THE U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

convenes the

TWELTH MEETING

PEASE COMMUNITY ASSISTANCE PANEL (CAP) MEETING

June 23, 2020

The verbatim transcript of the Meeting of the Pease Community Assistance Panel held virtually on June 23, 2020.

C O N T E N T S

June 23, 2020

P A R T I C I P A N T S

(Alphabetically)

AMICO, ANDREA, CAP MEMBER

BOVE, FRANK, ATSDR

CARMICHAEL, LINDSEY, CAP MEMBER

DIPENTIMA, RICH, CAP MEMBER

HARBESON, ROB, CAP MEMBER

HEIER, TOM, USAF

HOLIFIELD, FREEMAN, USAF

LAUNI, LORI, ATSDR

MUTTER, JAMIE, ATSDR

PROTZEL BERMAN, PAM, NCEH/ATSDR

REH, CHRIS, ATSDR

ROGERS, RACHEL, ATSDR

SCHAIDER, LAUREL, CAP TECHNICAL ADVISOR

SOMERS, TARAH, ATSDR

P R O C E E D I N G S

(6:00 p.m.)

WELCOME AND INTRODUCTIONS

CDR MUTTER: We have a good crowd and a good agenda and it will not take too long. We could go through introductions. Can we go through the CAP members because I do not want everyone to talk all at once. Andrea?

MS. AMICO: My name is Andrea, I am part of Testing for Pease.

MS. CARMICHAEL: My name is Lindsey Carmichael, my son attends --

CDR MUTTER: Rich?

MR. DIPENTIMA: I am here.

CDR MUTTER: Robert?

MR. HARBESON: My name is Rob, I have two kids, I am a former chair --

CDR MUTTER: Kim?

MS. MCNAMARA: I am sorry about that, my name is Kim McNamara, I am from the health department

MR. OSGOOD: My name is Russell, I am from the fire department.

CDR MUTTER: Stephanie? Jared? Mark? Hopefully they will be able to join us later. Dr. Carignan? Dr. Durant? Dr. Schaider?

DR. SCHAIDER: I am here.

CDR MUTTER: Can we go through ATSDR?

DR. ROGERS: My name is Rachel Rogers, I am the scientific lead on [Indiscernible].

DR. REH: My name is Chris, Associate Director.

DR. PROTZEL BERMAN: My name is Pam, I am from Policy.

CDR MUTTER: Tara?

CAPT SOMERS: I am sorry I was trying to stay on mute so you would not hear my kids.

CDR MUTTER: Mina?

DR. ZADEH: My name is Mina, I am the special project coordinator.

CDR MUTTER: -- missed. Okay. If we could Abt, Danielle?

DR. HUNT: Hi, Danelle. I'm the Project Director for the Pease Study.

CDR MUTTER: Thank you. Zuha?

MS. JEDDY: Hi, I'm Zuha Jeddy. I'm the Project Manager for the Pease Study on Abt side.

CDR MUTTER: Thank you, Kate?

MS. DUROCHER: Kate Durocher. I'm the Coordinator for the Communications and Community Engagement.

CDR MUTTER: Thank you. And Air Force, Colonel Holifield.

COL HOLIFIELD: Hey, good evening. It's Colonel Holifield from Air Force Secretariat Installations, Energy, and Environment.

CDR MUTTER: Thank you. Lieutenant Colonel Heier.

LTCOL HEIER: Good evening, Lieutenant Colonel Tom Heier. I work with Colonel Holifield.

CDR MUTTER: Thank you. I think we've covered everybody. Anybody else?

COL HOLIFIELD: Mark Sullivan just chatted and said he is here and can hear all of us but can't be seen or heard. And he'll try to resolve that.

ACTION ITEMS FROM THE PREVIOUS CAP MEETING

CDR MUTTER: Okay. Thank you for that update. We'll try to problem solve as we move on. I do want to let the community know that we are very excited to hear your questions. We do have a place on the agenda for that. It's after the Pease Study update. And we'll go through how you can ask your question at that time. There's a few steps, raising your hand or chatting your question. So that'll happen right after the Pease Study update. So we hope you stay on for that part of our agenda. So with that, let's go through our action items from the last meeting from March 2020. So the first action item I'm going to ask Abt to speak to is ATSDR will provide the CAP with the status of the Pease Study Call Center.

DR. HUNT: Sure. So we had the call center voicemails checked. And we had seven messages that were left mostly from May and June from people that were interested in getting a call back about participation. In addition to that, we had three calls come into the Abt office. Those are mostly related to rescheduling. At this time, our call center is still closed until the restart plan is approved by ATSDR, which perhaps that's going to be talked about at a later point. But that's the update on the call center.

CDR MUTTER: Thank you. Any questions on that action item? Okay. So the next action item is Lori, can you address the next two? ATSDR will update the CAP when the ATSDR webpage has been updated with the Pease Study pause information.

MS. LAUNI: Yes. So we've updated the PFAS website, but the good news is even better. We're working on launching our new PFAS website any day now and you will get a heads up before we do that though. And so it'll be an easier navigation and you'll be able to find everything much more quickly.

CDR MUTTER: Thank you, Lori. Are there any questions on that action item? Okay. The next one is ATSTR will send talking points to the CAP regarding the pause in the Pease Study so they can share with the community. Lori, would you mind giving an update on that one, please?

MS. LAUNI: At one point, let's see, I was -- I am sorry. I believe we did send something out a while back. Well, this must

have been under review. And then I'm not sure if it was shared or not because I went on detail.

CDR MUTTER: Okay. Is that something from the CAP that's still needed, talking points about the pause? Or are we past that at this point?

MS. AMICO: I mean, I think it depends on when we're going to unpause, you know. If we're unpausing soon, probably not. If we're not, then we should revisit it.

CDR MUTTER: Okay. So Lori, if you could take note of that, please.

MS. LAUNI: Yeah, I'll go ahead. I'm putting that down to get done right away.

PEASE STUDY UPDATE

CDR MUTTER: Okay. Thank you. Okay. So those are all the action items from the last meeting. So we're done with that one. So Frank, I'm going to ask you to go in and give us a Pease Study update, please.

