonstrated four fold decrease in deaths compared to the first booster so we really have data that has demonstrated that second boost works. One of the places I'm most concerned about in this is our children. We have authorized use of a vaccine for our less than 5-year-olds or six months to 5-year-olds on June 18. I looked it up this morning. And we have 4% of our six month to 5-year-olds who have gotten one dose. It's really low. And this is really in the context of kids going back to school. If you want to sort of talk about like our 5-year-old to 11-year-olds, we only have 30% who received a primary series. And those, of course, are eligible for boosting as well. So we have a lot of work to do on the pediatric front. Maybe I'll just add in a plug for general pediatric vaccinations. Data has demonstrated a

1% decrease in incoming kindergartners being up to date on all their vaccines and that amounts to about 35,000 children who are undervaccinated. Fewer vaccinated than last year. So anything that you all can do in terms of the outreach to promote boosters but also to promote pediatric vaccination will be really helpful, I think, moving forward. So now we'll change gears and talk about something I have to say that was not on my plans for 2022 and that is monkey pox. Of course, we do have to be ready for anything that comes our way. We saw our first case of monkey pox in this country related to the outbreak on may 17. And we have now activated a monkey pox response and the captain is our incident manager and she'll talk with you later today. We have been closely tracking cases since mid-May and the latest count as of yesterday are 8,933 cases as well as 49 states as well as district of Columbia and Puerto Rico. The single state that has not reported a case was Montana. Yesterday we had our first case from Wyoming. We are -- so data indicates from this infection that it spreads through close person to person, skin contact. That is where most of our transmissions are occurring. We are generally calling this a sexually transmissible. There's still infection. Certainly it can be transmitted through the encounters that occur during sex but it's also the case that there's still science that is evolving regarding whether it is transmitted through semen and vaginal fluid. We have been doing an extraordinary amount of outreach through our jurisdictional partners, community based organizations, civil societies, academic societies and talking about vaccination and in fact, I have said publicly, anybody who has more ideas on how and where we could do more outreach, please send them my way because I really, if I have an idea, including calling Google, I do so. How can we get our message out there? hhs has been working to allocate vaccines. The strategic national stockpile of vaccines, the allocations strategy really initially was based largely more on cases followed by, you know, at-risk demographics so in terms of the allocations algorithm, early on it was really mostly based on hardest hit jurisdictions where the allocations were 75% based on cases, 25% based on at-risk population. July 27, fda announced a supplement to the bio logics license of the vaccine nordic and we were able to say we have more to the tune of 780,000 vaccination -- doses. So that has been our phase three allocations where we've been able to shift a little bit and not just do it based solely on cases but do it more based on at-risk population. We have defined the at-risk population which we have pretty good data for on folks who are prep eligible, hiv preeligible which gives us a pretty good sense of high risk populations. It doesn't capture those that have hiv so it's the denominator we're thinking of is hiv infected msm as well as plus the prep eligible population. If you do that it totals 1.6 million people. But it's also the case that we don't know if those are the people who have been vaccinate sod far and that's one of the biggest challenges we have is not being able yet to see who has been vaccinated so far. We're working very closely with hhs and Denny will have more to share. You may have heard the fda is looking at a new dosing strategy of doze -- dosing. In terms of health equity, this has been at the forefront of our efforts. It's what we're doing in the agency and outside. A lot of what we've been looking at with Covid boosters and also monkey pox vaccine and one of the things that's most frustrating to me in the current moment is that we are starting to get case demographic data on monkey pox but we don't yet have any vaccine data from the vaccine. We have a handful more of jurisdictional drug data use agreements to get signed but we're working pretty closely to get those signed so that we can actually start receiving those data. In terms of our health equity, we're working closing with hud. There's over $11 billion for housing. We're looking at supporting affordable healthy housing for people who are experiencing homelessness and residence of public and multi family housing. We're working closely across the government, all usg for participation in strategic planning and equity and the department of transportation, advancing ongoing cross agency work in combating unhealthy social determinants of health and you're going to be hearing more about that in November. And then we really do want to make sure that the voices of our community are heard and are included in all of our work. This has been key and instrumental in our monkey pox work for sure. In terms of the most exciting news in that regard, we have the release of a notice of funding opportunity for almost $4 billion in work force. And infrastructure and really, so much of what I have said here and on the hill is we really do need a public health work force for the diverse communities we serve. That has to be what we're working for. It's people from the communities, serving the communities who understand and are culturally competent within those communities. This work does not require disease specific work which I also think is critically important. It allows us to pivot our resources when we have an urgency, an emergency to otherwise an infrastructure rather than a line item that was intended for wide disease that we can pivot in the moment and it allows us to create the creation of positions such as those on multi sector partnerships while also ensuring support for our traditional core work. So through

all of this and with your help, I really do hope to have a new chapter in public health and to really turn the page while continuing to provide the core public health services that we do, I do want to make sure that we can address those who are in greatest need, those who have been neglected for years but finally now seen and everyone is seen, the world has seen, has been specifically neglected during Covid. Maybe just a few words on what has been keeping me busy as if this wasn't enough. I do want to just say I have had the great opportunity now to start travelling the country and to see public health at its best and see some of the challenges in the field. I was at the L.A. department of public health. I saw youth advisory council. They were vaccinating children in a playground. It was really, really inspiring. Kids go to the playground all the time, parents were with them and it was really fun. I sat with a 7-year-old who had his first shot right off the jungle gym bars. I was in St. Louis and went to a federally qualified health care center there, also having really challenging times in this moment and then I was in New Jersey. I actually also went to a health site in Baltimore so it's been really fun for me to get out and see health -- public health at its best and some of the challenges that are being faced on the ground. Most recently, in fact, last week I returned from my first international trip. It's sane me a year and a half to shake free of some of the things here to be able to get across the globe. I was in Tanzania and uganda and, you know, as I came back from that trip and was able to think about how we at cdc are so essential, revered in some of the work being done across the world. That was truly inspiring for me so I was in a health care facility in a township in zzanzabar, heard from workers, heard from folks who say this was the only place they could get stigma-free care essentially and why don't we have more of these and why do I have to travel so far to get to them. I went to a dream site in uganda, incredibly inspire to go see these young girls learning a trade so that they would be off the streets, essentially. And really inspired. They baked a cake for me and we were able to cut the cake. We went to a landing site where they were giving -- I think they had a clinic that was about 6,000 patients large where folks were getting their retro virals from the shore. One other anecdote that I saw, I was looking at global health security on the congo Uganda border and I met Peter, the young gentleman who through our training had detected -- he was working triage in a local hospital near the congo boarder and detected a woman who likely had ebola and her baby, 4-year-old, put them in isolation and probably saved a good 500 lives because the prior outbreak cost about 500 lives because he knew what to look for. It was inspire to go see the educational work we were doing and how it translates into better health, health security. Not just here in the United States but across the globe. So I'll close saying how grateful I am for all of you being here. I don't know if Kevin is here but we are excited that DREF in Kevin Griffiths, our new communications director. He's just started. These are hard times for cdc but I think these are really exciting times for cdc and we have a moment now that we can pivot and just be in a better place so I am really grateful for your help in getting us to that place. With that, I will say thank you and really grateful.
>> Thanks so much. It's good to hear that you've been keeping busy and thank you for the global health report. That's very near and dear to my heart and so much more needs to be done there. We're going to open the floor now to questions or comments from the members. I will be able to see folks on video, on zoom, but look to John to identify folks in the room that would like to make a comment so the floor is open.
>> David, Dr. doss has his card up.
>> All right. Well, thank you so much. You know, you ended with gratitude and I want to open with gratitude and I want to thank so much for the excellent work that you and your team have been doing and I was really delighted to see that you included health equity, a report on that and I wanted to ask you specifically because we've been working with, you know, African-American and Latino communities, native American communities throughout the country and the territories and with the children, I was curious if you had any data regarding the breaks. Any bright spots? Do we see any bright spots that perhaps we might be able to take lessons from and replicate?
>> Yeah. So I think -- so interestingly, when we started to pull the data on vaccination, one of the places we were looking as the social vulnerability index as well. We looked at graphic and social vulnerability index. We were quite good with regard to social vulnerability index and equity. We eventually got there with our primary series. It took a huge amount of work but we eventually got there. We were lagging in our boosters and one of the places that's been interesting where we've been lagging with our kids is in the rural urban divide. So we have a twice as high -- I haven't looked at the data in the HAS couple of weeks but twice as high vaccination rates for our urban kids than our rural kids. When we think of equity, this taught me and said to me this isn't just racial and ethnicity. It is frontier. Are we getting

vaccines to the pediatrician? To the family doctors in the rural areas? Some will call that the red-blue divide. I don't think that that's the case but I do think that there are propensities for different messaging in the areas. I've done rural television so, you know, we're trying to get those but I'm probably not the best Messenger for those communities so working hard to figure out who those best Messengers are. But rural urban is where we've seen most of it but I actually would say there the discrepancies there but not enough to make up -- we still have a problem in urban areas as well.
>> Thank you.
>> David, we have four people who are in the room who have indicated they have a question. I don't know whether there are other people virtually that you would like to call on.
>> Let's go with the four.
>> OK. Dr. Goldman?
>> thank you. And I also want to thank you for your service to the country. This is an amazing time to step up to the responsibility you have and I want you to know how much we all appreciate it. It's not always appreciated by everybody. But I wanted to ask you as a Dean of a school of public health and we're involved with the considerable amount of research, mostly funded by nih and seeing from my perspective the resources keep flowing, flowing, flowing in that direction which is good. We like the nih but not enough to the cdc. And I would love to have your thoughts, if we had more of an opportunity to innovate in the area of public health, what would be helpful? If there were an arp of public health, you know, what would that look like in terms of the implementation, science, the environmental, the behavioral science, the data science that we need to support your efforts and the efforts of the state and health departments?
>> yeah. Thank you for that. You've noticed a trend that I've noticed as well. You know, I think one of my last academic exercises that I did was thinking about vaccine rollout and what was going to matter more than the vaccine effectiveness was vaccine uptake and the behavioral science around it. We could tolerate the vaccine that didn't work so well if everybody got it and I do think in public health, behavioral sciences, underestimated and undervalued in terms of science and implementation of science as well. Because I think if we had recognized that in 2020 that we were going to have a problem with uptake that we might have spent some of those operation resources to make sure people were primed and ready to go to get this vaccine when it came out. I do think that one of the challenges that we have in public health at the moment is programatic. Well, there are two. First is public health works when we're quiet and nobody knows we're around and we're actually doing the good work of public health and one of the things I've said is last year, we had 64 outbreaks that most people didn't hear about. And, you know, maybe there was a recall of something in a local community but most people didn't hear about that. The other one that I think is really -- this was really key to me and this was part of the mmwr we wrote, we had an extraordinary effort from the cdc. We had 47 measles cases. And when you think about what might have happened in the absence of massive public health works during that time, again, not something that everybody recognized so the programatic work on the ground. I trained in the school of public health where we learned the methods for research but there wasn't a lot of placement in states, public health, you know, what is the bread and butter of public health working in the state and local health department SNZ I'm not sure a lot of that is really appreciated in the school of public health. I spent some time in my academic world trying to mesh our academic center with public health. We had a sexually transmitted infection clinic in our hospital and yet we didn't talk to the public health as much as I felt we should. The other challenge that we really have is related to authorities. We have real challenges related to authorities. These are regulatory authorities, human resource authorities, operational authorities, how we contract, how we deploy our folks during urgent times, during response times and especially our data authorities. That is a -- that is a real challenge. It doesn't take money. It takes will. But I will say when people have compared the monkey pox response to the public response in addition to a little bit of making me cringe, I will admit, it is the case that we still don't have the data that we would like so when people say, how are you doing on vaccine equity with monkey pox, I don't know. How are you doing investing distribution with monkey pox? I don't know. And we are called upon to deliver that and yet, I don't have it. So we distributed it over half a million vaccine doses and I can't tell you to who. So those are some of the areas that would be really helpful.
>> I want to echo all the appreciation that you're getting here. Just say that I can't think of a time when there were so many major public health challenges and so many extra degrees of difficulty you've had to navigate so deeply, deeply appreciated. I want to ask you about one more major public health challenge

which you did not initially mentioned that come about in the last few weeks as both the supreme court decision overturning Roe v. Wade and the threat that that poses to the health of pregnant women as well as other health implications for people in this country and I wonder whether cdc has been thinking about its role in surveillance, for example and for different challenges. We're reading all kinds of cases in the newspaper, routine complications of pregnancy going essentially unattended not to mention the risk to maternal mortality. How do you think about that as a public health issue?
>> I'm actually going to pass this on if that's OK. I thought you were going to say polio because there's that, too. Not funny, actually. So yes, we've been -- so much of what -- first of all, so much equity is access to care. This is going to be a mess of access. But the question you're asking specifically around surveillance, there's conversations about what are the data we have now that can look at mortality, women suicide, women suicide ideation, mental health in addition to fetal outcomes and all of those sorts of things.
>> so you're right. I think we need to look at data and outcomes and health outcomes is the important part. We already have several data in place that look at births. One of the things that has been looking at things at births among 10-year-olds to 14-year-olds. Are there targeted age groups? We also have a data set that looks at fetal demise for 20 weeks and older. Are there changes in the fetal demise we're seeing? Maternal mortalitymortality, there's some delays in how that's reported but I hope to be able to report provisional estimates on those like drug overdose. We'll have much more timely data. The two other things we're considering because we're looking at what the gaps are, are around coming up with the right syndrome to be able to put vaginal bleeding, infections, things to delayed reproductive health care and things like the ehr data sets as well to build the gaps. When it comes to mortality, we have excellent data that's become more timely and we have things that allows us to look at state level data around pregnancy and reproductive access to really trying to drill and like Michelle mentioned, looking at other health outcomes such as adverse childhood experiences. We want to see if there's any impact of really young children.
>> Thanks. There are other folks that are here in person.
>> Yes.
>> So Dr. marita?
>> I can call the next person and come back to you.
>> good morning. And thank you, Doctor, just to echo what others have said in terms of gratitude for sharing those updates. Just rashable -- remarkable what you're confronting every day. I have several questions but I'll only ask one. I appreciate that you lifted up Covid vaccine rates among the pediatric population and then in general pediatric vaccines. Dr. marita, Dr. Monroe and I and colleagues from several other foundations, including Kellogg and Packard are part of a bi weekly meeting on pediatric vaccines that's being led by health leads so American academy of pediatrics and other partners are involved in this and we have been trying to be creative and sound the bell in terms of what you just raised, especially with kids going back to school and so, you know, mainly stand ready to work and partner with your teams at the cdc and if there are any ways specifically that we could partner that would be helpful because I think we're -- I'll speak for doctors marita and Monroe that we are here and eager to help.
>> thank you. I think with more rollout campaigns, I think one of the things that's been interesting about these times is there's not a lot of resources right now left in doing some of the work, the media strategies that sort of were once robust, there's not a lot of resources. I think many people are done talking about this. But -- and I think one of the real challenges in pediatric vaccination has been that folks are comparing pediatric outcomes to outcomes in those 80 years old. Yes, folks, kids fair better. That's good news than people who are chronically unwell and elderly but it's also the case and if you look at every age, pediatric age demographic, Covid is one of the top five leading causes of death in every pediatric age demographic under 18 and the top infectious cause of death. So we -- you know, these have you been -- these have you been preventible. Thank you for your work on that.
>> We only have enough time for the cards that are already up. We ask three folks so Dr. maDr. marita, you're next, please.
>> Thank you. I echo thanks. I won't say more because everybody has said it already. Your comment about resources is related to my comment as well. I was just wondering with the public health emergency deck LA ration for monkey pox, are there initial resources becoming available to you all? I had the opportunity to engage with a cohort of state health officers a few weeks ago and one of the