DR. BOVE: Okay. A number of activities are part of the restart effort to restart the Pease Study. So we've been preparing materials on the actual restart, which has all the COVID-19 precautions that will need to be in place in the office and in administering the study. So that restart plan has been reviewed by Abt Associates. We're now putting it in clearance internally. And then once that clears, we've made changes to a number of documents that are part of the Pease Study. And if there are any changes to the restart plan, we'll have to make those to those documents. And those documents plus an incentive plan, which I'll mention in a second, all those things will eventually go to OMB as a non-substantive change. We're going to be asking OMB to increase the gift card by $25 as an incentive. So in other words, an adult who completes the entire study would get $100 instead of $25 for the blood draw and $25 for the questionnaire would be $50 for each. And similarly for the child, each gift card will be increased by $25. So if the child completes the whole study, that's $150 total. We're not optimistic that OMB

will allow us to do this. But we prepared a document and made a case for it. And we'll see what happens. Also the neurobehavioral test battery will need some changes most likely, although we're still working on that. The issue is that if the tester has to stay at least six feet from the child, there are certain tests that can't be done. And other tests where the materials will have to be laminated so we can clean them. So that's the issue. If there are certain tests where the tester could be closer than six feet to the child and the tester feels good about that and CDC has no problem with that and the child and the parent has no problem with that, then I guess it's possible to keep all the tests in the battery. But it's probably going to be the case that I'm going to have to eliminate some of the tests in order to stay safe. So we're working on that as well. Let's see. What else is going on? Abt Associates put in for a modification to the contract to increase the communication activities. That's in our CDC contract office. Let's see. The communication working group with the CAP didn't meet last week. But we're trying to find a date in the next week or two to meet so that we can move forward on the media blitz and other outreach activities. The historical reconstruction report, that report was completed several months ago. We're putting it through clearance so that we can give it to those water modelers or people who are interested in the full report. But we're also going to condense the report so that it's more user friendly for those who are not water modelers but want to know a good part of the information about the sites and how the modeling was done. And this is important because there are data gaps in the historical reconstruction. So that maybe the CAP might be able to help with those. With Camp Lejeune CAP, for example, new retired Marines and other workers at Camp Lejeune], who had some information that helped us with some of the data gaps when the Marine Corps couldn't provide us with that information. So once you get this condensed version, once we get it cleared, if you know those retired Air Force or other workers at the former Pease Air Force Base, that might be helpful in clearing up some of the data. So that's why we're trying to move forward to get that cleared and then to you as soon as we can. Oh, one other thing is we've been ordering personal protective equipment for the staff in the office. And we'll also have masks available for

people coming in as part of the restart program. So I think that's it. Do you have any questions?

MS. MCNAMARA: I have a few. This is Kim.

CDR MUTTER: Go ahead, Kim.

MS. MCNAMARA: Do you have an estimated time or date of this restart?

DR. BOVE: Well, we've been talking about the middle of July. But I'm not sure whether that's going to be a real date or not. And we're still waiting to hear from CDC, aren't we? Does someone else have an answer here, by the way, Chris, or? I think--

DR. REH: We're in these discussions right now with CDC when we can restart all of our PFAS work. A lot of it is dependent on the situations within the states. So this impacts not just the Pease Study but also our exposure assessment work. We will definitely let you guys know as soon as we know anything. But right now we have to just kind of be flexible with the situation as it is.

MS. MCNAMARA: Okay. I have another question. With a neurobehavioral assessments, rather than discarding parts of tests, can you just delay them till we're in a safer place?

DR. BOVE: Delay until what? I'm sorry.

MS. MCNAMARA: Until conditions are better so that if we have --

DR. BOVE: Oh, until conditions are better.

MS. MCNAMARA: Yeah. So if we have neurobehavioral testing that's really vital to the outcome, we don't want to lose it. Maybe we can just delay that or is that not logistically possible.

DR. BOVE: Well, we've been having trouble getting children to actually complete these tests in the first place. So I think we've had 70 children that have participated but a much smaller number that have actually completed a neurobehavioral test. So there's been a problem getting that to happen in the first place. So I think that I don't know if that's realistic to delay it. We don't know when the situation will improve. So I think we'll just either have to eliminate some of the tests. We'll still have a good number of tests. We'll still have an ability

to look at the key elements that we're interested in. But unless we get an okay to administer the test closer to the child for those tests that require that and the tester has no problem with that and the parent has no problem with that, I think we're going to have to probably eliminate some of the tests.

MS. MCNAMARA: Do you know the reasons why you were having difficulties? Is it because people were so busy or the children were in school or daycare programs when their parents were working? And that might be easier now? Or is it that people just are very reluctant to expose themselves to anything unnecessary?

DR. BOVE: Well, I think that the latter is going to be a problem in general. People are going to be afraid to go to offices because of the pandemic. But before the pandemic happened, we were still having some difficulty lining up children to take the test. So I think we were doing it on Saturdays. It may just have been not as convenient for the parent. And it does take a good chunk of time. So it's going to be difficult from here on out.

MS. MCNAMARA: Thank you.

CDR MUTTER: Thank you. Are there any more questions?

DR. SCHAIDER: Yeah, I had a question. Frank, you said that there's been some changes to some of the documents. Could you say a little more what's been updated?

DR. BOVE: Yeah, well we've had to, now I'm getting the multi-site study confused with the Pease Study. But there's eligibility screening that -- not eligibility screening. I'm sorry. That is the multi-site study. There are procedures that will have to be in place in the office for the COVID-19 for questions. Any document that mentions any of those kinds of procedures, we'll need to have those things included. So these are non-substantive changes. But they have to reflect the changes that we're making in the office because of the pandemic. That's what we're doing. So the other change is let's see. Yeah, the questionnaire, before we were doing it in person. Now we're going to do a phone questionnaire. So we have to make those changes to the documents as well. So it's those kinds of changes.

DR. SCHAIDER: Uh-huh. Are you going to try to do it by Zoom or just by phone for the questionnaires?

DR. BOVE: Phone.

DR. SCHAIDER: Okay. Great. Okay. And one more question. The changes to the neurobehavioral testing, is that going to also be reflected in the multi-site study? I know there's an interest in keeping a lot of the things the same between both.

DR. BOVE: Likely, yeah, yeah.

DR. SCHAIDER: Okay. Thanks.

CDR MUTTER: Thanks, Laurel. Any other questions for Frank or on the Pease Study?

MS. AMICO: Yep, this is Andrea. I have a few questions. So I'm just curious in terms of PPE and protective gear and things like that from the staff, what can a person expect the staff to be wearing when they show up for the test and what would be expected of them as a participant? Is it just like a surgical mask or, you know, cloth mask, you know? What can people expect in terms of precautions and protective equipment?

DR. BOVE: Actually, I'm not necessarily the best person to ask that question. But we will have masks for people coming in. I'm not sure what kind of masks. We were ordering masks. And I haven't seen them. And I haven't seen the specs for them. So I'm not sure exactly what kind of masks. They'll be is similar the ones the EA is using. So if anyone on the call knows what the EA is going to be using, pipe in. But the staff will have masks. And we'll be offering masks to those coming in, if they don't have one already. There'll be cleaning done. They'll be, as I said, it's for the neurobehavioral test right now, we're going to be six feet from the child at all times. So these are some of the precautions that we have.

MS. AMICO: Will there be like temperature screenings and like a few questions? I feel like anywhere I go right now they ask -- like some places check my temperature. Other places asked me, you know, if I've had a fever or if I've been exposed to anybody that's been tested positive recently. So will you follow a similar protocol or something like that coming in?

DR. BOVE: Yes, yes.

DR. ZADEH: This is Mina. Frank, if I might just add to it. Yeah, all the participants will be screened for COVID-19 symptomsnd they will be asked to leave if they have the symptoms. And we will have no more than nine individuals in the facility that includes our staff. We will have PPEs. And we have ordered some. I don't have the specifics as far as the type of mask. But I can certainly provide that information at a later point. We will certainly have physical spacing requirements, hand washing requirements, and other types of equipment, PPE equipment like sanitizing the tables, et cetera, like chairs and so forth. And these are all aligned with the CDC COVID-19 guidelines to protect our study participants and our staff.

DR. ROGERS: Okay. Hey, this is is Rachel. And I can just speak to you the plans for the exposure assessment. I know that we're currently in order to be in compliance with the CDC recommendations, our staff will be wearing cloth face coverings. And we'll be providing paper, like the disposable surgical masks to participants who arrive and who don't have their own face coverings. There is a caveat that we will be monitoring the CDC recommendations really closely. So if they change, then this plan will also change. But at this time, the plan is for for staff to wear cloth face coverings and for participants who don't have them to be provided the disposable surgical mask style masks.

CDR MUTTER: Okay. Great. Thanks.

MS. MCNAMARA: Sorry, Andrea. Are you done?

MS. AMICO: I just have -- yeah. Will kids be required to wear masks throughout the entire testing, like even neurobehavioral, which is, you know, an hour and a half to two hours long?

DR. BOVE: Well, that's a good question. My understanding is yes. But this is something again with the neurobehavioral tests, we have to make sure that tests can actually be administered. So we'll have to discuss that further.

MS. AMICO: Okay. And then I know when we had talked a few calls back, you had canceled appointments through mid-June. I know like my husband has an appointment scheduled in August. Like he

booked that before COVID. It was the only Saturday appointment he could get. And that's what he needed. So do you have people booked later in the summer and are you planning to contact them? Or are you kind of waiting to see what's going to happen with this reopening plan? Because he hasn't heard. And I've just assumed his appointment is on unless we hear otherwise. But I'm curious if you have a lot of other appointments that far in advance.

DR. BOVE: So Danielle, do you have an answer for that or no? Yeah?

DR. HUNT: I don't off the top of my head. I'll defer to Zuha. Do you have any indications?

MS. JEDDY: Yeah, we do have some appointments scheduled later out in the summer. But as you guys have heard, we're not ready to open up yet. So we'd have to go ahead and cancel those.

MS. AMICO: So are you reaching out to participants to cancel or? Like I forget which day he is in August on a Saturday. But he just hasn't heard. So I'm curious if, like they said, if there's other people in that situation and what is the plan? Would you contact them now? Or are you going to wait till mid-July until you know if you're reopening?

DR. HUNT: I think we would want to better understand the restart plan. We'd hate to cancel appointments that we could ultimately keep. So I think, you know, right now the plan is maybe bring us to the middle of July. So any appointments through then would be canceled. And then as we get updated information, we would continue that communication with the participants.

MS. AMICO: Okay. Thank you. One last question. I did have a community member reach out to me. Her husband participated a while back. And she was asking about results. I just want to make sure I understand. So no one will receive any results of the study at all, whether it be their PFAS results or even like their cholesterol or anything like that? That will all be released at the very end of the study. Is that true or could they expect something in the interim?

DR. BOVE: Yeah, that's true.

MS. AMICO: Okay. So even for non-PFAS bloodwork, like cholesterol and things like that, they wouldn't expect to get any results of that back until the study has been completed.

DR. BOVE: Well, once we've collected all the data, yeah, and all the analyses.

MS. AMICO: Okay. Okay. I think I'm all set.

CDR MUTTER: Kim?

MS. MCNAMARA: I have a couple questions. Thank you. You know, far be it for me to question the CDC. But I think that where we have children's health in our hands and that's what we're concerned with, I would like to see the most protective PPE available. And I would think N95s at a minimum. Maybe P100s and face shields because I want people to feel comfortable. If they're putting themselves out there during this time, I think the least we can do is better than cloth masks and surgical masks. I'm interested in what the rest of the CAP thinks about that. But I just think that we have to have absolutely heightened precaution in this situation.

CDR MUTTER: Kim, this is Jamie. Are you talking about for staff or participants?

MS. MCNAMARA: For anybody that you're going to deem needs a mask.

CDR MUTTER: Right. So, you know, N95s need to be fit tested for them to be --

MS. MCNAMARA: Yeah, but hasn't everybody been fit tested by now?

CDR MUTTER: No. I mean --, no.

MS. MCNAMARA: Okay. So staff at least? I understand what you're saying, Jamie. And it's a great point. But even if a poorly fitting N95 is available, I think that's still more protective than a surgical mask? Am I wrong about that?

CDR MUTTER: I don't know the specifics of that. I'd have to look, you know. There's a lot of things that go into that beards and you know. Kids won't have beards obviously. But there's a lot of things that go into masks. So I don't claim to be the

expert. But I do know that for them to work accurately, they have to be fit tested.

MS. AMICO: This is Andrea. I think one of my concerns regarding masks is children and their tolerance to masks. So I have three little kids. And I can tell you that my two younger ones do not tolerate wearing a mask for very long periods of time. And so I'm just curious how that could impact people's participation. Would you turn someone away, if they said, you know, "My six year old can't tolerate a mask"? If someone came in and they started with a mask on but they were pulling it off, I mean, because again I'm specifically thinking more about children and their tolerance to it. I'm just curious. Would you have to end immediately and turn them away, you know? Have you thought through the compliance with a mask with folks?

MS. MCNAMARA: And to Andrea's point, that would be even more reason why we would want the most protective masks on the non-family members. So if it's staff, I think we should fit test them, if, you know, if that's what it takes. Unless there's someone here who knows better than I about this. But my understanding working closely with UNH and our NIOSH person there, that N95s are more effective than surgical masks. So it doesn't seem like a big deal to me to fit test people and at least provide that for exactly Andrea's point, if you have participants that aren't going to be wearing any protection.

MR. DIPENTIMA: Hi, this is Rich. You have to decide what the purpose is of wearing the mask in the first place. If the purpose of the mask is to prevent people from shedding virus into the shared air, that's one thing. If we're wearing masks to prevent people from inhaling virus from the shared air, that's another thing. So we have to look at what the purposes of wearing the mask is. And in most non-medical situations, the purpose of wearing a mask is not to protect the mask wearer but to protect those who are in the shared environment with that mask with the other individuals. So any infected individuals are not putting virus into the air that's shared by others. So we have to understand what is the purpose of the mask in the first place. And once you decide what the purpose of the mask is, then you can decide which is the most appropriate mask to use.