things they raised up was the question about the disparities funding drying up and how they had used that funding to really build up infrastructure to support community efforts to really reach deeply into derive vaccine efforts and I'm seeing there's an opportunity here with the public with the monkey pox as well that there's a need for that level, engagement, participation and planning and response as it relates to vaccinations efforts and I'm just wondering if there are resources that will become available that could be used to strengthen our continue that work that's happening in those states and locals.
>> Thank you for that question. It's one that we've been -- I mean, on the one hand as I came in, in January 2021, there are resources related to Covid. There were more resources that came. Now tackling a new challenge, there are clearly fewer resources that have been devoted to that but maybe I'll pass to Shari.
>> I'll say the declaration of the phe did not unlock access to any additional funding. It does increase visibility about the public health concern and there are a number of groups right now that are very active engaging with Congress on the need to do some community outreach related to monkey pox. We'll see how that evolves.
>> Great. Dr. Hardiman and then miss Gary.
>> thank you so much. I also will echo my thanks. My question builds on the one that was just asked about the impact of the dobbs decision on public health and population health. So we know or the current estimates are showing that with respect to maternal mortality, there will be a 33% increase in maternal black people based on our abortion ban. So as we think about the public health crisis, all of the sort of ripple effects that are going to impact racialized communities, I'm wondering how someone like me as a reproductive health researcher, someone running a research center focused on these issues, what's the evidence based need based on your work and efforts and moving forward, protections for people across the country?
>> again, I'll pass that one to Deborah except to say that one of the things fortunately we have a secretary who is also very interested in maternity mortality so we've been able to raise that up. We said that this is something we could really tackle. Like this is something that we could really do. And dobbs has just put some blockades in that for us. We -- not that we can't do it. It's just going to be a little bit harder but maybe I'll pass that to Deb.
>> And great question. Really important topic. I agree we're seeing the disparities worsen and the death continue to increase which is not the trend we hope to see. Wanda barfield leads reproductive health and has done some fantastic work making sure that women get access to health care and providers understand a lot of systemic racism, barriers present and also the perinatal require manies and there's been increases proposed for mortality work. I think a lot of it is expanding what we know works and breaking down the barriers and then having the timely data to be able to show improvements and to drill it down by state.
>> Finally, with the last question, miss Gary.
>> Actually, I'm going to cede my time. My question was similar to one that was already asked.
>> Great. I believe we also didn't -- I believe you had a question so that will be the last question.
>> thank you so much. And again, I want to echo everyone else and congratulate you for this leadership in this really challenging time. My question relates to can you tell us a little bit about cdc's strategic plans around communication of these public health emergencies to the public? Because as we know, with the Covid pandemic, there was a lot of angst regarding, you know, communication strategies and also could you tell us about how, you know, cdc is coordinating with other entities around communication?
>> Yeah. That's a really, really important question. And one -- so when I started in January, we had had a posted position for our director of communications for several years. We have again just recently filled it which I'm excited about. Our communications budget is about the same since 2014. So we're just in a different time as an agency on what we need to do about communications and how we need to communicate. We have had some communication challenges, some that predated me and some that I'm responsible for so I need to own those as well but I think we're in a different era of communications from our -- from the cdc. Previously I think our consumers were state and local health departments. Hour, I think during this pandemic, our consumers are every American. And so I think, you know, as we think about who -- did I ever expect that every American would be reading our like maybe school guidance is the wrong example but our correctional facility, everybody is reading these now when previously we had been sort of accustomed to having them -- our audience be state and local health

departments or had not facilities or things like that. It's also the case that we've had incredible challenges with social media and misinformation. And we as an agency are not funded from a communications standpoint to tackle those kinds of challenges and I have protectly late at night said if I knew there was going to be a nugget of disinformation that was about to be dropped on Twitter and Instagram and I even knew about it, are we prepared as an agency from a communications standpoint to combat it? And I don't know. I've asked that question not just of us but of our major agencies and I don't think any of us are. And so from a communications standpoint, that has to be some place that we are at least working collaboratively to tackle.
>> I just wanted to add two things. One is under our chief operating officer, we have an underprise risk team and they are diving into risk communication as a vulnerability so they can begin to implement changes and I think, John, it would be really nice maybe at an upcoming meeting for communications to be a topic so we can present on the capabilities that the cdc has, what we need, what those gaps are and maybe get some recommendations how to fill those.
>> maybe one thing to just close is to say that we've taken -- we've looked introspectively and looked at challenges with communication and what we need to do moving forward and I do hope that people are starting to recognize our communications are sort of more plain language, simpler to understand, not trying to tackle every last question. Early on we got a -- what if I want to visit grandma on a Thursday and I went to a party on a Tuesday and it's like that's not what the cdc communication is supposed to be about so we've tried to simplify the message. We've tried to be timely in the work we get out. So that may or may not be obvious to all of America but we're doing that work right now.
>> I can't believe how quickly this time has gone by. Communications, I really appreciate that suggestion for a bigger dive on that. I think that's important. I have about ten questions I would like to ask but we don't have time and I'll reserve them to the next time when hopefully I can ask in person. I would like to really thank the cdc leadership for the time this morning. It's been incredibly useful. Thank you.
>> Really grateful to all of you. Thank you very much.
>> It's interesting. On a zoom meeting you can instantly go to the next topic of conversation. I'm going to sort of watch the room here to see as we reorganize. We're going to move the agenda now to the report from our first work group, data and surveillance. That work group is headed by Dr. Julie mmorita and Dr. shah. I don't know if you're going to speak from your places or move to the front but I'll turn that over to you to begin giving us an update on the important work.
>> And make just before you transition to that, the doctor had to leave to handle another matter. She's indicated she'll be participating as she's able to throughout the day virtually if not in person. So she just wanted to relay again her thanks and her commitment that she'll be participating as she can throughout the day.
>> Great. And we certainly understand she may have other things on her calendar. We understand that and appreciate her ability to participate as she's able. I'm going to turn it over now to Julie and nirav.
>> Thanks so much. Good morning, everyone. We won't take the departure personally. We prefer to stay here and give our update from our spots here. It's a pleasure for us to provide this update and we'll be tag teaming. I'll start and he'll finish. So since we last met, the work group has identified our work group members and we've met twice. Our group has 15 members, five of whom are acd members actually there's some of us that I think about it. David, crcristal, Lynn and Rhonda and then we have nine other members who represent a wide array of different kind of sectors. But we really focused on looking for representatives that had expertise in state and local public health, health care delivery systems, academia, including equity forecasting or public health experience, electronic health records, public health law and also industry so we have a wide -- we were pleased and surprised we had as many responses as we had. So when we first posted the position, nirav and I were engaging organizations and individuals and we were pleased to see we had over 40 applicants or nominations that came in. We have tough decisions to make but feel pleased with the representatives who were able to select and believe they represent relevant and have deep experience in these areas. So we're pleased with the outcome. Our first meeting was on July 11 and it included the overall orientation to the working group by John. They talked about rules which were important to hear as well. Then we had an overview of the data modernization issues, similar to what we received here at our first meeting and they also reviewed our terms of reference. What I thought I would do is remind you all of the terms of reference so you have them in mind. Last time we talked about them was several months ago. From a cdc authorities perspective, the questions is how to support common approaches to data sharing and access for public

health data. Second area is data exchange. How the structure and use of modern public health information eco system can ensure the partners receive value through participation. For example, through sharing of harm ONized data to jurisdictions. The third category is forecasting and analytics and the questions we're wrestling with is how should cdc provide forecast to integrate public health activities and address health equity? Fourth is related to work force. And how cdc can work with partners to support the public health enterprise by increasing access to data science and technology still sets and staff. Fifth category is breaking down silos which seems to be a common theme among the working groups we've had earlier today. That is related to what agency wide activities would benefit from all coordination of all cdc approach. And then the last sat GOER is related to sustainability. How can cdc work with partners to address barrier s to data modernization and sustainability related to funding. During the first working group, we ran through these terms of reference and the working group itself identified the concerns about data sharing and the first two terms of reference as their priorities and the cdc had identified these terms of reference by priority so they were prioritized by the cdc and the work group. I'll turn it over to nirav working through approaching these addressing.
>> Thank you. Next slide, please. So in our meeting on this past Friday, we heard from the U.S. digital service and and the onc and you'll hear these themes over and over from what Dr. walenski spoke to about today to the other work group reports out and data sharing was a top of mind. What came out in terms of early priorities was that everyone agrees that we need much more focus on standardization and standardization doesn't have to be something that's impossible to attain. We can actually start with the floor and work up from that floor on what are the minimal things we need to standardize on. It can be phased in and that it includes state and local public health at the table as we discussed standardization. Certainly standardization must apply not only to state and local and territorial public health but may even start with the cdc in terms of the cdc focusing on what they -- how they ask for reporting. What systems they use, with an attention to data quality and ultimately it's not data for the sake of data. It's about its impact and use. All of this while not creating undue burden or unsustainable cost and recognizing the work force challenges that everyone in public health is facing. Other areas that we have discussed as raising up include relating to public health law with issues of privacy sharing, disclosure, governance, data authorities which is a theme you'll hear over and over. There's a bill by representative cain out there right now on this issue and then finally, the ultimate goal of all of this data work is really about being customer focused and remembering that the American public is our ultimate customer, interoperable, transparent, interdependent with state and local public health, private sector friendly and perhaps most important, response oriented. Next slide. So we have a lot of work coming up. We're going to get voices from outside of this group and as Julie mentioned, there were 40 people who volunteered. I suspect there are many more out there that we're going to call upon and please don't hesitate to reach out to Julie and myself with any and all of these topics and beyond. Next slide. I'll end by saying, finally, we're very lucky to have incredible support from cdc staff in the form of Jen and Dan and supporting staff Taylor, agnes and many others for which this work could not happen. Open for discussion.
>> we'll open the floor for discussion as before. John, if you could manage the room, that would be great.
>> Absolutely. And to those that are participating virtually, please use the electronic raising of your hand and that will alert us to your desire to ask a question as well. Dr. Taylor?
>> thank you to both of you for the introduction and the slides. The one that catches my eye is the forecasting and analytics. These difficult times, they also present opportunities and it seems to me that the focus analytics group, the new group at cdc as well as with academic partners presents an opportunity for readiness. I'm a lab person, developing emerging pathogens, older pathogens that are reemerging like polio for the cdc and the infrastructure around the country to be ready to receive the incredible opportunity and one that I would like to hear more about and be involved in. Thank you.
>> Yes. We've talked extensively with Dillon George who is running the new cfa and obviously the cdc has taken some steps in this direction with data from waste water and other novel sources. The challenges, how do you work with messy data, incomplete data, data not from all 50 states and yet work with it in a way that's actionable and drives decision making in real time as opposed to waiting for the perfect data fed and building it which we'll get to and I think Dillon is well suited to help us learn how to get there.

>> Thank. And thanks for the presentation. My question has to do with how the work group is thinking about challenge they face at cdc that a lot of data related to public health is not necessarily the core data responsible of the cdc. So for example, cms is tremendous data related to public health. On the one hand, cdc has the absolute responsibility to make sure the data systems are working. On the other hand, driving too much attention to those might miss the big picture of what can be used for public health. When you talk about engaging with the private sector sources, how do you think about these incredible data resources that exist outside of cdc but within the federal government and the relevance to the work of the cdc and the work group?
>> So I couldn't agree with you more. I feel like that is such an important aspect of the work we do is when we think about social determinants of health and other sources of data not primarily cdc responsible. cdc plays a major role in helping to bring these things together, but what I do is I keep going back to the terms of reference and that wasn't necessarily something that was a top priority for us and we haven't embarked on deep discussions with that topic yet. That does not mean we will not. We really focused in on the top two terms of reference because they were listed in priority from the cdc perspective and the group was focused on data sharing which is why we talked about the public health certification process themselves. So I totally personally really agree with you about the importance of having these other sources of data and cdc's role in bringing it together. Because of the terms of reference, we haven't focused on those just yet. I think this was something we're considering.
>> I received a couple of messages from people online that they can't hear as well so could I ask for all the people that are in person to move their microphone as close as possible. Everyone is wearing a mask appropriately so -- but move your microphone as close as possible and then speak as loudly as you can. Dr. Goldman?
>> Thank you. And Josh, members of the working group, I think that that has actually come up and -- but not as just one way street that they have data that cdc needs but that cdc also has insights and can help because many of these other agencies are trying to move into addressing social determinants or environmental determinants of health and don't actually know how to. And the data standardization processes that cdc does could also help things like having better data on social determinentsdeterminants. There's so much missing that could be there and clinicians would like to know how to use the data but I think the other thing that I think, you know, and I think it was mentioned but I just wanted to highlight it. Pragmatic reality of the amount of money that is in the public health system for being able to create new data systems and for being able to adopt new data systems compared to health care and, you know, those of us who bridge across those spaces know how much money health care paid to adopt the ehr's. Public health has nothing like that in the way of resources so there's a sense of wanting standardization but also needing to understanding why, maybe prioritizing. Maybe some areas are more important than others. Maybe there's going to need to be a phased approach of some kind. Maybe, you know, a phased set of standards that everybody adopts, that everybody -- that others could go further beyond that. You know, how to add pragmatism into this given the resource constraints, especially that the state and locals have. They're not going to do what their local hospitals do in terms of spending money on putting a new system in place.
>> sure. Yes. Totally appreciate this and I absolutely see the point about social determinants data. So many different sources in the federal government. There's also just such important data within the health care system for really core public health surveillance activities that we've seen a lot of use during Covid. If you think about long Covid, there may well be data in the Medicare program about long Covid. There are so many different issues where data from these -- and what -- it seems to me sometimes that the public health departments are so eager to use it that the agencies that have the data are kind of curious about sharing it but really don't know how to make it usable for public health departments and the cdc could play an intermediary role in that and I totally appreciate you have to take care of business with some of these core issues of standardization but it does seem like an incredible opportunity at the moment given the level of ENgagement we did see to keep going in that direction.
>> Dr. mora?
>> One question I had was concerning the use of electronic health record data, did you -- how much of that did you deal with? There are obviously an incredible rich source of data but honestly, accessing them in any meaningful way can be extraordinarily difficult. I mean, in theory that was the purpose but when you try to do it, it somehow doesn't happen. I don't know if -- so my question is, was that in your terms of reference, and other than saying you should do it, were there any suggestions for how? These