MS. MCNAMARA: And if there's only nine people at a time in the building, the people that we would be most worried about shedding virus I would think would be the staff. And, you know, we know that the temperature checks and all that stuff doesn't catch everything. So my point is just I think that you should have the most protective PPE for the people wearing PPE to keep everybody safer and to stop the spread in enclosed spaces like that. Thank you.

DR. REH: So this is Chris Reh. Rich, you're spot on. I'm an industrial hygienist by training. But it's been a while since I've done industrial hygiene work. You are right. You have to be fitted. N95s and P100s are designed for adults. In fact, you're hard pressed to find masks that are designed for children. The highest level of protection would not be appropriate here because that would be things like SCBAs and powered air purifiers. But we need to do a little homework on this. So, you know, we have good contacts with NIOSH. NIOSH is thinking all of these issues through. They certify the respirators. You know, as far as who knows the most about respiratory protection, whether it's chemicals or infectious agents, NIOSH is the person or is the agency. And we have close contact with them. So let's take this as an action item and follow back with the CAP because we do need to be tight on how we're going to go forward with protecting not only our staff but the community members who are coming in. And it cuts both ways. Whether you're a community member or staff, it's you shedding the virus. And you being exposed to the virus, you know. If you think about the staff, let's take a situation where everybody on the staff had been quarantined for 14 days, had been tested, and were not COVID. But then you've got all these people from the community coming in. And we don't know if they've been quarantine for 14 days or if they've been tested. And so you've got to protect both ways. And so let us do some homework on this and get back to you.

MS. MCNAMARA: Yeah, that's great. Thanks.

MR. DIPENTIMA: There's also the opportunity to do some physical barriers as well.

DR. REH: Absolutely.

MR. DIPENTIMA: People could wear a mask. But it also could be Plexiglas shields between the participants and the staff as well, besides wearing masks and looking at the ventilation systems that are in place in the different facilities, maybe to adjust the air flows and so forth. But there are ways to do it. I think the most protective mask would be the best. But we have to understand the limitations of how much of those are available and how much are we diverting from people in healthcare facilities, who might need those when treating COVID patients. So we have to be realistic about it and use science to guide the process.

DR. REH: Yeah.

MS. MCNAMARA: And just to be clear, I'm only talking about the adults. And I was not thinking about self-contained breathing apparatus or anything that. I was talking about disposable masks, the most protective disposable masks. Thank you.

CDR MUTTER: Thanks for bringing that up, Kim. That's was great discussion.

MS. AMICO: If I can just add to that, too, I think a part that I think ATSDR needs to decide too is, what are you going to require when it comes to masks? Because, like I said, if a child can't tolerate one, will they not be allowed to participate? Some adults are choosing not to wear masks, you know. They're making that choice. So would you refuse them the ability to participate in the study? So I think this is kind of a complex situation. And I just want to make sure that you address those components as well. What is absolutely required and will it affect someone's participation if they choose not to or cannot tolerate it?

QUESTIONS FROM THE AUDIENCE

CDR MUTTER: Thank you, we have that noted. Okay. Any other questions about Pease Study? Okay. Pausing to make sure everyone has a chance to jump in. Okay. So the next thing on the agenda is questions from the audience. So Pam, would you mind giving an update on kind of how the audience can request to raise their hand and ask a question?

MS. WYTON: Sure, Jamie. So you have the capability to raise your hand in Zoom. The raise hand function can be found in the participant's panel or you may see it along the black bar along the bottom of your screen or maybe at the top of your screen. You click either one of those. You will raise your hand. We can see that. And then I can allow you to talk. And then you can unmute your line. And if you have joined the meeting via telephone only, then you can also raise your hand by pressing star 9. And in addition, you can also use your keyboard if you're on your computer and do the shortcut of alt + y. And that will raise your hand. And in addition, you can type a question into the chat box as well. And we'll see that.

CDR MUTTER: Thank you, Pam. And, Pam, I already see a question. So this is exciting.

MS. WYTON: Okay. Peter Clark, I see that you've raised your hand. So I'm going to allow you to talk. And I've unmuted you. You may need to unmute yourself as well. Peter Clark.

MR. CLARK: This is Peter Clark from Senator Shaheen's Office. Can you hear me?

CDR MUTTER: We can.

MR. CLARK: Hi, I just wanted to give a legislative update of what's going on in Washington with the Pease Study. And just to let everyone on the call know that the National Defense Authorization Act, so that is ongoing, even with all the COVID things that are going on in Washington. And it has been marked up in the Senate Armed Services Committee that Senator Shaheen is a part of. Continued funding for the Pease Study is contained in the bill that has come out of the Armed Services Committee. We hope that the full Senate will take up the bill shortly, where it could be as soon as next week. So we will keep you updated on that. But I just wanted to let everyone on the call know that we, Senator Shaheen and the others in the delegation, are still continuing to work to make sure that funding continues for the Pease Study.

CDR MUTTER: Thank you, Peter.

DR. PROTZEL BERMAN: I just wanted to add my thanks, Peter, for being on the call and for everything you're doing in Washington. This is Pam. Thanks.

MR. CLARK: Thank you.

CDR MUTTER: Great. Do we have any other questions? More attendees, please raise your hand or type in the chat box. I'm going to pause for a few minutes. I want to make sure we capture any questions our audience might have. Again, you can raise your hand or you can type in the chat box, if you have a question. Sorry for the silence. I just want to make sure we get we don't miss anybody on our call here. Okay. I'm hearing and seeing no hands raised or no chats. So I'm going to say we can move on with our agenda. We have a break. I'm going to suggest we go ahead and go through that break since we haven't been on very long. Is that okay with everybody? Shaking heads, yes, no? All right. I see more yeses. So let's keep going. We have a multi-site study update next. Frank, are you going to give that update for us today?

MULTI-SITE STUDY UPDATE

DR. BOVE: Yes, I'm trying to unmute my computer. Yeah. We did get approval for the multi-site study.

CDR MUTTER: Frank, can I interrupt just a second?

DR. BOVE: Yeah.

CDR MUTTER: If you're not speaking, if we can put our mics on mute so we don't hear any background noise. I would appreciate it. Thanks. All right, Frank. Thanks.

DR. BOVE: Okay. All right. So I think most people know this already. But we did get OMB approval for the multi-site study in on May 28th. We're working with the PIs at the site to make changes to the eligibility script to accommodate situations at each of the sites, which differ to some extent. So we want to work in a script that meets all the sites' needs. And that document was revised and being reviewed now by the PIs. The historical reconstruction and PBPK working groups have been meeting. And so far, so good there. The budget Year 2 money was

awarded. And the funds remain at $1 million at each site, which is the same as Year 1. And the only other thing was that there's a contract process for the Data Management Center and lab analyses and that's been initiated. So the contract process has been initiated for those two activities. That's all I have.

CDR MUTTER: Are there any questions for Frank on the multi-site study? Okay. Okay. Thanks, Frank. Let's move on to Tarah with a Pease Health Consultation update, please.

PEASE HEALTH CONSULTATIONS UPDATE

CAPT SOMERS: Sure. Hello. So the update, so the Pease Public Drinking Water Health Consultation was finalized in March. So that's out. It's available on our website. And then the private well, the public comment version of that was released in April. And it has a public comment period until July. That is also on the website. And, Jamie, I sent you the link. Correct? So it can go out to everybody.

CDR MUTTER: Yeah. It’s in the email that I sent this afternoon that link with the fact sheet.

CAPT SOMERS: Great. So that can be used to read the document. And then you can submit comments like we did with the original public comment version for the Public Drinking Water System Health Consultation. So again, this is the one about the private wells, which are largely located in Newington and Greenland. And our initial plan for the release of the document got a little off track with COVID like lots of plans in the spring of 2020. So we initially planned we were going to have public availability sessions like we did for the first document. We were going to do that and kind of target the families that use those wells, so the well owners or the people living in the homes where the wells are. We had to change plans a little. We didn't want to not release the document. But also we can't have these availability sessions. So we tried to let people know what's out there. We had a few contacts come in for people asking questions about the document. And currently Gary is reaching out to Newington and Greenland to the Select Boards there to see if there's time we could do like a virtual briefing

to them, which would hopefully also be available to the public, if anybody was interested. We can answer questions then, too. So we're working on trying to make that happen. I would hope in the next month or so. It's going to depend on the locals availability. So those are the health consultations. Any questions? No. It's pretty straightforward right now. Right? Yeah. So if you have comments, again please feel free to send them in by the deadline. It's the end of July. So please get us your comments back. And then what we will do is, as we did for the public drinking water one, we will take the comments, address the comments, and then release the final version.

CDR MUTTER: Thanks, Tarah.

CAPT SOMERS: Sure. I think I'm next again to for -- am I doing the exposure assessments?

CDR MUTTER: I have an update from Brad.

CAPT SOMERS: Oh, yeah. Okay.

EXPOSURE ASSESSMENT UPDATES

CDR MUTTER: So I have an update. So if anybody wants to jump in and tell me I messed up please, please do so. Okay. So for the exposure assessment update, the individual results have been shared with participants at the first four sites, Massachusetts, West Virginia, Washington, and Delaware. And community level summary statistics are posted on our website for those sites now. So you'll just go to the PFAS ATSDR main PFAS page under exposure assessments. And you'll find the information there for the community level summary statistics. Sample collection in Texas was completed prior to the COVID delays. But the analysis of samples is being delayed due to COVID. And the field data collection at the final three sites in New York, Alaska, and Colorado is still on hold. And there's no timeline available now. Is that correct, everybody?

DR. PROTZEL BERMAN: Yeah, I think that's right, Jamie.

CAPT SOMERS: I believe that's right. Yeah.

CDR MUTTER: Okay. I did it. I did it. I did it. Yay, okay.

DR. ROGERS: Yeah. Jamie, that all sounds good to me.

CDR MUTTER: Okay, great. Are there any questions on that?

CAPT SOMERS: Oh, sorry. I was going to add for Westfield. The letters were sent out in April. We had probably about a handful of Westfield residents contact us with questions that we were able to hopefully answer for them about their individual results. And then there was also the fact sheets been posted online, which talks a little bit about the aggregate results for the Westfield community. So that's available at the ATSDR website, too, that fact sheet. It hasn't gotten a lot of attention in the press, I don't believe. I haven't seen a lot happening with it. And, like I said, we got about a handful of questions. So we did get it out there as soon as we could for folks. And again we have not had any meetings concerning it for the COVID reason. So.

DR. REH: Yeah. What's experienced at Westfield is what has happened at the other three sites. There's been a few inquiries from the people receiving the letters, mostly just questions to understand the results. And we've not had any -- I don't think we've had any media inquiries. So it's been fairly quiet.

CAPT SOMERS: And I will just add, too. There was a Grand Rounds that we had planned for prior to the release of the Westfield results. And that was planned for the end of March. And then it was an in-person event that was going to happen out in the Springfield area with Bayview. And then it got changed into a virtual event. I was deployed at the time, but it did happen. So we did reach out to providers also sending them information via the mail for local healthcare providers that were identified as likely places people were getting their healthcare from. So we did still move forward with the Healthcare Provider Outreach, even though again COVID made it really challenging because a lot of offices, as I'm sure you're -- well, I don't know. Maybe New Hampshire is different. But in Massachusetts a lot of healthcare offices kind of shut down and weren't even really seeing anybody. So it's not what we envisioned. But we've tried to keep moving it forward, so.

CDR MUTTER: Thanks, Tarah. I see Andrea. Trying to ask a question a couple times, so.

MS. AMICO: Yeah. I was just curious. I mean, obviously, I can go on the website and look at the exposure assessment. And I'm glad to know that some of this data is already up. But can anybody give a brief summary of what was found? Were elevated levels found in these communities, you know? I'm just curious if someone could give like a brief summary.

CAPT SOMERS: So I could try. So for Westfield -- and I don't have it in front of me right now because I'm on my phone. I'm sorry. The levels for PFOA, PFOS, and PFHxS, I believe, we're above the NHANES like average. So those were for the population as a group, which I don't think was that surprising. Correct? You know, kind of, so I believe those were the three that were slightly higher. It's in the fact sheet. It has like some graphs where it's broken down. I'm sorry. I don't have it in front of me --

MS. AMICO: No, that's okay.

CAPT SOMERS: -- for that one.

MS. AMICO: Do you know for the other sites where there is data, like West Virginia and all that? No? you're not sure?

CAPT SOMERS: That, I'm not sure.

DR. ROGERS: Yeah. This is Rachel. I can speak to that. We're seeing in general that in the communities that we have results for, we are seeing levels that are higher than what we see in NHANES, higher than both the the measurements of central tendency and also higher than the 95th percentile, in some cases. I don't have the exact percentage in front of me. But in general, we're seeing what we expected, which is that the serum concentrations, especially for PFOA, PFOS, PFHxSS, are higher than what we see in the general U.S. population.

MS. AMICO: Okay. Thank you. That's very helpful to know. And then I was just curious, Tarah, I think you said you had done some outreach to healthcare providers in Westfield when the results were released. What kind of outreach was done? Was it like phone calls? Was it just sending them that ATSDR physician guidance document, you know? What kind of outreach was done? And how was it perceived by the healthcare community?