systems in some cases were built, it seems in some cases almost so that they're really not meant to be used for research purposes, really.
>> I'll start and maybe then you can fill in. That is core to our conversations. The onc discussion about certification for public health agencies is to standardize the I.T. infrastructure to allow for exchange of information more than they have in the past. So it really is looking at how it is those data become available from a public health perspective. Looking at establishment standards that are necessary to allow that to happen so that's what we focused on last Friday. We had U.S. digital service came in and gave an assessment, did an assessment for cdc systems, came out with recommendations regarding the need for this certification and standardization and then onc came and talked to us about the plans for public health certification itself. But like I said, we have an taunt to look at that which is that effort and think about what cdc's role can be as it relates to implementation of that certification. cdc will have a major role to play which means engaging with state and local health departments, phasing things in which is a critical component. You can't just expect with the flip of a switch this is going to happen and making sure the right parties are involved in conversations that have developed out. I think that is something that's being contemplated. We hope to have health record systems, we have a representative from the himss who represents the pool of electronic health records on the work group and we want them to talk to the group as well.
>> The only thing I would say is that -- and I'm sure you dealt with this also. You know, the owners or whatever of those data, typically they're not state and local health departments. They're these health care systems who may not really be that used to sharing the data which I assume is another challenge.
>> Yeah. Actually, there was a great example given with one large hospital chain that's national has to create 190 different variations to report across the states to all of the various jurisdictions so as Mickey put it, it's about the pictures and the catchers -- pitchers and the catchers being standardized. Those that want to send the data are happy to, they want to. But at great expense it creates all the expectations. We're talking about the floor on both sides so that at least we get vital information early on and build on it in phases.
>> David, there are no more cards raised at this point. So let me turn things back over to Dr. shah and Dr. moritz.
>> I'm wondering even though I'm a member of the work group if I can ask a question.
>> Absolutely.
>> I think this is a great discussion and I was reflecting back. You know, my days of working in communicable disease unit in the health department, I know one of the issues there was that the information that we needed from the health care system was only part of the information that was actually needed to do the public health job so there was an enhancement, if you will, that was needed as each case was reported with medical information. Then there was a set of activities that the health departments needed to conduct to do the proper investigation, assure contacts have been identified, et cetera, that ultimately needed to be part of the case record, if you will, within the health department. And a challenge at the time was that not all of that information was information necessarily that cdc was interested in or necessarily should be recorded, essentially. So there was a split into two types of information. One the generic information that was useful to the cdc and second, the additional information that was health department collected that was critical to the health department investigation. I know we're just starting on this road but how too you think we should approach that and in particular when we're thinking about certification and potential expenses associated with that, whether or not that additional critical case information that's collected locally should be included as part of the certificate -- certification process. I'm wondering if you have any thoughts A that.
>> that was brought up on Friday. There's all of this information that's captured and I think -- I'm just going to take this off. Is that better? I don't want to put my mouth on that. So the question was raised in the working group itself because there are many former or current state or local health officials who were talking about how much data they collected, isn't necessarily required to be reported to cdc so that's why it becomes a conversation about the floor or what is really required for -- will be required for the certification process and then also establishing a phasing in of this certification expectation so that it's not like flip a switch and it's also not all data that are necessary, all data that are local and state level is collected but what is essential for the cdc to have access to that.
>> The challenge is going to be, again speaking historically, that we don't enable the need for different sets, one for the cdc and one for -- [Inaudible] so we have a lot of work. I know you all know this but the

information is amazingly -- this issue is amazingly more complicated. And John, I do see that Dr. medows has a question.
>> I wanted to agree with you, David. I think we bring up a really important point and that is, what we have traditionally been provide to go -- providing to cdc may not be what we need going forward. It may be a robust need for information so going beyond the study and putting in the integrated data sense including health care accounts, pharmacy and all of those data sets coming together. So thank you for bringing it up. >> thanks, Dr. medows. We are more or less of our time here so any last comments before we move on?
>> I just want to echo a thanks to the cdc staff who have been supporting this work group. Dan, Jen, agnes, John have been incredible supports for this effort and we would not be where we are without your support so thank you so much.
>> Great. Thank you for a fantastic report. We look forward to the next meeting. It's important and very tough issue. Let's now shift over to report from our next working group on laboratories and I would like to introduce Dr. Josh sharfstein and Dr. Jill Taylor giving us an update. As you may remember from the last meeting, there are terms of reference for each of our work groups that require a vote. At the last meeting, the terms of reference for this particular work group was still a little bit in limbo as we finalized it. So at the end of this session, we're going to need to take a vote to approve the terms of reference that have now been filed. Now over to you, Josh and Jill.
>> So I'm going to start and then I'll turn it over to Josh midway through. Could I have the next slide, please? Josh. We should have made that printing a bit bigger. This is a work group. When we asked for people who are interested, we had over 30 applicants which was great. And we have members there from -- it was important that we have membership from the range of laboratories in the health system, in the U.S. So we have commercial laboratories, we have academic medical centers, we have public health, we have industry and we have academia with experience in the sort of leadership level of public health so we're really, really MREELZed with this group. It's a great team. Could I have the next slide, please? So we have had one meeting Friday, June 17. And similar to the data and surveillance group, we had guidance from David Fleming and John and Lauren on the rules of how we should work and that was very, very useful. We reviewed the purpose of the work group and we'll show you that in a little bit. Dr. pirkle, who has been working very closely with us gave a very detailed review of the cdc's laboratory quality plan which is being developed and how that plan will address previous issues. We reviewed the terms of reference which as David said were -- had been admitted slightly and we started to develop a plan of how we would accomplish the work. Next slide, please. Next slide, please. So this is the purpose of the work group. Advice and work products regarding the implementation of the laboratory quality improvements across the agency with the long-term goal of a gold standard level of quality using advanced laboratory science. I think that using advanced laboratory science is incredibly important. We have to remember that cdc has multiple functions, not only diagnostics but surveillance and directive research so whatever advice we give has to take those if you thinks into account. Next slide, please. I'm going to go through very briefly the terms of reference. It's a few months since we reviewed this and since there's a vote, I think it's important. This first one is a practical issue. Remember that cdc is the ultimate laboratory of last resort. And there are times when the cdc receives specimens which can be quite rare. For example, spinal tap giving a csf specimen which may be a little longer than is optimal or slightly lower volume or something like that. And the question is, is there a way, under clear regulations, that the laboratory can still test that specimen and give a report? This is very important. It happens in many reference labs putt we need to be able to take full advantage of the specimens that are available, especially if they're rare. So is there a way that the specimen can be used with the guidance of the clear lab director and an appropriate disclaimer of what that should look like? So it's a very practical terms of reference which is very important to cdc. Next slide, please. As I mentioned, the cdc is writing a quality manual for microbiology labs. In the center there are many of them and the question for the lab work group is, does this provide a quality framework to ensure high quality lab standards going forward? And so we will be reviewing that, the framework. Next slide, please. This is issue number three a very interesting one. I think that coming from a state lab as I did, I really understood the importance of partnerships and remembering that it's a lab system, it's not just one lab and so the importance of clinical labs, academic labs, commercial labs and how does the cdc best fill those frameworks from a laboratory perspective you heard from a data perspective and so this is a very important one that I am incredibly interested in because it's so important for the future both for -- especially from the

perspective of maintaining this state of the art technology. Next slide, please. A common problem in government laboratories at the moment is work force. The pay rate, being quite transparent here, the pay rate in government laboratories is nowhere near what it should be and what it is in the commercial and academic field. But we still need to recruit and retain outstanding scientists. So how best to do that. This is not a simple task but we need to take steps to do that. And then the last one is a very interesting one. Congress has requested that a Task Force be established to evaluate factors contributing to the early issues of the cdc's first Covid 19 test. The lab work group has been designated as the Task Force and so we need to provide a report on that issue. And now I'm going to ask Josh to take over.
>> As you can tell from this group, there's unbridled enthusiasm in the lab community to follow Jill Taylor wherever she leads. It's exciting. Next slide. Let me just pause as we're going through the slides to particularly thank Dr. Jim pirkle and everyone supporting the work of the group which is incredibly appreciated. So Jill mentioned the Congressional language for a Task Force so we thought we would show you the whole language here. Basically calls for a Task Force with outside stake holders and subject matter experts to evaluate what contributed to the shortcomings of the first Covid test, including laboratory irregularities and what policies, practices and systems should be TAEB established to address the issues in the future. They shall also examine the processes for the developmental and deployment of diagnostics, including communications and electronic lab reporting with the clinical, commercial and state local public health laboratories. Based on the conclusions of the effort, then turns to the cdc to develop an agency-wide coordination plan for developing and deploying assays during the public health emergency. That's going to be our first major task in the work group to address it so we can do it. We have an organizational meeting scheduled for the end of the month to set up the ways we're going to break that down. We'll be reviewing documents, talking to people from the cdc and elsewhere in doing this work. We have just a great group assembled to work on it. Next slide. Here's where I was supposed to say what we're going to be doing. We'll be looking in addition to what went wrong, what cdc has put into place to address what went wrong and other issues that relate to the charge with the next meeting on August 24 to kind of come up with a game plan. We'll be bringing, you know, the findings and results back to this committee. We have not worked out the full time line but it may be closer to the February meeting rather than the November meeting when we're able to do this. And the report may well hit other issues in the terms of reference given how broad the report language is. Next slide. Yes. I think these expectations for November 2022, the more Jill and I think about that, we think it -- we can give an update on the work in November but there's a lot to cover and we may need until the following meeting. Next slide. I think that's it so I think we're ready for discussion and hopefully a chance to vote
>> Thank you so much, Jill and Josh. I open the floor to any questions about the presentation or about the terms of limits.
>> Great. For those in person, the -- I see Dr. shah and Dr. Goldman have questions. And Dr. Mc keenis as well. I just seen your name go up. We'll take you after Dr. shah and Dr. Martinez.
>> thank you, Jill and Josh. I really appreciate the incredible work you signed up for. I don't know that you fully understand yet your task but thank you anyway. I'm wondering, does the purview extend beyond the public health labs and into the space of the private labs and the broader response and approach? Because I know there was a huge new lab work force created, for example, with private labs springing up to provide testing and that's part of the overall response. Does your purview include that and what do you think about the private space beyond just the public health labs?
>> Jill first and then you can correct me. I think that we're N trying to swallow all of the lab response to a public health emergency. It's really focused on the development and deployment initially of the diagnostics that are critical. However, that task does involve every lab, including commercial labs and state and local labs. And how they relate to the development and deployment of diagnostics initially. So there's obviously the food and drug administration, many, many different issues that relate to how to regulate the market for lab tests, all the different lab tests, all the different ways, the whole lab strategy. I think this is a little more narrow than that but how you get to the test at a reasonable scale to make a difference so controlling, you know, an infectious disease, emerging disease, I think that's relevant and that does pertain to commercial labs. That would be my answer. Jill?
>> I'm going to correct you, Josh. I think that there are multiple initiatives happening in the health care system, the laboratory system that I'm aware of and I hope I can bring that knowledge to our discussion so that it is Concordant rather than in opposition because I think it's -- we've been talking about a

pandemic for many years and now it's happened and it's certainly taught us some lessons and that one system is not enough. You need everybody in the system. So that's kind of happening in parallel and is happening in parallel.
>> Dr. Martinez?
>> Thank you, John. Great presentations to Joshua and Jill. You know, given that issue number four and number five makes me think there's a really good opportunity, tremendous opportunity to look at those through the equity lens. Who is now our lab work force? What -- is it diverse? Does it represent really the community? I think Covid 19 really showed especially the public's response to how and who actually is doing the development and then the deployment. I think it's elevated the pandemic, the interest in that and also it's related to the trust factor of the cdc. I wanted to throw it out there and see if there was any thought or if there's a discussion that I'm hoping it's something you'll take into consideration.
>> thank you. I think that's a really important observation and something that we can discuss with the work group. I think there's no restriction on the kind of policies and systems that we should be discussing that could be put into place so that's absolutely something that we can look at.
>> I would like to add to that, that there's been a great deal of funds put into workforce development. Part of that is being handled with the cdc and my association of the public health labs for internships and fellowships in public health labs at least. And local health -- including local health labs and we have certainly been working very hard for diversity and inclusion and equity in our work force and are tracking that. So it's certainly something that's very important to us.
>> that's excellent to hear. Thank you.
>> Dean goldman.
>> I just wanted to make a XHEN about the last term of reference. Number five, to caution against just honing down on the minutia of the laboratory procedures that were developed and make sure on the committee that is looking at this that there are people who understand things like management science and systems engineering and can evaluate in the bigger picture how the laboratoryians fit within the decision making process with the cdc, at what point in time flaws were identified, why that wasn't communicated at a higher level earlier, the kinds of things that lead from a technical error becoming a disaster. I'm thinking about the o-ring problem. You know, on one level that was just a little technical thing but the communications and management issues that were embedded -- that that was embedded in is what turned that into a disaster. And that's usually, in my experience, the case. Just make sure there are people who know how to do the analytics on the bigger picture in terms of how the system is working, how the resources flow, how information flows and so forth that lead to a decision that results in harm. Thank you.
>> Dr. ADA mora?
>> I just wanted to sort of expand and underscore Dr. shah's concern and question and you actually sort of already alluded to this. But I guess it goes with the idea of making sure that the terms of reference are not too restrictive because from my vantage point as a clinician, and I'm not a laboratoryian but part of the problem with the Covid whole lab sort of debacle actually wasn't just cdc. I mine, it was -- the big structural problem was the fda and how that affected individual labs like hospital labs who actually knew how to do the test but seem to have been prevented from actually implementing it and using it by fda requirements initially if I understood what was going on correctly. So that I think it would be helpful, yes, we are all responding to cdc. But this was not just a cdc siloed problem. It was beyond that. That's just a hope that that will be addressed as well. It sounded like you were thinking about that and saying that other agencies were looking into it as well but it's just a suggestion.
>> Dr. morita?
>> thanks for your presentation. My question relates just for transparency for the rest of the group, co-chairs of the various work groups met earlier today and we were talking about common themes that were emerging in our working groups and one of the themes that emerged that was common was siloing of the work, whether it happens in the data or in the laboratory or health equity. I take to heart what you just said in terms of not being restricted by the terms of reference. Do your current terms of reference allow your group to explore the reference of siloing so we could come up with recommendations to the challenges of the filing of the work in the organization?
>> Thank you for all these different comments. I think we're very happy with the terms of reference. We think it gives us -- you know, it asks about not just policies, practices but systems that need to be put into place which we think gets to some of these different issues. I think that understanding the role of

cdc and the deployment of development of the test is necessary to understand the environment that cdc is in and so I do think that while this is not going to be primarily a report about fda standards, I think it's going to have to relate to how lab tests get developed and made available more broadly. And I think -- so I think that it's quite likely we'll pump into some of those issues as we get to the point of, you know, what is a system that should be pursued to develop and deploy tests effectively.
>> David, there are no other cards or hands up.
>> thanks, John. I do want to raise one issue and Jill and Josh, maybe you can respond or maybe even for John. But it has to do with the reporting mechanism that last terms of reference around Congressional language that we need to be responsive to. The Task Force has been created. Correct me if I'm wrong but there's still a bit of uncertainty whether that part of the working group's work would come back to the acd for affirmation or may alternatively go directly to Congress. I didn't want to set expectations for the role without knowing for sure how that's going to work. So why don't you just say what the current state of knowledge is on that point.
>> Thanks for that question. I believe that we have a Teresa durden on the line CHO -- who is the acting director of the office of appropriations and she may want to speak specifically to that based on the fact this was Congressional language. Teresa, are you on the line?
>> Yeah. I am. Thank you very much, John. Thanks for that question. I think that that is something we're working through with the department in terms of how the advisory committee work group's recommendations are going to be transmitted. So that has not been settled yet but that's something that's in discussion.
>> thanks so much for that information. That doesn't affect the terms of reference. So in terms of reference were provided in your pre-meeting materials and we just had a review of them here. I would like to call the question and take a vote to approve the terms of reference. We will follow protocol here so I would entertain a motion for adoption of the terms of reference laboratory working group.
>> So moved.
>> thank you. I think that was Lynn it sounded like to me. Is there a second?
>> second.
>> octavia, I believe.
>> I think we had two seconds. One in the room and one virtually.
>> Great. Second squared. Any further discussion on the terms of reference?
>> No additional hands or cards are raised.
>> Great. So all those in favor of approving the motion, signify by saying aye or raising your hand. Are there any opposed? Any abstentionsabstentions? Great. So the terms of reference to the laboratory working group passed unanimously. Thanks so much for that and thanks, Jill and Josh, for your presentation. Do you have any last words before we go on our break?
>> Jill or Josh, any last words?
>> Just thank you to cdc for giving us this very interesting assignment and thank you for all the support we've had. Thank you.
>> and I hope some take to have a cable tv show with Jill.
>> I would watch. OK. So the good news, we're a few minutes ahead but given how hard we've worked this morning, let's break and reconvene at the time that was scheduled in the agenda which is 11:00. If we could all be available at 11:00, that would be great. See you then.
>> For those of you in different time zones, that's at the top of the hour we'll reconvene.
>> On zoom I see Dr. medows. Michelle is on. Fantastic. John, can you hear me?
>> Hello, everybody. It is the top of the hour and so we will be beginning the meeting in 30 seconds.
>> And John, we have a full quorum for our video participants. Can you let us know collectively when we have a quorum in the room? We'll get started.
>> David, we are gathering and almost ready to begin again. Could I ask everyone, please, we're about to start the meeting. I believe we once again have the same number of acd members in the room so we still have a quorum.
>> thank you, John. Would you mind just saying the names of the acd members that are present? I've done for video already.
>> David, hold just one moment, please. Could I request now that we start, restart the recording. Please restart the recording. I was unable to hear what you said.