CAPT SOMERS: Yeah, so that's a good question. We mailed packets of information, which included information about like what was happening in Westfield, why the exposure assessment was there. And there was the ATSDR materials for healthcare providers. And then there was the Grand Rounds. That was done virtually with Children's Hospital. And so we did that. I don't know if any phone calls were made at that point. We had originally planned to that there were going to be detailed visits that the Pediatric Environmental Health Unit was going to be able to go out and visit with providers. But I think because of COVID, that all, unfortunately, the in-person visits are not able to go as planned. I haven't heard from any providers personally. So I'd be afraid to speak for how it was received. I haven't heard from community members either saying that, you know, I talked to my provider and they didn't know. So I guess it's hard for us to know what the, you know, what their response for the providers was.

DR. ROGERS: Yeah, again I can talk about the public health detailing visits have been a little altered because of the pandemic. Those haven't gone exactly to plan in order just because we've been trying to figure out how to do it in a way that's safe. But they are very much still going to happen. And we're just trying to find ways of either doing them virtually or in person in a way that's safe.

MS. AMICO: Okay. Great.

DR. ROGERS: Yeah. And for the Grand Rounds events that have taken place, either the ones that were held in person before the pandemic or the ones that have happened through other mechanisms, everything that I've heard has been that the providers have been really appreciative and have found them to be very helpful, which I think we view as good news.

MS. AMICO: Okay, great. And then I guess my last question is, how do you target healthcare providers? Do you ask participants who their primary care doctor is and that's how you like kind of narrow in or do you just look at the community and see how many PCP practices there are, pediatrician offices, and then just do kind of a blanket mailing of information?

CAPT SOMERS: So Westfield, I'll start, I guess. We worked with our contractor first to come up with a list of like all the local healthcare providers. And then we also talked to the local health department director. And we talked to some of the community leaders there to say, "Where are people going for their healthcare?" Westfield's probably different than like the Portsmouth area because there's not as large a population and not as many providers. A lot of them are associated with like just a few clinics, you know. Most people go to just a few of the larger sort of -- I won't call them a chain. That's not the right word, you know. Like the larger clinics that have like satellite offices. So we reached out to those. And that's how we kind of narrowed down the list from, you know, just a Google search, you know. We tried to really target who was going. And we asked, for pediatric offices, so it's not just in the city of Westfield. Some people go to like Springfield or the Holyoke area. So we tried to get ones that seemed like a high likelihood of having the folks from Westfield go to those providers.

DR. ROGERS: Yeah, and I can add, Andrea, in our exposure assessments, we did not ask people about who their doctors were. That that was viewed as too much of an intrusion into people's privacy. But we did try in addition to the steps that Tarah described, we also tried to target healthcare systems as a way of sort of capitalizing on the existing networks for getting information out. So by identifying healthcare systems, we were able to target and to advertise and to get information in the hands of doctors at a range of hospitals, rather than taking kind of a one by one approach. And I think we've found in our exposure assessment sites that that has proven to be a pretty effective way of getting information out.

MS. AMICO: So if you didn't ask folks for their doctors, the results were sent to them as individuals. And then it would be on the individual, if they want to share that information with their provider, as opposed to their provider automatically getting a copy. I know we didn't do that here at Pease. But I know this is obviously we weren't part of an exposure assessment. So that's interesting. And that was a purposeful movement on ATSDR's part to not obtain someone's primary care doctor and not send them the results? It would be on the individual to decide if they wanted to share that information?

DR. ROGERS: Yeah. [inaudible]. And, you know, our expectation is that some people would be very happy to share their results with their physicians, but some people might not. And so it was important to us to put that choice in the hands of the individual. It's something that we work very hard to make sure that we're not sharing any private information about any individual without their consent.

MS. AMICO: Okay. Thank you.

ATSDR PFAS SUMMIT UPDATE

CDR MUTTER: Okay. Are any other questions on the exposure assessment? Okay. So let's move on to the ATSDR PFAS Summit Update. Pam, would you mind giving an update on this, please?

DR. PROTZEL BERMAN: Sure, no problem at all. So I wanted to just make sure everybody knows that our plans for the summit right now are on hold until we can really determine how and when we can engage our partners. But we wanted everybody to know that it's still very important to our vision, both for PFAS and for the work of ATSDR. And so we're hoping to identify ways that we can still do these things, given everything going on now and then maybe in the months coming. So if folks have ideas or thoughts about that, we'd be very happy to hear what your ideas are now that we're kind of living in a different environment and how we could do it. So but we did want to raise it and make sure you know it's still on our minds. So I'll stop there and see if folks have questions.

CDR MUTTER: Thank you.

MS. AMICO: This is Andrea. I actually heard from someone in Alaska today who was asking if there had been an update on this and, you know, if ATSDR was planning to move forward. So I think there is still some interest for sure. I don't know. I don't know if people would participate in something virtual or if they would just hold off for something in person. I personally think things in person are much more impactful and much more effective. But obviously we have to be safe. So, yeah, I guess I just wanted to say that someone did actually reach out to me this afternoon and ask for an update. And that, you know, I'm

glad to hear it still on the radar of ATSDR. And I think planning something in person is more beneficial. But if that's not something that can happen for a considerable amount of time, then maybe an alternative virtual thing should be considered at least, I guess.

DR. PROTZEL BERMAN: It's helpful to know, Andrea, that somebody asked about it. And maybe, Jamie, we could be proactive and send out an update to folks just to let them know that we're still thinking about it. And we're trying to adapt given our situation. So thanks.

CAP CONCERNS

CDR MUTTER: All right. Are there any other questions on that topic? Okay. So we come to our last topic, which is CAP concerns. And we already had a sub bullet under this is the COVID-19 efforts and work in PFAS effected communities from ATSDR. Rachel, would you like to give a little update on that, please?

DR. ROGERS: Yes, I'd be happy to.

CDR MUTTER: Thank you.

DR. ROGERS: So a couple of things to update on our work to understand the intersection between PFAS exposure and COVID-19. ATSDR recognizes that PFAS have been identified as an immune hazard. So we certainly hear the concerns of the CAP and recognize that it's an important question that needs an answer to. The first thing that we've done is put a statement on our PFAS website. I hope that you guys have all had an opportunity to go see that, you know. Unfortunately, because COVID-19 is so brand new, there's not a lot of data that we can report on specifically about the relationship between PFAS exposure and COVID-19. But our intent was to make a point to acknowledge that we do recognize that there is some potential for an intersection between PFAS exposure and COVID on our website as a first step. In addition to that, we are working very aggressively with the CDC COVID-19 response team to identify opportunities for collaboration to capitalize on the ongoing work around COVID-19 to try to get the data that we need to answer questions about how PFAS exposure may be impacting both susceptibility to COVID-19 but also how it might be impacting outcomes for individuals