>> I've already announced for the recording that the video participants and myself, Dr. Martin, medows and Albert are here. Would you say the names of the people in the room so that record would show we have a quorum?
>> Sure. Shall I just name the people in the room?
>> Yes. On the acd.
>> Dr. Hardman, Dean goldman, miss Gary, Dr. ADAmora, miss lupe, Dr. morita and Dr. shah are in the room.
>> Perfect. We're going to proceed for the third of our working group reports on the health equity working group and I would like to introduce Dr. dawes and Monica valdes valdes-lupi. You're now up.
>> Thank you so much, David. I'm really excited about our working group. We had our third meeting in the first in-person meeting yesterday and just to remind you, our health equity working group is striving to change the conditions in the nation through the work of the cdc and next slide, please. We have 19 members, very diverse members representing different geographies, rural and frontier as well as urban and suburban, we have folks representing the LBGTQ + community, racial and ethnic minority populations, homeless, you name T. We've taken some pain to make sure we're as diverse as possible. You'll see on the slide, we have nine acd members that are part of this working group. We have myself and Monica, ADA, Michelle, David, Rachel, Rhonda, Julie and octovia and then in addition to the acd members, ten additional members were selected out of almost 100 applicants for the working group and you can see that they represent quite a diverse interest and population groups that we believed will complement the work of the acd members. So with our efforts, you know, recognizing that we are a diverse group of folks representing diverse interests, we established a set of guiding principles. Five guiding principles. One presuming good intent and acting in good faith to serve the best interest of the acd and the communities we serve, our second principle was fostering a culture of respect and appreciation for the lived itselves, understanding the power of collective voices and collaboration, our fourth or third principle is upholding justice, equity and ethical standards. Our fourth was generating solutions and then lastly, our fifth was to committing to a community centcentric approach to reduce inequities among all population groups. I'll turn it over to Monica.
>> Thank you. You can get go the next slide, please. During the initial meetings, we reviewed the terms of reference and landed on these three priority focused areas. THEERT not in any prioritized order, by the way, but these three priority areas really drove how we broke up into separate task areas and we'll talk about that in terms of sharing reports from our in-person meeting yesterday. The first focus area encompasses the needs to enable and ensure meaningful involvement of XHUNTSZ in agency decision making, the development of health equity policies, ways in which programs are also implementing and evaluating the work they do. And so really, this is emphasizing the need for a meaningful community engagement and the lead for this particular task area was Daniel. The second focus area really looked at ways in which to align and restructure as necessary agency policies, resource allocations and program practices to maximize the ability for staff and partners to address health inequities in their day-to-day work. This second focus area is really addressing one of the things we heard from work group members about how to operationalize and integrate equity principles and practices into the day-to-day work and the programs up to the administrative teams here at the agency. The third area includes a focus on -- and I'll give a report out on that second piece. The third is being led by David Fleming, the chair of the acd, and focused on the need to elevate and expand activities to measure and address the upstream factors and their consequences, looking at the social and structural determinants of health but contribute to and continue to drive health inequities and these persistent equities we see in the health outcomes. So I think you can go to the next slide. Julie began to mention this in terms of our commitment as work GRUP co-chairs to work across the three and begin to lift up and emphasize some of the cross cutting themes that we're learning in our conversations and discussions with work group members and so before I hand back to Daniel to begin to share updates from conversations yesterday that we had, just wanted to reinforce the three that are beginning to emerge and I imagine that the list may grow. The first we've heard in the two other work group reportouts needing to be customer folk used. And so when we think about the customers, who are the customers? And really looking in some instances beyond the usual customers and consumers, the stilts. State and territorial agencies and looking at it more broadly in terms of the different communities, whether they are community members, community non profits, industry and the private sector and other partners. Second theme that I would say is EE memoryinging is cutting across the three work groups is the need for breaking

down silos. Internally at the agency and in the ways in which cdc is working with external partners and this you will hear, I think, repeatedly in our updates to the larger committee. The third I would say is around workforce development. Both internally and externally and thank you, ooctavio, for lifting that up in terms of your observation. It came up this morning in earlier conversations and really looking at diversity, equity, inclusion in terms of pipeline programs and workforce development opportunities here at the department and also in the fields with the state, tribal, local, territorial health agencies. Those are the three right now and I will hand back to Daniel to lead us through update on task area one. And thank you to all the cdc colleagues who have supported us in terms of preparation and logistics so a big shoutout to Dr. Laverne, Shawn, Carrie coldwell, una, Brigette and I'm sure I'm forgetting one.
>> Carrie.
>> and Carrie. Thank you.
>> Yes. Thank you. So what we were charged in terms of the three task areas was to look at the barriers and facilitators of our respective areas. And so in task area one, we looked at the barriers in terms of policies and programs to address and ensure community engagement and meaningful community engagement. And so there were several points that were raised early on. cdc has made great strides in the role of racism and public health equity. Leadership is critical to sustain this movement and ensure we broaden the scope of this agenda. We talked about authentic representation of and engagement with the community is critical and that this requires more than just bringing people in to have a seat at the table but ensuring the community members are empowered to create change. That was a word that kept coming up all the time. The quality of engagement is an important consideration. Third point is that as we engage communities, we also must consider who is at the table and how this is decided. Are we considering the diversity of communities? Our persistent biases shaping who gets to the table? Very important considerations that we wanted to lay down. And then critical issue that came up was funding opportunities for community based organizations so we talked about cdc providing funding and resources through a systematic and equitable process, funding directly to community based organizations which reduces administrative costs and directs funding directly to communities most impacted through community driven efforts and capacity building and infrastructure support to enhance sustainability of interventions and community impact and then ensuring that local health departments and community based organizations are informed and aware of funding and resources that are available to them. So once we have that initial conversation, we heard from two really dynamic leaders. We heard from Dr. Scott who was a former director of the Rhode Island department of health and a past president and she went into really two ideas that she advised us to consider. One is the idea of health equity zones that let the community's voice lead and how they organize the health equities in Rhode Island. She talked about braided funding that supports community identified priorities and drives collective action through authentic community engagement so we thought that was a pretty compelling model for which the cdc could advance. Then we heard from Alice chen, former senior adviser of made to save and their campaign to really mitigate the impact of Covid 19 in communities of color and what that outreach campaign looked like and how we could replicate that between communities of color and the health system, community partnerships, how that worked, how they created a backbone organization. We looked at funding and program design support as well as technical assistance and how you create an eco system. In addition to that, afterwards, we had a robust conversation with -- I'm sorry? Can you hear me now? Sorry about that. Can you hear me? Thank you. Thanks. OK. So in terms of the conversation that we had following the two presenters, we talked about the disconnect now between cdc and where funding and resources are directed, the members of this group believed that cdc funds primarily state departments of health and that they could enhance direct funding to cbo's. There was this idea or expectation that resources trickled down but they don't normally do in a very meaningful manner and when funds are trickled down, additional costs are ensured through past community functions. Secondly, they talked about funding is usually more service or performance based versus infrastructure and capacity based to strengthen sustainability or expansion of services. Focus on just getting services to the community versus long-term change. They would love to see the cdc focus on those efforts and then the idea that funding may be too restrictive was one that kept coming up time and time again and so this whole flexible approach modelled after what we heard from Rhode Island perhaps. So after that, we talked about facilitators and we discussed the structural DPOEN components how the cdc does this work and what makes things so challenging and we broke this up into perhaps we're advising in terms of our working group. Looking at things from what is tradition versus what is required by law and if it's required

by law, how do you change the law, how do you change the tradition, right? Is there racism or prejudice in the traditional approaches or even the legal approaches? There's a level of advocacy that occurs much more or before funding comes to the cdc. How does that really operationalize? Then we talked about what are some lessons learned in community engagement and capacity building within the agency? How can infrastructure development be incorporated into the nofo's? And some ideas that came out of this was to perhaps bring back into existence this community disparity committee or advisory panel for sorts for health equity that would also aid the office of minority health and health equity with the Sprintings that are currently in place at the cdc working on revising nofo's, adapting language or updating language following review from the office of the general counsel and perhaps looking at what nih has done with rfi's to gather feedback as an additional step to engage community. Then we ended on the discussion of what is a systematic and equitable process for identifying agencies across the country that exist. We know there are 3,000 local health departments that could be a task to identify it, much less the cpo's but is there a systematic and equitable process for how we would do that to begin with so we could meaningfully engage with communities? That sums up task area one.
>> we began the conversation, our time together with two presentations. I want to thank Dr. montero for connecting us with colleagues at the Colorado department of public health. Chief of the health equity branch in Colorado and shared some specific perspectives, reflections related to their Covid health equity grant they've received. And then we also had a local public health example with former colleagues from the Boston city health department. We spent time after those two presentations engaged in a dialogue of first sharing questions. So we started out with just putting questions on the table so I will try to synthesize four key points to the best I can do here. So quickly, the first was around the need for cdc culture shift and the inclusion of diverse groups for setting policy agendas and in this moment, you all as an agency, a department, have a unique and important opportunity to build institutional capacity and change the systemic environment. Questions that we have raised were about how does the cdc see itself in the health equity work. We've heard about the roles and authorities in terms of data collection and pushing out the evidence base but there were questions about how you work towards identifying solutions and the level of accountability and making sure that partners know about these. The second thing that I would like to lift up is around procurement and nofo applications and reporting requirements. What should be included in standards, policies and guidance? We know that there's a desire to provide some flexibility at all levels without being too prescriptive but we know that especially in the Colorado example, they really appreciated the ability to make advanced payments to community based organizations in terms of reaching the smaller non profits who might not have been the usual partners that the health department engaged with prior to Covid but the challenge that they shared is that their department and many of the state agencies aren't allowed to provide advanced payments that the contracts are cost reimbursement and so while it was not prohibited in the language of the grant terms from the cdc, there's no specific guidance or examples that were provided and so that was just one example in terms of what the state health department had shared. The city health department in terms of their equitable procurement process talked about benchmarking and I guess the cautionary tale would not be to set benchmarks in terms of x percent of grants or procurements to community based organizations or minority, women owned businesses because setting a minimum floor might have an unintended consequence of having your departments and your programs to stop once they met that minimum threshold and not try to continue to grow and learn about ways to be more equitable in the resources that are being allocated to communities. So a lot of the conversation in the task area did focus on some barriers and opportunities. The third area that we talked about or made the short list, I would say, is project officer engagement and wondering, what is the framework or how are program or project officers trained? Because it seems like it was very siloed in term of the technical assistance, the guidance and perhaps support that agencies receive from their project officers and should there be -- this goes back to the first area, a shift in culture in terms of being the administrator of grand funds and shifting from that mindset to a collaborators and partners in achieving community health and health equity. And finally, the fourth is around communities of practice and action. Both internally at the agency so that there is that continuous growth mindset and learning among the different centers, branches, divisions, programs at the cdc and also trying to understand better ways of creating these opportunities for learning in very timely real-time ways in the field so the peer to peer sharing that sometimes traditionally happens among the national organizations and associations, how does that happen amongst the communities themselves and the important role that the cdc needs to

play in terms of these learning communities and action oriented work in the field. So with that, I'll hand off to you, David, with task area three.
>> Thanks so much. It's a real honor to be part of this working group, a special thanks to Daniel and Monica for their leadership. Task area three is to elevate and expand activities and measure factors including social consequences. Real action oriented idea. We had great perspectives -- [Inaudible] we spent a fair amount of our time getting to discuss really a strong proposal from what possible action steps coming out of this task area might look like. I'm going to talk about that recognizing during the meeting, by no means they're final but we thought in this very important area we might divide this into two action steps. One, suggesting that cdc take leadership in identifying and assessing measures of these underlying determinants of equity that makes them as accessible and useful as possible, including the localities, communities and public health programs and some specific examples of this kind of work by cdc might include synthesizing the current state of the arts, qualitative and quantity TAIFB measurements. There's a lot of different standards out there, measurements out there and really helping us understand that by synthesizing that. Second might be to initiate the process with partners and stake holders to assess the feasibility of common methods and measures across programs and jurisdictions recognizing there's always going to need to be individual approaches but where common approaches are possible to highlight them. Third is to pay special attention to asset based measures, KRID and community equity and health equity. Public health has a legacy of primarily thinking about measures that are deficit measures that are oftentimes harder to operationalize into strategies. And there should be a special focus on methods that are current and locally available, potentially incorporating data in both the timeliness of the information and geographic scale. And then finally to enable use of funding, including cdc funding to incorporate these measures into monitoring and evaluation of public health programs. Second action step was that we're thinking that as possible, is that the cdc should take an agency-wide approach to integrating the strategies -- [Inaudible] across the range of all of the public health programs. Some specifics here might include linking this to funding to enable routine assessment of the effects of the determinants of health, equity on policies and environments protecting each problematic area, to assess conflict with other projects or interventions that are targeted towards the same neighborhoods. To identify and begin to incorporate strategies, including asset based strategies, improve project outcomes by modifying the most important dynamics created by the equity determinants on program and project basis and to incorporate the measurement of the efforts into problems and programs. Still a high level, maybe a little theoretical. We need to populate this with examples and need to get more specific, but I think we made great projects that have some pretty good ideas of the kinds of actions that cdc might be able to take leadership in to really advance this national agenda we all have for getting to that promised land. I'll stop there, Monica and Daniel.
>> Thank you. Next slide, please. OK. So just to recap, I think before we open up for discussion, this is the time line and between now and November, I think we can all agree that the work group has its work cut out and yesterday when we reviewed the time line, Daniel, David and I will be able to draft with the members our respective sections and hope to work to present preliminary findings, sketching out an outline at a high level across the three task areas. Some suggestions in terms of possible action steps for the cdc. The other piece I would add is that having heard the other work group report outs that we will work with a lot of intentionality in terms of cross work group, recommendations where they are cross cutting and so we will do that as well. And so I'll just wrap up by thanking again John and others who have helped the work group get to this point and look forward to the discussion.
>> thank you. Let's open this up for discussion. A lot of content there and I see octavio has a question.
>> thank you, David. First I want to commend Daniel and Monica for being great chairs but also for -- and I'll just add this comment of bringing on gale Christopher for the opening remarks. That was really amazing. For those that don't know, gale is the former chairperson of the board for trust for America's health. What gale was able to do in my opinion was contextualize the environment in which we all work and I think it's relevant to the work the cdc is doing and what we're talking about here today. One of the things they started was the Jeffersonian contradiction. We have a country that espouses equality but we have structured our environment based on a hierarchy on human value and that really resonated with me in why this work is so difficult. Health equity especially thinking how do you operationalize that? Within that construct she allowed three principles which is we have a system separation. Two, our legal system is designed to maintain this hierarchy of human value and three, we have an economy that thrives on the hierarchy of human value. So when you put those together, those are why it's so difficult

to change our culture, though we espoused really the galatarian values and I'll end with this. For everyone, and I'm para phrasing a quote of hers at the end of her remarks which is, what we should be is not what we are against because that doesn't get us to the future. In fact, it's what we are for. That's what it's going to get us there. I do love the discussions we're having. I think it's about getting there. It's about what we're for. Sue -- so thank you for letting me share those remarks.
>> Dr. shah has his card up.
>> First of all, thank you so much for taking on this important work. It sounds like you're going to be very ambitious and I'm excited. I heard a lot, I think in terms of structure process outcomes and I heard a lot about structure, whether it's culture or a lot of things. I heard a lot of processes and I'm wondering if your work group is going to get to specific outcomes we all aspire to as the focus of our work. For example, we heard earlier maternal mortality is something in black women that we know has been a challenge and we're not doing good. We're doing worse. Are there going to be opportunities or have you thought about specific areas of prioritization or focus for outcomes? Is that part of your charge?
>> I can start and Daniel will probably likely add. I think that came up in our discussion in the task area in terms of to what end. We didn't get into granular details so I will tell you, we did talk about that in terms of how do we weave this into the data modernization work group activities. Julie was on in my task area and I know at the state and local levels that is something that they're pretty explicit about in terms of accountability and in health outcomes in terms of improvements. So that is something that we discussed but without any specificity at this point.
>> For task area one, we did not specifically address the issue of outcomes. We basically looked at high level processes, looked at the structure and those are what the three meetings we've had thus far have been trying to educate us about what those R. As we move forward, that's a really good consideration for the task area.
>> May I make a comment here? I think growing up as an epidemiologist, outcomes are critical. I think one of the problems we've had in this area is that some of the measurement of outcomes has mortality as an example has been more advanced than the processes we follow in public health and communities to achieve those outcomes. I think in some ways what's missing and what lags behind is what meets that? What are some of the ways that MUNTs can work to achieve those outcomes? So I don't want to by any means lower the process of process. And then second, I do think that one of the principles here is that as we empower communities, communities will have strong opinions about which of the outcomes out there are the ones that are most important. So we can provide essentially information about measurement, about hopefully processes or strategies to get there but probably -- and I know you weren't saying this but probably not prioritizing outcomes.
>> Can I respond to that?
>> Sure. Dr. marita.
>> I think part of how I feel we're putting this more from a systems level perspective.
>> I think part of the way we're approaching this is looking upstream at the processes changes that need to believe. Believes when the systems and changes occur, the downstream health outcomes will be impacted positively and health equity will be addressed in all the health outcomes so I agree with you that health YUT comes are critical to look at but I think the focus is on the upstream practices and the processes and systems in place to impact all health outcomes in an equitable manner.
>> thanks.
>> It's so interesting and I particularly appreciate the point that we're going to focus on what we're working towards and not so much what you're trying to avoid, although we're in a situation now where there is actually kind of a lobby against health equity. Used to be that you would say with the tobacco work, there's an industry that you're fighting. On equity now, there are people who walk around saying they're opposed to equity. Generally speaking that is outside the field of public health but not entirely as we may know from recent headlines so I just wonder whether the work group is thinking about advising cdc on how to be pursuing equity in a world where there really are people with expressed opposition to accomplishing that.
>> I think you're right. If I could just quickly respond, we -- I think Dr. Christopher in her opening remarks tried to describe the importance of those external forces perhaps pitting partners who have been working on equity into fighting infighting and recognizing the humanity that exists in the work ahead but I appreciate your comment in terms of external forces and barriers and maybe how to, if I'm hearing

correctly, how to counteract or build that into the ways in which we're thinking about the proposals that we'll put forward.
>> I don't think we actually understand all of the upstream causes of health inequity and health disparity. Over any lifetime, you know, people have been working on this and there have been ways and ways that we need to tweak this, we need to do that, do something else and these disparities have hung in there so I think we do everything we can. That evidence today points to it as being causal but that we rigorously focused on outcomes and are willing to say, well, if we're not getting to the place where we want to go, that we may have missed something and we need to go back and look at that and not assume we meet all the needs that need to be done to address the disparities.
>> I think we would agree with you and I think from the discussions yesterday, the only one caveat that I would share is that communities need to be part of defining what those success measures are or those outcomes we're working towards.
>> I would say that's not a new insight. But how to make that happen is an incredible challenge and I'm happy that you're taking that on but what constitutes community and how communities organize themselves is a constantly shifting landscape. You can't define this is the community and chose are the people you're engaging in five years. That's not how it works. I really commend you for taking that on as one of your major tasks.
>> I don't know the order here.
>> Please, David.
>> I was going to mention that Dr. Albert has a question.
>> thank you, David.
>> please.
>> thank you, David. I just wanted to make some comments listening to the discussion that is preceding these comments. I think that the concept of outcomes leaves out the concept of well-being, right? And I think that the part about looking at structures, leading up to so-called outcomes is extremely important because one of the things that relates to structural discrimination and structural racism which is the under belly of many health inequities are related to vulnerable populations leaves out this concept of, you know, population well-being. Part of what we need to do is actually focused on, you know, structures and we need to focus on dismantling structural discrimination as part of our health equity work. And I think even though we have, you know, at a population level people have been talking with organizing communities and, you know, having communitieses have a voice in processes, part of the reason why -- a large part of the reason why progress hasn't been made relates to structural discrimination. I think by focusing on the work force is really important in terms of having the work force be representative on the population as a whole, those who have lived experiences to make structural change is key. And I think last comment I want to make relates to, as we think about different groups, especially groups that have been largely discriminated against, it's going to be really important for the groups not to -- I heard the term infighting. For the groups to be able to harm ONize with each other. One of the tactics to not have any progress is to have the different groups fight with each other for their stake. So having groups align and work collectively is going to be very important to disallow and dismantle the outside forces that are not in support of health equity. Those are my comments.
>> Thank you so much. This is a really rich discussion. We are running over time a little bit, John. I can't see who has cards up there but maybe we could –
>> sure. Thanks. We have three additional cards up. Should we try to go through those three and maybe then break for lunch?
>> that sounds perfect and I suspect this is a conversation that will not be totally solved by the three comments.
>> Great. Dr. Hardman?
>> SHOOUR. I can be brief. Dr. Albert addressed a lot of what I wanted to point out. I will say, I think we do know a lot about the drivers of racial inequities and their contributions to population health equity and certainly the past three years or 2 1/2 years have uncovered even more of that for us. And I think one of the things I want to encourage us to think about, at least in the group working on the data and the measurement piece is the reliance on causality as a gold standard is not necessarily the direction to be headed in, right? Because of our alliance on causality, we have stopped short of uncovering racism. Because it makes it so challenging to tell that story and create that causal pathway and one of the things that Phillip lifted up in our work group yesterday, in the small group yesterday was the importance of

qualitative data to really -- and the fact that in that measurement space, we should be thinking about both the quantitative data sets that need to be used to both nationally and at a state level to tell the story but also the qualitative piece is going to be critical to how we move past it. I think that causality piece is blocking us in a lot of ways.
>> I just wanted to sort of build on what several people, including Dr. Goldman and Dr. Hardman has said. I think we do know a lot of the causes of structural racism but in addition to some of the concerns that you mentioned, Dr. Goldman, I think one of the things we talked about in our particular group three, task group three was some of nancy's work and her eco social theory and looking at the pathways and who benefits because that actually is a real key. I don't know that the cdc can actively do that because that is inherently political. However, having that sort of thinking behind building of variables and developing further models I think would be helpful. The other thing I wanted to do was sort of a friendly amendment to Dr. Fleming's excellent presentation of what we talked about. I also think that -- you know, I think that the idea of approaching this equity from -- and building variables from an asset standpoint is a really good idea. Largely because of decreasing stigma and also in search of solutions. However, I think it's important to exercise some caution because much of what the cdc, I gather, is doing and should be doing is getting more resources because it's -- now, the agency is challenged in every way, you know, from a resource standpoint, money, personnel, et cetera, and I think that it's important to be wise about this presentation of assets because I think that health care is not necessarily perceived as a right, public health is not necessarily perceived as a right in this country and there will be those who, upon hearing about all the assets, will say, well, sounds like you're doing fine. You know, so I would just -- I think that is an important approach but it should be used carefully with understanding of what could happen next and how that information will be used.
>> thanks. And then the final comments will be from you.
>> yes. Thank you. And I just want to reinforce what my colleagues have said. I do think we know a lot about the drivers of health inequities and I'm not sure that we -- and I agree with what goldman said which is we tend to try to do things to address them and tweak them but what I do not see is a will to really get to the root causes of those. And a lot of that is what Dr. sharfstein said which is there's a lot of pressure against that. I think in the past we've seen a lot of deflection that we need to keep admiring this problem, researching what it is instead of putting the effort spew changing the structures that have perpetuated this and now we're seeing a lot of misinformation and a lot of kind of actual deflection around what this looks like. So my request was, you know, we've talked about having in our next meeting a discussion about communication STRAT DPI -- strategy and I would love to hear more to address the misinformation being out there about health disparities as well.
>> Thank you so much. Any last comments from Daniel or Monica?
>> Well, I certainly want to applaud the cdc for taking on this really bold agenda. As we heard, they're right. Whenever we made advances and equity, we've seen retrenchmentretrenchment. I'm glad to see the level of engagement from the committee members on this, the excellent feedback we've received and of course, we thank the cdc team members for all of their hard work in helping us to get to this place. So thanks again and of course, to Monica and David, appreciate you both.
>> Ditto.
>> So a really rich discussion. [Inaudible]
>> we are now in the lunch break. We're about ten minutes over. I think we can make up some time in the later part of our agenda. Let's take the full half hour that is scheduled for lunch and reconvene promptly at 20 past the hour. We're adjourned until then.
>> It is the time that we said so –
>> David?
>> Yes.
>> We're down. It's taking a couple more minutes than expected for people to return to the room. But I think within two minutes, everyone should be back here. And sitting right next to me is Dr. Williams so --
>> fantastic.
>> very good news.
>> Exactly.
>> We have our presenter, if not our audience.
>> Is Jennifer there? Is she going to be on zoom?

>> She's there as well. She's sitting next to him. John, how are we doing? There we go. And John, are we ready to go there, do you think?
>> David, I think we now have a quorum. We don't have everyone back in the room but we have most people in the room so I believe we can begin.
>> Very quickly on zoom is myself, Dr. Martinez, Dr. medows and Dr. Albert. Could you quickly say who we have in the reason?
>> Dean goldman, miss Gary, Dr. ADA mora, Dr. Hardman, Dr. Taylor and Dr. shah.
>> I understand my microphone was not functioning well before lunch. When I packed I wasn't expecting to do this virtually but I shifted things around so hopefully it will be better in the afternoon. We're not going to move to an update on a Covid 19 and monksy pox. We're going to do both presentations and then open it up for questions. We have ian wills and Jennifer who is the incident manager for monkey pox. ian is for Covid. Thank you both for coming. We really, really appreciate it. You have the floor.
>> thank you and good afternoon. Today I'll walk you through a brief summary of where we are with the state of the man democratic and then I'll end with an overview of what we're doing in terms of transitioning our efforts back to program as we really move into the year three of the pandemic and look forward to how we're going to do Covid 19 sustainably. Next slide, please. So the story currently in the state -- go back one slide, please. Story. There we go. The story of the pandemic currently in the United States and around the world is one driven by the ba.5 variant. ba.5 is the lienage we see in the United States. It began accelerating here in early June and now accounts for 86% of cases and more than 75% of all cases and all parts of the country. As you all are well aware, we're tracking variants. Most recently we've started tracking ba.4 separately from see if it has a positive growth rate relative to the other variants and we're interested because ba.46 has spike impacts. We continue to watch variants, watch for the next variant, collaborate very closely with our partners around the globe to see what is happening there. One of the things about the story of ba.5 is that it looks like in certain parts of Europe we're starting to see a peak in ba.5 and as I'll walk through here in a little bit, we may be starting to see sort of a stabilizing or possible curve in the U.S. although it's really too early to say. If you look at kisses -- cases, hospitalizations and death, we're seeing low 10,000. This is par below the peak of last January where we saw more than 800,000 cases being reported daily. Hospitalizations have been climbing over the last -- over the spring and have started to stabilize in the last couple of weeks. We're currently seeing about 5500 hospitalizations on a seven-day average, far below the peak of more than 21,000 who saw the last peak in last January. Good news is hospitalizations is even though we've seen adult patients start to climb over the spring, one of the things we've noticed is that the proportion of all cases with Covid 19 and the icu remained essentially unchanged since the end of April to 10% or 15%. We've seen cases or hospitalizations climb, people within the icu is constant. And final piece here that when you look at deaths, again, remained relatively constant for the past several months at around sort of 350 to 400. Again, this is far below the peak where we saw about 2700 back -- daily back in February. Next slide, please. So as you again are all aware, with the sort of increase in availability of at-home testing the past WREER or so, we've started to lose fidelity about our case counts and partial until response to that, partially to really start to provide some tools to the public, the Covid community level was developed again. This is a tool that was developed to measure the impact of illness on health and health care systems and really it's a combination of three different metrics that includes new Covid 19 emissions per 100,000 in the past seven days, percent of staff patient beds and the total new Covid 19 cases per 100,000 population in the past seven days. It's really the idea that Covid 19 admissions and percent of staffed beds occupied represent the current potential for strain on the health care system while data on new cases are a warning indicator on the health service strain. That's what we've been watching very carefully the past couple of months. Levels can be low, medium or high hone in green, yellow or orange here and look at like hospital beds being used, hospital emissions and total number of new cases. You can see as of last week, more than half the population remains in a high Covid community. Try to show you a moving map here so what you're sort of seeing here is Covid community levels over time tracking this measure back in February which is after, again, a large peak in January. If you note in the bottom left, that's the week as it changes from week to week of Covid community levels. I'll let it run through here once and then it will repeat itself and I'll walk you through what you're seeing here. I think the maps do a really nice job of watching sort of Covid as you're seeing here through the spring but then followed by an increase in the spring. In the northeast it was largely driven by ba2.12 which recedes and