who are infected by COVID-19. We've seen in both the human data and the animal data that PFAS have been shown to potentially affect antibody responses. So that has some interesting implications for some of the antibody testing that's being done. There are a lot of really important questions. And we're looking for opportunities to gather the data to better understand those relationships. We have reached out. Specifically, we've reached out to the CDC COVID-19 Response Epidemiology Task Force as well as the Environmental Health Task Force. And we've identified a couple of ongoing studies that will involve collecting biological samples and questionnaire information from cohorts who are expected to have a higher likelihood of COVID-19 exposure and COVID-19 infection. And we are engaging our lab to do PFAS analysis on some of those samples that will be collected as a part of the COVID-19 studies. Our hope is that by working with this existing COVID-19 study, we will have the statistical power to draw conclusions specifically about COVID-19. That's going to be a challenge. So we're going to have to see what the data shows there. But we're also looking at other opportunities that may have the potential to shed light on the relationship between PFAS exposure and COVID-19 illness. And that may also have the potential to give us some information about how PFAS exposure affects susceptibility to viral infection more broadly. So how it might impact susceptibility to the flu, for instance, or other viral infections. So we're trying to cast a very wide net and to consider all of our opportunities. We're talking to a lot of people and we're trying to proceed in a way that allows us to gather data in a very thoughtful way that gives us the greatest potential to answer the questions that we recognize need answers.

CDR MUTTER: Thank you, Rachel. Any questions on that topic?

MR. DIPENTIMA: I have one question. One of the things that might be something of interest would be when a vaccine is available for COVID, the relationship between vaccine efficacy and people who have been exposed to COVID in terms of their immune response to the vaccine.

DR. ROGERS: Absolutely. Yeah. Totally agree with that.

MS. AMICO: Rachel, thank you very much for that update. I do want to say that I did see the statement from ATSDR last week

really widespread shared, at least like on Twitter and social media from many different people. And, you know, I think it was well perceived that at least ATSDR did acknowledge that. I mean, I think for me personally, I wish it was more stronger. But I understand the limitations. I think it was a good first step. But I was really fascinated to see the multiple people that were sharing it, whether it was you know, journalists and lawyers and many different people sharing it. So I think that was really important for ATSDR to come out and make that statement. So I just want to say thank you for doing that. I just wanted to better understand something that you touched upon about working with the CDC Task Force and potentially testing -- you said something about testing for PFAS in people. So could you just touch upon that a little bit more? I just want to make sure I understand what exactly ATSDR will be doing with that.

DR. ROGERS: Sure. I can go into more detail there. Getting a little bit of an echo. Okay. I think that's good. So I should also state upfront that none of these plans are set in stone yet. It's kind of a very, very dynamic situation. It's fast moving. And so what I'm describing is some of the things we're talking about and thinking about, but nothing is 100% yet. The most, I think, promising option is working with an existing study that will be collecting biological samples. So blood samples for SARS, COV-2, antibody titer testing, as well as COVID-19 swab test for PCR diagnosed COVID-19, in addition to questionnaire data about people's experiencing symptoms, hospitalizations, any information that would help us understand severity of disease and folks who have been infected with COVID-19. And the kind of role that we would be playing would be measuring PFAS concentrations in those blood samples that were collected from members of that cohort. And so this would allow us to evaluate the associations between the PFAS serum concentrations and infection severity or experiencing of symptoms or actual PCR confirmed COVID-19 diagnosis. And by working with this existing COVID study as opposed to one of, say, our existing PFAS cohorts, we think that there's a greater chance that we will identify enough people who are diagnosed with COVID-19 to be able to have this statistical strength to draw conclusions about the relationship between PFAS concentrations in blood and COVID-19 infection.

MS. AMICO: Okay. Great. Thank you. And so are these people that have already tested positive for PFAS and there's blood already stored or are these people in the future that will get COVID that blood will be taken for other parts of a study but ATSDR's role will specifically be to look at PFAS?

DR. ROGERS: So this is a cohort that has been identified as having a high likelihood of exposure. So it's healthcare providers. It's first responders. None of these individuals have had blood drawn yet. This study has not started yet. The details are still being worked out. Yeah.

MS. AMICO: Okay. Great. Thank you.

DR. ROGERS: You're welcome.

CDR MUTTER: Okay. Are there any other questions?

MS. AMICO: I have a question not related to this. Is this appropriate to ask?

CDR MUTTER: Yes.

MS. AMICO: Okay. I know --

DR. REH: Can I just follow up on that real quick? You know, Andrea, one of the things that's really important for you guys to know is that, you know, CDC right now is so focused on COVID. And everything goes through the Emergency Response Framework. And they have been very receptive to our ideas and thoughts. You know, in some cases, we're having to train infectious disease experts on PFAS, which is not a bad thing. And we have not had a case yet where they've said, "Oh, yeah, we're not really interested in that." They've actually done the opposite and have said, "We need to learn more," and have said, "These are the type of things we're thinking about. Let's have a discussion." So it's really interesting to be involved with this right now. Because people are, you know, they're not just thinking it's COVID, COVID, COVID. They're thinking, oh, we have COVID. And we have PFAS. And they both have immune response issues. How do we learn more about it? So I just want to make sure you understand that. It's been a very positive experience for us as we engage the infectious disease folks, who are leading the COVID response, as they should be.

MS. AMICO: Great. Thank you very much. I just wanted to ask about the ecological assessment. I was just curious if we could get an update on that.

CDR MUTTER: Yes. So Dr. Clapp asked about that. So I was able to reach out and get an update for the transcript. So what I got was the request for health outcome data from the states were put on hold in light of the demands on the state health departments resulting from COVID. And they're preparing to restart the request process now. So that's the update I got. I don't know if anybody else has any further updates from ATSDR.

DR. ZADEH: Hey, Jamie, this is Mina. You're right on target. That's exactly where we're at.

CDR MUTTER: Okay. Great. Are there any questions about that? If so, I can take them back.

MS. AMICO: No, not about that. But I do have another question relating to cancer and things like that. If a community member -- and this isn't specific to Pease or whatnot -- but if someone lives in a community and they're concerned about high rates of cancer, like what is the path that they should take to obtaining data in their area? You know, I would assume that cancer information, obviously not identifiable information, but if somebody wanted to look at cancer rates in their area, like say, in their community or in their county, is there a way to go about doing that? And how would somebody request that? Is that through the state health department? Is that through the state cancer registry? Is that ATSDR and saying I'm worried that there's high rates of cancer in my town? L what is the best way to go about that?

MR. DIPENTIMA: I could answer that question for you, Andrea.

MS. AMICO: Okay.

MR. DIPENTIMA: It would be to the state health department who operates the state cancer registry under contract with Dartmouth. So if you have a special suspicion of a cancer cluster or anything of an elevated cancer incidence in the community, a county, or whatever, you would start with the knowledge, you know, corresponding with the state health department, who then would use their epidemiologists to work

with the state cancer registry to obtain all the incidents data relative to that particular cancer that you're concerned about.