then you'll see the ba.5 wave across the country and if you look closely when we get to the end, you see what things look like and starting to stabilize a little bit in the last week or two. So again, it's too early to say if it peaked or not but I think the maps are incredibly helpful to sort of think and watch how things change and move around the country. I may let it go one more time here and then I'll go to the next slide. Next slide, please. Turning a little bit to vaccinations. I think we're all very well aware, vaccines are doing a very good job against protecting against serious outcomes and death but not such a great job of protecting against infection and pretty much the entire U.S. has had immunization, infection or infection and vaccination or vaccination and infection. We're in a much different place than we were six months or a year ago and we're looking towards the virulent vaccines and I want to stress that vaccination remains a key component of a public health strategy to minimize the impact of health on society and we're again looking forward to the fall here. We're going to see the new vaccines. I will turn very quickly to talk a little bit about a guidance update, refresh that the cdc is in the process of working on. I'll emphasize what I said in the previous slide. Land cape has changed in the U.S. and we're at a very different place than we were 30 months ago and even a year ago. We recognize that coding two will circulate in the United States globally. I mentioned we have high levels of a vaccine and infection induced immunity in the country. We have highly effective treatments and prevention tools and have tremendous illness and death. Not everyone but for many people. Really this is about pivoting towards the sustainable efforts to minimize the impact of Covid 19 on health and society. So as part of this, we're refreshing our guidance, really focusing on the four main core areas you're seeing up here on the slide to make it easier for people to know their risk, B how to protect themselves and others, what actions they need to take if exposed to the virus that causes Covid 19, what steps to take if they test positive to the virus. These updates to the guidance will help people better understand their personal risk for Covid 19 has helped make informed decisions. These prevention strategies will all be tied to the community Covid level we launched earlier this year, again, trying to help provide people information about when they want to take additional actions and may want to layer on additional prevention strategies. As part of this streamline guidance refresh, cdc will be updating, consolidating the Covid 19 website, amplifying messages through the partner outreach in media and social outreach. Time line for this is hopefully we'll be moving forward on this in the next couple of days to a week or so. No definitive time line yet. Next slide. I wanted to pivot quickly to talk a little bit about our transition of Covid 19 response activities to program. We've been working actually for several months to make this happen and look forward to how to make response efforts sustainable. This will optimize our work both on Covid and non Covid activities to make sure we really continue to leverage inexpertise to this agency. This slide is not necessarily clear to read but gives you a general flavor of this is what the ims organizational structure looked like before the transition. If you look across the bottom, there were ten separate Task Force comprised of 60 different teams and these teams basically had a series of supporting structures in the top left there was a whole series of support for science, communications, policy and health equity and upper right there was a whole series of support functions for staff, management and operations. So overall, at the peak, this was about 2,500 people deployed to the response, operating under this structure. Next slide, please. We've been able to start to look at where activities can transition after their home programs. This is the current ims organizational structure. After we formally implemented a transition back to program which began right around the beginning of July. Where we are now, we're a quarter of the size we were a year ago from our peak staffing and what we've done is really focused on retaining those cross cutting if you think -- cutting functions. This needs data analytic and digitalization Task Force and state, tribal and local and TERterritorial Task Force as well. We know there's a need for health equity chief and staff through our at risk Task Force, in this response and all future responses and across our framework. This structure maintains to make sure the chair unit is the importants part of what we do. As we move forward to this response, we contain the important health equity if you thinks. A little bit about how we've been able to make this all work is really at the cdc level is through this thing we've called the cio responsible officials. So what has happened is part of the transition is each cio is DEZ natured a responsible official. This person is not officially deployed to the response but represents their center to the response. The responsibilities are to maintain awareness about what's going on, when the activities of the office, make sure we're having bi directional communication between the cio and the incident management structure and basically to make sure they respond quickly to data calls and other requests that basically come from the im to make sure they're being quickly leveraged. So how have we done this? Here's a chart that shows basically the transition progress over time in terms of the number

of activities, the little circle shows we identified 800 different activities that needed to get transitioned as part of this. We sort of successfully transitioned about half of those so far. A number of them are slated to be transitioned whenever we continue to wind down the response sort of even further and there's a number of functions which are going to have to be maintained after the response aligns. I wanted to close to say this transition is really meant to be more sustainable way to maintain the momentum we've gained as we continue to work on sort of numerous other Covid activities and work in a number of different responses across the agency. This scaled back ims structure will remain in place to be a common connector across the agency for sort of foreseeable future but I think we've been very successful in trying to figure out a way to have a more sustainable response. With that, I will stop and I'll turn it to Jen.

>> Hi, everybody. I'm really glad to talk to you today. I'm the incident manager for cdc's monkey pox response. Next slide, please. So our response to monkey pox started on may 17 which was the date of the first reported case in the United States that occurred in Boston, Massachusetts and kudos to the astute clinician who recognized what they were seeing as an unusual rash not responsive to therapies and made the connection to what they were seeing in the media with recent cases out of the U.K. so we stood up a program-led response immediately and began to work with Boston and put together a health alert notice and other things to try to get the word out that people should be looking for this. The early cases we found were definitely travel associated so in the first couple of weeks of the response, all the cases being identified had reported travel either to Europe or Canada or somewhere in between. But then after a few weeks of that, we started to see cases occurring in non contacts of monkey pox cases and then we started to see people who did not know how they had gotten infected and had been infected through community spread. Where we are right now in this response, it's community spread that's happening primarily among the gay, bisexual and other men who have sex with men communities globally and within the United States, although our messaging focuses that anybody can get monkey pox. It's direct close contact that's required for that. So getting the word out to the most impacted community while also trying to message in a way that eliminates the stigma that's going to come with that is that challenging needle we have to thread with this response. So we have been in an agency level activation with our emergency operation center since June 28 but we've been responding to the emergency since May 17. We are still operating under a containment goal, although I know many states are starting to wonder if we're shifting to a mitigation case right now. Our efforts focus on those bullets so harm reduction messaging so getting the right messages out to the population that's at risk so they can change behaviors that are promoting spread, raising clinical awareness among providers seeing patients so they know how to counsel the patients and request testing, expanding diagnostic testing within the country. Making sure cases get isolated and treated if they're at risk for severe infection, tracing contacts and offering post exposure and then moving into a national vaccination strategy to try to get more protective vaccine in arms. Next slide, please. So these are our global case counts. These are monkey pox locations. ENdemic locations are in blue dots. These are the day before yesterday so the current case counts are 30,189 cases globally. There's been -- I think it's five or six deaths among monkey pox cases in non-endemic locations but the overall mortality rate is lower than we expect for monkey pox. There are two. There's a congo based and a west Africa base. We're fortunately dealing with a derivative of the west African outbreak. So similarly I have updated case counts for the U.S. hot off the presses so we're at 8,934 cases as of today. It affects 48 states and two jurisdictions, dc and Puerto Rico. What we've got is some really big state numbers for certain states and so the outbreak is definitely rapidly expanding in some places and then we have some parts of the country where they still only have a few cases. The doubling time for this outbreak is estimated to be 9.3 days but in areas where there are more than 25 cases that we can track, it's a slightly shorter doubling time of 8.6 days so that gives you a sense of where we might be heading in the next couple of weeks as well. The demographics for the monkey pox cases we're seeing, the median age is 35 years and we've had cases ranging from infants up to 89 years of age but the majority of cases are occurring in that, I would say, 25 to 50-year-old age range. Like the cases that are being reported globally, in the United States the majority of our cases are assigned male sex at birth so 99% of our cases are occurring among men. We do have some individuals assigned female sex at birth. Some of these are transgender men and some of these are those who identify as heterosexual women as well so it is spreading a little bit outside of that msm community but a lot of those are individuals who have contact with msm's so we continue to see the outbreak focused in a very specific, vulnerable population. For those who are reporting data, 41%

are hiv positive but we only have a fraction of those that have that data that are reported but it does appear to be a group that does have a pretty high hiv positive rate. Right now I actually have an update on pediatric cases, too. I'm aware of four pediatric cases in the United States. One confirmed, one probable and then two prior that were classified as probable but I'm labelling them under investigation bought further attempts to characterize the virus have shown those might be false positives or N conclusive results and that highlights an issue when you start expanded testing outside of the population with a high incidents, the prior test drops and it requires us to think a lot about when we see a positive case in a pediatric patient or a pregnant woman and they're not -- they don't have a strong connection to someone who is a non monkey pox case that you need to step back and say, maybe we should repeat this test and make sure. So we've seen an interesting shift over time in this outbreak in terms of race and ethnicity data. If you look at the early days of the outbreak so starting at mmw week 20 there, you can see the majority of cases that were being reported to us were occurring in persons who have a white race. As the outbreak has progressed, you can see we have our rates rising in terms of the percentage of those compacted. Some might be in the early cases they were travel associated and I think there are certain socio economic differences in people who have afford to travel to Europe and that might be reflective of that. What this really illustrates is there are some significant health equity concerns we need to think about with the monkey pox outbreak, making sure the individuals are having access to treat manies and to vaccine and really thinking more about how we deliver those activities to the populations that need it. I want to point out some of what we're doing relative to the trajectory of the outbreak. This is the epi conserve. It's actually through August 4. It's up against a backdrop of a lot of information so there's a 14-day moving daily average there. You can see that it's climbing. You can see that pride month is highlighted in kind of a light gray or blue box to give you perspective what the case counts have done after pride month. We were worried a bit that some of the activities happening during pride event with the large venues might facilitate additional spread. It's hard to tell if the upward case count is only due to that or not. We also had an increase in testing capacity during this time. I think we're just continuing to watch this and think about what it might mean. We've had vaccine available for non contacts of monkey pox cases on day one. On day one there was an fda approved vaccine available to give to known contacts. About halfway through this graphic here, we shifted to a national vaccination strategy. In addition to non contacts, it could be given to people with high risk behaviors. I think we probably are also now on the cusp of going to a preexposure vaccination strategy if more vaccine can become available to accommodate that. We'll likely see another shift in that effort shortly. We also have laboratory testing available from day one and that's a really different situation than we had at the start of Covid where we didn't have that. There was, thanks to the smallpox agenda, we had over 60 laboratories across country were performing an assay and they were really the backbone of how the testing was being done for those early cases. We did hear early and loudly that clinicians wanted commercial lab testing and that was something that I think they expected to happen very quickly because of Covid. So we worked pretty hard to bring five of the largest commercial labs online and they started to offer testing around the start of July and that has dramatically increased our testing capacity in the U.S. On the blue and green arrows up here, you can also see where we specifically made an effort to distribute more information, whether it was a political outreach or a big mmr for the operation. So the testing is something that I did want to take a moment to touch on here. So we did stand up commercial lab testing in early July and the labs have kind of come on after that point. You can see right now we've had a jump in the number of testing performed in the United States, partially because of the commercial labs but also a jump in those that are being done at lrn labs so testing demand is up compared to the start of the outbreak. You can see that we've had sort of a variable positivity rate but it's settling out, really between, I would think, 30% and 40% of specimens that come in to test. Next slide, please. And then we've heard a lot about you're not testing enough. You're not testing enough. I want to illustrate what the testing capacity was versus the test volumes coming in. You can see we have, since the start of the outbreak, been far below the estimated testing capacity. And we have come up to continue to be far above it so the issue in the United States is not lack of access to testing unless there's a barrier there that we have yet to identify for clinicians to send the tests in to the commercial lab. Some of it is, are they comfortable with the lab? Is it easy for them to do it? I know a lot of hospital labs want to stand up their own ldt's because of this and I think the cdc posted the assay online and it's available for anyone who wants to develop the labs. This is a bigot national vaccination strategy. So there are two vaccines in the United States that could be used. First one is jynneos, third again ration smallpox vaccine

that's a non replicative vaccine. It's a safer vaccine for people who might be immune owe -- immune owe suppressed in some way. It has been from the start available in a more limited supply, although the U.S. government has really ramped up efforts to bring in more of the vaccine that we own from the manufacturer. To date we have allocated over a million doses to states. To some degree based on the at-risk populations in the states and what the outbreak is doing in those states. It is a two dose vaccination series. That's what it's licensed for and the data suggests that the best immunity is achieved with two doses. A lot of states are trying to get a first dose in and then pause and wait and see. Our perspective at cdc is even if there's a long interval in between first and second doses, it's ideal to get the second dose in at some point in the future. What will be announced later today, there's a press briefing, is moving to an intradermal strategy. So that would dramatically increase the availability of vaccine and the coverage that could be achieved. So acam2000 is a much misunderstood vaccine. It is an excellent orthopox vaccine. It's a strong vaccine with one dose. It's replicating meaning it can be challenging if someone is immuno suppressed. And it could potentially be spread to others if somebody is not careful with the site of inoculation. And the other challenge is that it's available under an ea-ind but there are millions of doses of acam2000 in the system and some modelling in the cdc suggests it could play an important role in bringing the outbreak to a close if it was used carefully. Next slide. So the big piece here is community engagement is absolutely critical. It has been a cornerstone of the cdc response. We've been partnered with our colleagues here who have a lot of expertise in the hiv world and working with persons at risk who seem to be particularly impacted by this outbreak and we really rely on them to help us understand what to message, what stigma comes with messaging, how to think about all of that. They worked hard to develop really great graphics and information to share. demetri comes from this group and he is now the deputy director of the monkey pox response at the White House so he brings a lot of expertise to that level and a lot of focused engagements. We've channelled messages to the gay, bisexual community. We have a fantastic reference online called safer sex in large venues that really peeled it all back and said what r here is what you need to know if you're having sex right now during monkey pox. Here is what you do to protect yourself. Here are the risky activities that are driving the outbreak and then let individuals think about what their response is and MAIFRal changes would be. So not lecturing but providing information to people so they have what they need to make the decisions. And we've been engaging in a lot of listening sessions to promote dialogue so with affected populations, with the public health departments and with health care providers and we have to listen because they have a lot to say and they see a lot in the field that is really valuable to us to hear. So challenges and solutions. There was a lot of concern that was raised over missing early cases early. I think this is a real concern but I also think that we did so much looking, we actually found monkey pox cases in people that were not part of the European outbreak that had gotten their monkey pox as a different lineage so they weren't meeting that focus criteria of having to travel to Europe or Canada. I do think the U.S. outbreak was ceded several weeks after the outbreak in Europe and what took so long for us to build was that the outbreak got started later. I think the same thing is with Covid and it's reflective of travel patterns globally. That being said, we're definite until an acceleration phase right now. Lab testing. The discomfort with the clinicians not being familiar with the laboratory response network. When we heard about that as a challenge, we worked to stand up five commercial laboratories. Challenges with contact tracing so when we began to hear from our state partners that contact tracing, which is one of the most important things you can do early on in an infectious disease outbreak wasn't working, because there were too many anonymous partners or this particular social network was hesitant to maybe identify contacts, we worked to shift to I think expanded pep strategy and I think that recognizing that contact tracing was too porous and not effective was one of the reasons we went to a national strategy for vaccination. tpoxx access issues. We heard from a lot of folks that clinicians are having barriers to accessing kpoxx and this was a cumbersome protocol that was required for tpoxx. It's not licensed for use in monkey pox so we worked to reduce that burden. The jynneos supply issues. And then the messaging and behavior. As we begin to see maybe what was driving the outbreak, multiple partners, anonymous partners, things like that, we revised our safer sex guidance to address that and then finally, data sharing concerns. States, rightfully so, have privacy concerns and legal requirements for sharing data so one of the things we're doing to help ease that is creating data use agreements specifically for vaccine administration data and making sure those are in place. So these are the questions we've got for you guys to think about. The media, of course, is increasingly portraying the U.S. response to monkey pox as a bit of a public health failure. I permanently have a different perspective on that, knowing how