MS. AMICO: And would the state health department be obligated to turn that information over to the community member that may be requesting that? Is that something that the state health department would look into? They check in with the cancer registry. And then they would do an analysis and then let the community know? Or could the raw data be available to the community?

MR. DIPENTIMA: Well, [inaudible] about the raw data because there are issues relative to confidentiality issues and accessing certain data in the registry. But any analysis and a review and a study of the cancer cluster would be public information that would be available to those who requested it.

MS. AMICO: Okay.

MS. MCNAMARA: Isn't there considerable the delay though, Rich, in the gathering and reporting of that, like three years?

MR. DIPENTIMA: Well, it depends. It depends on the situation, of course, how far back you want to go and looking at a cancer cluster. If you're looking back at cancer cases that have occurred 5 or 10 years, we're looking how long a period of time are you looking at in terms of your analysis of the cluster? If it's a short, you know, looking at one or two years data, that would be a lot shorter period of time. And there's a lot of work that has to be done in terms of doing medical records and interviewing patients or their families, et cetera, et cetera. So yes, to do a thorough investigation and a complete analysis to come up with a real definitive answer about a cancer cluster would take some time. You don't want it to be rushed.

MS. AMICO: Are you aware? Is there is there a place to go and look at -- because I've seen people reference cancer rates here in New Hampshire. And we have the highest rate of this and the highest rate of that. Where does that data come from?

MR. DIPENTIMA: The Cancer Registry. The State Cancer Registry. [inaudible] a cancer under contract with Dartmouth for the state health department or the State Department of Health and Human Services.

MS. AMICO: Okay. Thank you.

MS. MCNAMARA: I have a question also unrelated, if I may.

CDR MUTTER: Please.

MS. MCNAMARA: This goes back to Frank's initial presentation. I just wanted to follow up on the data gaps that he was speaking of and outreach to our local veterans. Frank, what are the data gaps that you're looking to fill specifically?

DR. BOVE: Well, a lot of them have to do with how much AFFF was used at a particular site, when it started, any information about how the AFFF was stored, if it was stored on site, any leaks, things of that sort are part of what we need. There are also questions that are more technical, hydrogeological type questions that probably they might not know. But operations at the base would be helpful, for example.

MS. MCNAMARA: So if Russ Osgood is still on, I know firefighters are not part of the study. But firefighters have worked very closely with, I believe, the Pease Fire Department on the base for years. So would the retired firefighters, the Portsmouth Fire Department may still have contact with through some association or be a benefit in that?

DR. BOVE: I mean, I think that would be very beneficial. But we could go over this when we have a condensed report to to present to you and go over the sites on base. There are six sites in particular that the historical reconstruction focused on. And then the focus in particular was on the KC 135 fire. But the other five sites, there's gaps in again in when AFFF started to be used, how much was used, you know. We had to make assumptions. And it would be nice to get more information on each of those five other sites.

MS. MCNAMARA: One of our past Deputy Fire Chiefs used to be in the Air Force as well. And, you know, he's retired. But he went to work for Portsmouth. And he since retired from Portsmouth. But unless Russ has more direct outreach, I could contact him and ask. And then, of course, there are ways for us to reach our local veterans, kind of more scattered. And a lot of them have passed on unfortunately. So, when you're at the point where you want to put out some outreach, I think we might have some local

ideas. Okay, I don't know how fruitful they'll be. But again, I mean, that you never know, with Camp Lejeune, we were able to find some retired Marines who had additional information on the water system that we didn't get from the Marine Corps. And also some activities that were occurred on base So and also where units were barracked on base, which the Marine Corps could not tell us. So you know, it's always important to, to involve the CAP in this effort. And that's, so I hope to do that.

MS. AMICO: There's an active Facebook group as well of Pease veterans and a lot of the that has come around the organizing of the Air National Guard study. But I know there's a pretty active group there and there's a lot of discussions there. So I think that's another resource we could tap into. Once this document is available, and you're looking for information I know that there's that group there already. And there's a a woman who's organizing around Air National Guard folks and just military folks in general. So we could definitely lean on her to during that time. I had another question about COVID. I didn't know if I think I forget if it was Rachel, or somebody mentioned antibodies, and COVID. And I'm just curious if you have any information about the effectiveness of antibody testing, like for example, if somebody suspected they had COVID. Let's say it's a PFAS community members suspected they had COVID couldn't get a test in March when they were sick and then had an antibody test and it was negative. Could that be a could that person feel strong, feel confident that that antibody test is actually accurate, or is it possible that if someone was a PFAS impacted community member who had COVID couldn't get tested, but then took an antibody tests months later, you know, I don't know enough about antibodies. I don't know if you guys do either just a question that crossed my mind.

MS. MCNAMARA: And you also have to wonder about the accuracy of the test.

MS. AMICO: Right, because I've heard conflicting information about that as well. I know there's like local urgent cares here that are doing antibody testing and telling people that they're 90% accurate. But I've also heard different things in the media about antibody testing. So I know that that's not the scope of exactly what we do here. But I'm curious for ATSDR, if you're

familiar with the antibody testing in COVID, and if people have compromised immune systems or potentially do, are these tests accurate? Or should people question the results? Even if they're not a PFAS committee member? I don’t know if anybody has any information they could share.

DR. ROGERS: So ATSDR is not involved enough in the COVID response to be able to speak to the accuracy of those tests, but I did just want to say that one of the things, one of the questions that we're hoping to be able to answer with some of our work around PFAS and COVID is understanding the relationship between serum PFAS concentrations and the SARS, COV 2 antibody titers. One of the study designs that we're pursuing will allow us to compare PFAS serum concentrations with antibody levels over three different time points in the same individuals, and so I'm really excited about that. I think we're hopeful that that kind of data could help us better understand that antibody response specifically as it relates to PFAS exposure. But aside from that, I will let others kind of speak to the accuracy of the test in general.

DR. PROTZEL BERMAN: So Andrea, I might recommend that we forward through Jamie some information that CDC has on its website and guidance around serology and testing and that may be helpful for you to have and better understand.

MS. AMICO: Right, thank you very much. And Rachel one more follow up question. The the data that you are hoping to collect is that just adults or is that children as well.

DR. ROGERS: So this particular study is going to be targeting a cohort of healthcare providers and first responders so it'll be all adults.

CDR MUTTER: Okay, are there any other CAP concerns before we close out the meeting?

MS. MCNAMARA: I just want to say thank you for arranging this remotely.

WRAP UP/ADJOURN

CDR MUTTER: Yeah. It's like we're all together seeing each other’s faces. We didn't have to take a plane flight and you know, do all that. It is good to see everyone's face on video for sure. All right. Any other questions, concerns before we close out? Okay, I don't see anything. Let me check. There's no hands raised. All right, guys. I don't see anything. So I'm going to close out the meeting and thank you for attending tonight.

DR. REH: Thank you.

CDR MUTTER: Thank you guys. Have a good night, everybody.