hard we're working and knowing this is a shared global experience and I'm not sure there's been a clear solution identified in any other country, either, but I'm open to ideas for what or how we could be doing this differently. I'm curious if you have a notion of what emdimicity will look like. Are there risk factors that might become endemic? When should the cdc be shifting our response efforts? If you have experience, you know, with that we would be open to hearing it. And then, of course, stigma and equity are highly significant concerns for this impacted population. I'm curious what you think cdc is getting right or wrong? And what we can do to improve in that area.
>> thank you very much. Those are great presentations and full of information. We're running a little long so I would encourage acd members who have input for speakers to text them or send a note to John. Maybe one or two highest priority questions and then we do need to move on. So we'll do one virtually, Dr. Albert.
>> Thanks much. Thank you very much, David. Two comments and then I'll put the others in the chat. With regards to risk factors and decreasing the health and equity issues, I think one thing we have the opportunity to do here is ensure for clinicians and for the public that when we put out the data or images about the skin findings that we ensure that all skin tones are represented, right? Because one way we're going to miss this, you know, going forward in patients as well as clinicians missing it is not, you know, sort of having representative images. I think another thing that's really bothered me about this infection and the name monkey pox is as we move towards, you know, sort of more diverse populations getting diagnosed with this virus, we need not move backwards to the types of images and things that could be affiliated with the name of the virus being called monkey pox. So those are just two high level comments.
>> thank you so much. Are there questions in the room?
>> First card that went up was Dr. ADAmora.
>> So just -- I don't know what cdc should do differently about this but I mean, things -- and I suspect you've already thought about this but as the disease moves, like most diseases, to more vulnerable populations, in this case specifically black populations being disproportionately represented, also thinking in particular about the implications of that concerning, for example, the need to isolate for prolonged periods of times and what that is going to do to people's ability to work and whether or not they will if they lose their jobs. Moreover, making sure they're able to access treatment because I'm sure, you know, it sounds like the burden has been significantly decreased in terms of the clinicians getting drugs to patients but it seems as if those people who get treated do seem to clear faster so it will be important to make sure that the distribution of treatment is really truly equitable and not just for those who speak up the loudest and say I know there's treatment. Give it to me.
>> thanks so much. Dr. medows, please.
>> I was going to put it in the chat just to get an idea who it was you were partnering with in the community, who you need to connect with, if you could actually put that out there, we can actually respond and give you ideas on how we can connect and then finally my question about whether or not we were actively going after those people in residential situations starting with colleges and then going all the way to prisons, department of justice, group livings, foster kids. That's prime territory for things to be happening.
>> I understand there may be two additional cards up in the room if I could ask folks to be very, very brief.
>> My comment is really brief. I wanted to point our attention to an open letter to the Biden administration that went out yesterday from a group of public health scholars that lays out 11 policy solutions. It's on HAR ward public health.org, I think. It's a really beautifully done comprehensive piece around some important stuff to consider.
>> Very brieflily, thank you for your presentations. One of the challenges that I think cdc has had in the Covid pandemic and now with monkey pox is that you think really hard about what you want to do, you announce it and then it's like, boom. All the blowback. You have very, very difficult decisions to make. There's no perfect way to resolve them. So no matter what you put forward, you've just bracing yourself for impact every time something new comes out. Alternative approach to doing that is to put things out initially as draft. Get the comments, see where people are coming from, listen to experts who are writing in letters and then come forward with what you want to do with the more nuanced message allowing people to focus on the content and not so much what you just did. I know these aren't formal regulations but there's value in regulation agencies to too a little draft and then final for that reason and

I think it might make whatever direction you want to go in easier to pursue if you listened a little more publicly along the way.
>> thanks. Really important presentations and great feedback from the community. We need to move O. I would encourage any thoughts and comments to just send an email to John and he can relay it to the cdc folks and ian and Jennifer, thank you so much. We appreciate your time and energy and the work you're doing. Let's now go ahead and move on to our next presentation. We are going to be now hearing from the director of the national center for environmental health and he'll be talking with us a bit about the work cdc is doing on health and climate change. Patrick. Excuse me.
>> Yes. Can you hear me?
>> Yes.
>> So I'm going to try to do two things quickly. I recognize I'm the last speaker of the day. I want to go through some talking points I've been using to discuss our program in various venues to talk about how do we combat what I see the head winds to getting more support for our program and among those head winds, it's very clear there's no appreciation to the public that climate change is a health issue. When you look at the surveys, the vast majority of Americans think that climate change is real but you ask them if it affects you, they say -- the vast majority say no, it doesn't. They see the health impacts as way down the road. We're talking 20, 30 years from now. They don't see it as an immediate health threat right now. We're dealing with that. We know there's no capacity at the state and local level to make much happen. We interview state departments, we say they don't have the staff and threats that are happening right now that are climate related and then finally, there's not a lot of presentation in this space at all. When people think about climate change and the government, they think of the E.P.A. and FEMA deal with in terms of regulating, you know, carbon emissions or green house gas reductions or electric vehicles and so forth. So a lot of my time is spent the last year or so reaching out to different groups to try to address all of those head winds. Recognize that we do have some nice tail winds right now with the Biden administration supporting this week. cdc supports this work, the White House is behind it and my tenure here at cdc, we've never had a consolation of support ever like that before to this program. We recognize there's a lot of good things happening. So one of the first points you try to make is dealing with this fact that it affects everybody. This is a map we often use. I would like you to critique the messages that we lay this out and we tell people that there are extreme weather events across the country that affects everybody. This is just -- I think this is 2021. There were 20 single billion dollar weather climate disasters in the last year alone. That's $20 billion in 2021 and they occurred across the whole country so everybody is impacted by this. So we can begin to build the message it affects everybody and that it's a big economic driver as well and many of those are health associated. I'll go over some of these quickly because these are things that I'm sure you're familiar with. This is an animated slide that shows us that in this case, we know that things are going to get worse. Not only are they affecting us today. We know they'll get worse in the future. Not 20 years down the road but next year and the year after that. And this is an animated map that shows the progression of extreme heat days across the country. This is over a long term time trend. We can also use the data that I'll talk about to show you what's going to happen next week where we could predict extreme heat events to be like next week, not just in the years ahead. We try to make the point that climate change is getting worse. It's affected people's health. And the next slide is we try to be topic JAL and we talk about things in the news when we do these briefings and we talk about a repeat. Depending who we're talking to, we talk about flooding and wildfires and talk about droughts. Some cases we talk about all those things happening at the same time in different places so we tailor our message. So we released a new heat health tracker that's part of the landing page of the new extreme heat webpage for the federal government, heat.gov, I didn't make up the name but if you go there, you can have access to this. But this provides a lot of data for policy makers to identify where the extreme heat is happening, where it's about to happen, a whole bunch of resources that go with that. How do you build cooling centers, how do you identify the vulnerable populations that might be at greatest risk so we have resources like this we try to make it that not only does the program support communication efforts, we have real tools and real resources that people can rely on and we use this as an example of a surveillance system we would like to develop more comprehensively for a wider variety of climb ace issues, not just extreme heat. Near real time data sets up heat and emergency department visits so you can look and see where people go to the emergency departments so you can begin to target your efforts in those areas and identify areas where there's primarily a lot of non English speaking people so you have to get your

communication efforts in all different languages. Where there's people over 65 living alone, where the heat islands are greatest going forward. There's a lot of resources on this page and we make this available to local and state health departments and policy makers. We are also free to talk about global issues and climate change is a global health security issue as well. We're reach to go a number every countries turning to us for advice how to build health related programs across the world and the same things are happening here that we know are happening across the world. Wildfires ravaging Europe, extreme heat events in Europe going forward. Depending on the audience, we're reaching out to, we talk about the global health impacts. We spend a lot of time talking about populations. In many cases it means, you know, poor minority communities and university environments so this is just a slide from cleanup afafter Katrina. Drought affects food security, people living in rural areas so there's many dimensions what we mean by vulnerability here and we talk about it in different ways. Again, depending on who we're talking to at the time. This is just a graphic we developed many years ago before I got here. Our climate health program is 13 years old at cdc. And we just had our ten-year birthday party in the middle of the pandemic. It wasn't much of a party. But this is a slide we use that demonstrates the telescoping impact of the changes we know that are happening and what that results in terms of the environment and ultimately if you look at the outer area, what health impacts we can talk about. So we can deal with a whole variety of health impacts from injuries to infectious diseases, you know, to increased air pollution to flooding impacts to safe water impacts, wildfires and smoke and so people are pressed when we talk about the wide range of health impacts that are happening today based on climate changes that are occurring almost every day across this country. And we try to get that point to people so they appreciate that this really means something special to them. And the next slide? We know we can't do this A lobby so we reach out wherever we can and sometimes that's in collaboration with the cdc foundation to talk to businesses about what this means for MEM. What people who lose electricity, it's more than just kind of an inconvenience. Oftentimes people can't get to work when that happens. Product IFT -- productivity falls. We showed you that $20 billion impacts last year alone. Next slide. So that's kind of the main just of the story that we -- the slides we try to tell. We talk about the leadership role in the federal government, how we collaborate across the government so we work with NASA to noaa, to usda. We work with the climate change and human health group, the wild land fire leadership council and there's a wide variety of groups that we play a leadership role in. We look at the assessment that we write every five years and we write -- our staff write two chapters in the national climate assessment every year. Next slide. Of course, we're part of cdc so we talk about what we're doing in the context of wheat important to cdc and here you see the priorities that cdc has in terms of public health work force, data modernization, melt equity and climate justice, social determinant BZ of health. We touch on that. We want to make sure we're emphasizing things that are not just important to us but they're also important to cdc. And the next slide, this is what we have right now. So we have a program that funds state and local health departments through our climate ready states and cities initiative to give resources to 11 state and local health departments to building resiliency against climate effects, the brace framework gives resources for local communities to identify their biggest Rick, quantify the risk in terms of health burden, minimize the risk and evaluate that those plans have actually mitigated that risk going forward. We have ten years of experience with this plan. We have a number of great success stories. We could spend a lot of time talking about that but ultimately, we want to grow this program so we fund more of the country for these programs going forward. Next slide. I'm happy to say that this last year, we developed the first ever cdc wide health and climate strategic framework. We were quite pleased when we asked others about climate activities and we have 30 to 40 activities across the cdc. We put together a Task Force across cdc. Every cio in the cdc was involved and we're developing a strategic framework you see here and we developed a mission statement to detech, investigates, forecast, track, prevent and respond to public health threats of climate change, addressing health inequities and strengthening communities resilience and our vision is a nation prepared to respond to the public health threats of climate change at home and abroad. We do this in terms of our budget last year. And as you probably know, we did not get funding come through. There's also $100 million in the presidential budget going forward. I'm the ever optimist. I hope that comes through and we can implement this program. You'll see the strategic framework on the next slide. You see what the components of the plan are. I don't want to go in this because I want to make sure we have time for discussion but health equity and environmental justice is farther of it, surveillance, analytics, modelling and forecasting is parts of it. We want to conduct research as well. There's a lot of questions still about

not only the relationship between climate and health but also how effective different intervention strategies are. We want to document that effectiveness and we want to make sure we're responding and adapting to emergencies when they occur. And we want to have a strong education and dissemination program as well. I mentioned the cdc foundation. We're working closely with the foundation. You see a slide of me at the Aspen conference being interviewed as part of a podcast for climate and health and there's a number of initiatives we're developing that we list here in the slide that we're working with the cdc to try to garner some increased interest in, in terms of supporting local communities and having directly giving money to communities, creating a work force that's climate savvy and climate capable, partnering with health care in particular and social marketing around climate and health. I'm going to stop there and see if you have any questions. In particular, I really want to try to understand how we can do a better job of addressing those tail winds, those head winds given we have a nice tailwind to work with today that we haven't had in the past
>> Thank you very much. There's a whirlwind tour on an incredibly important subject. I'm so happy you were able to be here today. We do have some time for questions. We'll go back and forth between virtual and live audience. Let me start with Dr. Martinez.
>> thank you, David. And thank you, Patrick, for that really great presentation. One thing that stood out to me that I think we really need to think about very diligently about is the fact that there is no health without mental health. So we may know that health includes mental health but we also know that we battle and have been for a very long time, I'm a psychiatrist so I have to harp on mental health. When you talk about health, it doesn't mean folks are thinking about mention health. So with the health, the heated health tracker, for example, and any other communication when you have the term health, I strongly encourage the cdc to consider also including the term mental health. I know it adds additional words but it sends the message to all the population that climate affects not only our health but mental health. Not immediately but long term. Many examples you gave that have been traumatic, everything from fires to hurricanes as an example, cause stress, anxiety, increases risk factors for depression and post traumatic stress as it goes along. There are folks from hurricane Katrina that are still dealing with those aftermath effects on their mental health so I would like you to consider that. Communication and the words we use truly are important and I think we can convey to the nation and the people that we want to be comprehensive and holistic as we think about our health and including mental health in a lot of your communications and terminology. You may be doing this but I didn't see it come across. I want to ask you to bring that and see what your thoughts are on that.
>> very well taken. We're absolutely considering it and it does not come across and we'll work on making that clearer going forward. When we talk about building community resilience, it's not just KIEBDZ of the resilience of the physical changes that are happening. It's also the mental health impact so it's part of our discussion.
>> wonderful to know. I kind of figured but work on making it come across as well.
>> Thank you.
>> Let's go over to the in-room comment.
>> Dr. Goldman, please.
>> thank you for that presentation. So I've been working on this in the context of another association, programs of public health and we just basically come off with a policy for all the programs to support that across the board, we will consistently educate, partner, do research in this area. Not just the environmental health disciplines but across all the disciplines in public health. This is an area that is created by the environment but it affects everything, including mental health. octavio, we do recognize that. But also that we needed to build into this, you know, concepts around justice and all the aspects of what we do because of how unequally climate is impacting health across all of our communities. Your picture of people evacuating from the hurricane I think really shows that. People in certain geographic areas are being hit very, very hard right now. But the other piece is partnerships. And I will say on our advocacy side, we are supporting the appropriations for the cdc. We might be the only group doing that but I hope others are, too. I hope the medical schools are supporting you and others but we certainly are in there supporting you. But I was really thrilled when I heard that the cdc foundation, you know, is working with you because I did think there are a lot of people in the foundation community who want to partner somehow, you know, on this climate issue and this is a way to channel that interest to find a way to bolster your work, that would be really, really important for us all because you really have to -- I mean, one of the things we did conclude in our evaluation is that we're removingremoving passed that

climate change is not affecting everyone. Now it's how fast do we have to move and what is appropriate for us to do and that's where public health can come in and make a big difference. I would love to hear about what the foundation is thinking in terms of what it's doing.
>> I don't have a problem with that. Judy, if you want to come up. The Aspen institute has a nice information breakfast we established with a number of groups that are interested in partnering with us going forward. So we had a native presentation like this. And we're reaching out to partners. I've spoken to the foundation board of directors about this program and there's enthusiasm about this across the foundation. You saw four areas that I mentioned on the slide. The cdc foundation is particularly interested. I know developing climate ambassadors among young people to be the spokes people for the future going forward and these are people who are going to be the future capacity when we get to health departments. There's an interest in reaching to the medical community to make sure when people see their doctors, we want their doctor and nurse and health care provider talking about the issues as a climate related issue going forward so there's a number of initiatives. I don't know if I did a good job of -- is Judy here?
>> We may just want to defer to David in terms of this. David, just for your awareness, there are two additional cards up so just in terms of time management, we want to make sure you're aware of the situation.
>> Thanks, John. Was that Judy Monroe that people were talking about?
>> She's at the table and ready to speak.
>> I would always deem it's appropriate for Judy to speak. Please go ahead and then Dr. medows and then the remaining two people in the room.
>> Am I on? I'll be quick. Thank you, David. So Lynn, in answer to your question, cdc foundation, we're really prioritizing this. This is like front and center. We've got our board -- our board has deemed this. One thing that I will announce on October 18, we're going to build on the lights, camera, action summit series we did. We're doing a very large summit on climate and health and the cdc foundation trying to bring in philanthropy, business, the youth. We really want to build out really a met A leadership concept, the youth serving organizations and bring them together to focus on public health and particularly climate and health. I do want to say the mental health is incredibly important. We're hearing from the youth. So much of the mental health and their lack of hope and their despair and AING SFWLIET -- anxiety and depression are related to climate as well as other things.
>> Judy and I were coconspirators so I got a huge denialing deja vu moment.
>> just a question/suggestion. We have lots of different corporations, companies, non profits who are very interested in doing something in the realm of environmental health and climate change. Sometimes they don't have a direction. I'm not sure how to do it. They have the dollars. They have the will. They have the commitment and they have sometimes been volunteered. So the information that you presented today would be incredibly helpful. The wheel where you talk about the individual environmental impacts, I've been spreading it out. It gives very clear examples of the health impacts. Typically we could take it into health disparities by zip code, by geography. You could do that for each state, each county and provide that type of information available virtually so they could use that, that can be something that helps direct where they're putting their money. I would rather see them spend thousands, millions, whatever on that.
>> I would agree. Thank you. We'll work with the foundation to reach out to any group and all groups to talk to them that we can. A lot of which we've done already but we can do more.
>> Dr. shah?
>> Building on Dr. medows' comment, I spoke with Dr. Monroe about this earlier. There's a huge opportunity with every publicly listed company thinking about esg issues, environmental social governance issues. It's on their agendas, they have money to spend and right now, they're very early in their thinking. Everyone is just thinking carbon footprint. You can give them something else to focus on that's meaningful and they'll be partners. But think of them as clients and customers and what data they need and what should they be measuring, how they should be reporting out in their communities. I think that's a huge opportunity.
>> thank you. We'll do our best.
>> And the final comment is from lugi.
>> thank you for giving us that overview in terms of the work and where you see opportunities. I just wanted to share because my colleagues would probably kill me if I did not share that we have a multi-

year, multi million dollar effort to help program so that's a team I lead and the environment group has been working with community based organizations, initial phase we actually worked in partnership with Judy and her team at the cdc foundation. We created a messaging guide and partnered with the metropolitan group. I would love to share that with you. Looking at messages that clarify the nexus of climate change and health and messages that live up to the values of our grantee partners so really, integrating health equity, prosperity and safety, the impact of racism and health and climate change so all of those are things that we would be really delighted to share with you and will follow up with you offline.
>> Thank you. I would really appreciate that.
>> Thanks to all. If there are any additional comments that come to folks as you're flying home, please relay them to John and we'll make sure to get them to Patrick. Patrick, anybody last words from you? -- any last words from you?
>> No. I think that about covers it. I'm excited to be in this leadership role today. We spent the first five years of my tenure trying to keep the program funded because every year, one or many parts of the federal government were hoping to eliminate the program. I'm proud of the fact it survived and I'm looking forward to what the future might hold and especially the fact we have the support of the cdc to create a first ever program on climate and health. I think that's a big deal.
>> Thanks to you, pat, for keeping it alive. We appreciate that.
>> Well said, Lynn. Patrick, thanks for coming today. I would hope that as we move forward in the future and you're increasingly successful in the cdc-wide effort that we can invite you back and get an update and perhaps provide some comments and suggestions to you. So please keep your dance card open for that if you're able to. OK. We are actually now back closer to schedule and so that's great. Let's move to the next portion of the agenda and that is public comments. We did not have specific requests for oral comments at this meeting but did receive a number of written comments and I wanted to acknowledge them. We -- these include several comments on flfluordation. And in addition, we had a submission on monkey pox and another from Lorraine Martin, the president and ceo of the national safety council on unintentional injury deaths. Really, thanks to all of you for taking the time to compose and send these in. I know that took a lot of work. These comments have been posted on the -- in the federal register and I would encourage acd members and other interested parties to take a look at them. And gather in sets. Once again, thank you. We can now move on to the next portion of our agenda. This was as vaguely titled plans for future meetings. This was an opportunity to talk about where we may be headed now that we have almost three meetings under our belt. I wanted to talk about the rhythm of the committee and our expectations for the next couple of meetings. We meet four times a year. Next meeting is scheduled for November 2. Stay tuned whether it will be virtual or in-person but it's likely to be hybrid again with a request to be there in person if you can so please, if you're able to, calendar the appropriate time in your schedule for that. As we've heard today, we have three work groups that are up and running and chaired by such able leaders and they're now shifting into high gear. Most of them meeting monthly, if not more often than that. And so reports from those work groups, as we've heard today, will be an important part of our November meeting. There will be substantive oral presentations as we heard today, the extent to which we'll be hearing specific recommendations for alternatively reports on progress is not yet clear but we would anticipate an opportunity regardless of where we are in the work group process for committee input into the process. And, you know, the terms of reference for our working groups are broad so I would encourage you RGS all of us to think about these reports as interim with an opportunity for a subsequent series of proposed action and potential action steps from these working groups at subsequent meetings and so please, working groups, please start your planning for preparing for content at our February and may, 2023 meetings as well. Presentations on current topics like monkey pox and Covid will continue to be part of our agenda. Hopefully we'll be able to move a little away from the infectious disease pandemics so other issues as cdc is able to bring the outbreaks under control. We will also like with your concurrence to go a bit more in-depth on special issues, cross cutting interests. We've heard today about climate change and we would like that to be really the first in a series of activities at cdc because they're cross cutting, really fall into the domain of the acd. One anticipated comment for our next meeting in that regard might be our social -- might be on social determinants of health and so keep that one in mind as well. We would like to do this by email, as we hear the cross cutting issues or issues of special interest with the cdc, we should explore ways to more rapidly provide high level input on these topics as they arise. There's time associated with the groups

and our goal is to be helpful to cdc and sometimes that requires emerging issues and emerging suggestions between the planned quarterly meetings. That may mean a special meeting if an issue arises and we'll be exploring other ways to provide more time sensitive recommendations to the cdc. That's the current plans. As I hope you've already all know, we real well come comments and advice from all acd members and from cdc leadership both now and in the future on how we can continue to make the meetings as productive and as useful as possible. I would like to ask JOB to make any additional comments and briefly open the floor if anyone has specific advice on the issues right now. Over to you.
>> thank you. Thanks, David. We want KO be creative. We talked about four meetings a year but if anyone has thoughts about the ways to tap the advisory group, we're open to that. I will say that in this meeting, there was, in addition to the possibility next time of focusing on SEESHL DISH social determinant PZ of health and where there could be a report, somewhat comparable to what bracy reported on in terms of the internal Task Force, we have a similar Task Force like that focused on social determinants of health and you heard Shari mention that another topic could be communications and communications to address some of the questions that were raised by members of the acd with regard to how to strength EN our communications efforts to deal with such issues as misinformation and miscommunication. So I would put those on the table as well for your consideration. And of course, what we are not sure about, because I think the planning is still occurring, is what stage the work groups will be at in the November meeting or the February meeting. We want to make sure when you're ready for a full presentation at the acd meetings, we allocate sufficient time for that because we wouldn't want to have abbreviated discussion when the goals of a work group report would be ultimately for the acd to consider recommendations that would come to cdc so we need to do a little advanced planning and we understand that that will take some time in order to fully allow the work groups to determine what the appropriate cadence will be for making preparations. So David, with those comments, back to you.
>> briefly, I would like to open this up for top of mind thoughts on any of these issues for improving our acd meetings. octavio has his hand up.
>> Thank you. I was just wondering if in addition to communications and the other topic, could we also add mental health for consideration? I would love to really hear how cdc and really all of the units are tackling the mental health issue because it is very much front and center. If anything has elevated it, it's definitely been the pandemic as well as the social justice movement that's impacting our country.
>> David, if I might respond to that just briefly, the -- it's very timely that you mention that because in fact, over the last six months, there's been an internal effort for across cdc to reflect upon its role in terms of addressing mental health and well-being and recognition that's an important part of public health. Not something that is covered elsewhere sufficiently. The public health needs to have a significant role in that arena. The deputy director of cdc, Dr. Phillip, ask her to oversee a process internally to identify what appropriate action steps should be taken by cdc to address the issue and so at a future time, that makes sense in terms of members of the acd, we can request Dr. Phillip or others that she might suggest to share that information.
>> John, thank you for that update. That sounds fabulous. Thank you
>> And I can't see if there are any other cards up. John, I can't see.
>> Yes. There are now a number of cards that are up. First two that I saw were Dr. sharfstein and valdez-lupi and then I'll get the other three.
>> Thank you. This is really relating to the question, David, about how to use these meetings well. I really appreciated when Dr. Williams and Dr. Mc Christen came and presented about the response and had questions for the advisory group, particularly to respond to. It was unfortunate we didn't have more time with them but that kind of interaction I think may be very mutually helpful. They're coming with a specific set of questions. We probably could have talked for longer about the monkey pox response that's a really urgent issue right now for cdc and I think if there are those issues that can be spotted in advance, we should do everything we can to protect the time on the agenda because I think it's directly, you know, valuable. It seems we can't really make it up in any other way. Even like some of the discussion of some of the work groups we may be able to make up in other ways but that's like the opportunity for engagement within the industry.
>> I agree with you. That's something we've asked all the presenters at cdc to try to do. It's not easy. And that was a confluence of bad timing and maybe mismanagement on my part we were not able to

get to those questions. But we will take your advice to heart and try to prioritize that time. I definitely agree with you.
>> Thank you for reminding us, John, that Shari had suggested communications as part of that enterprise risk management and perhaps future topic. If we might expand the activities under communications beyond risk communications and combating misinformation and disinformation. I would be interested and I think the field would be interested in terms of narrative building for public health moving beyond, I know we're still in it, in terms of Covid and monkey pox and emergent issues and crisis communications but really, how do we build trust in governmental public health? And so as you're thinking about what that might look like, I think that would be helpful. Two other topics that I would add to the list would be work force, particularly since the applications are due this month. Whenever it makes sense, I think to just share back because work force is a theme that's running across the three work groups and then new topic to add but might be related to mental health and behavioral health, community safety.
>> Thanks, Monica.
>> thank you. Dr. marita?
>> I wanted to put an exclamation point after Josh's comment and then also maybe build on his comment specifically to the work group report outs. If we're trying to save time, if we could provide written updates in advance so that committee members could read the updates instead of just hearing them and then we could engage in the conversations when they're seeking input from us.
>> Thank you. We'll work on that. I think part of the challenge has been that the people doing the updates, when they're timely, really like to wait until the very last minute to finish their presentation and slides because they want to give you the most recent information. But I think we can work on asking them to submit that with the caveat that they can update that information during the meeting themselves. Thank you for that.
>> I heard what she's saying is for our own Task Force stuff, we should do it more in advance. But it's OK if the cdc people do those slides in the morning and show up here. I think that's what you were saying.
>> I was referring to our own working group. I'm sorry. I meant our working groups.
>> The activities of the work group, send those out in advance. Substitution for presentations or just so people can prepare ahead of time?
>> I would say we could base it on what the content is. Some of the working updates might require a benefit from discussion but some of them might not. I think our data one we could have given written materials and had a few minutes for question and answer but we didn't need to spends that much time on it. On a case by case basis, get what the working group has to share and then determine whether written materials as well as in-person presentations are necessary.
>> Thank you so much. So today we talked a lot about structural drivers, talked about causation and root causes as a FUNTD mental issue we might address. We might look at whether supreme court should be fixing legal responsibilities when it comes to inequities. I would love to see us invite folks from the policy office to give us some insight into how we can strengthen that whole idea of policy causing many of these downstream impacts.
>> thank you very much. Dr. Taylor?
>> First I would like to agree with Julie and Josh to have more time to respond to the questions that -- for instance, on monkey pox and Covid. Covid at the moment with 400 deaths a day is not going away and maybe monkey pox will become endemic so I think there were answers and things we could contribute to so I think that would be good. And one other topic, maybe a year's time, the data that's coming in on health in women of child bearing age, the impact of the supreme court decision.
>> And David, that -- those are the only cards that have been raised in the room and the in-person meeting.
>> Great. Great. Thanks, John. I don't see any on virtual as well. Yeah. I think that -- again, I totally agree with the comment on trying to make the meetings as interactive as possible and prevent it from being a presentation for information only. It does sort of up the level of expectation in the future for presentations from the cdc that they will be followed by those questions. So we'll make sure that that happens. So thank you all for that and we will appreciate any ideas you have after the meeting to send them in as well. We're now going to move to closing remarks and you'll be relieved to hear that I went to keep them as short as possible. If you're wondering why any video has been going on occasionally, it's so I can have a coughing spasm. I would like to declare our first hybrid meeting a resounding success.

Thank you all to all the acd members for your participation. This is just such a great group of folks to work with. We have our working groups up and running. We've had some good ideas and suggestions how to maximize their input. We have good ideas how to continue thinking how to really up the value that we provide to cdc and the cdc issues that are brought to us. So I am really happy with how this has gone. You are a star group and my limited perspective of the former acd, I think they all would be envious of the quality of input that you've all been providing. And equally important, the quality of the input and presentations from our cdc colleagues and cdc leadership so huge thanks to all of the presenters today for coming, taking the time, being thoughtful, being open. It's just been a real joy. And perhaps most importantly, thanks to cdc support staff who have been working tirelessly to make this meeting a success. All the way from helping us with plane reservations and hotel reservations to organizing the work group meetings to doing all of the planning that's made the meeting today as successful as possible, special, special thanks as always to John who is really leading the charge there and who should -- we should recognize and take much, if not all the credit for the success of the meeting today so thank you very much for your work. I'm going to hand it over to you for any last words.
>> Thank you. I want to call out the people that you've mentioned by name just to say thank you to them. Tiffany brown who is with us in the room, Carrie, Bridget, Lauren and the person who handled the travel arrangements, Kevin BURT, thanks to all of them. They went way beyond the call of duty to make this meeting a possibility. I also wanted to just thank all of the acd members. Before this meeting, everyone who is listening is not aware of how much work you put in to the planning. Not only for their multiple work group meetings but we were sending you out lots and lots of emails and materials and advanced reading and, you know, just are appreciative to how seriously you took the responsibility of being on the advisory group. I also want to say, we very much appreciate the feedback. The feedback that you didn't have time for today, we look forward to hearing about that through emails. Please do send us those emails. We'll make sure they get to the appropriate people and work on Covid, monkey pox and on climate change. In addition to that, we really like the suggestions about leaving time for additional discussion, about timely issues. I think that the cdc staff will be so grateful for that. You could tell from the questions that they were asking that they were eager to receive more feedback and I think very appreciative of the feedback they received. So we'll take those recommendations to heart. It won't be too long before we start planning for the November meeting because it takes a bit of time to do that. So we'll be in touch with you soon but until then, just thank you so much for your dedication and your skill and effectiveness in terms of guiding the agency. David, back to you.
>> Thanks, John. Thanks again and we are adjourned. See you next time.
>> Thanks, everybody. With that we will end the meeting.