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CAMP LEJEUNE COMMUNITY ASSISTANCE

PANEL (CAP) MEETING

September 13, 2019

The verbatim transcript of the Meeting of the Camp Lejeune Community Assistance Panel held at the Hilton Crystal City at Washington National Airport, on September 13, 2019.

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P R O C E E D I N G S

(6:00 p.m.)

WELCOME AND INTRODUCTIONS

CDR MUTTER: OK, thank you for joining us tonight. We really appreciate it. This will be Camp Lejeune CAP meeting tonight. We have a few housekeeping items and then we'll go around and do introductions at the table. So if you don't mind, please turn off your phones or put them on silent. The bathrooms are out this set of doors in the hallway down the hall on the right. The emergency exits are highlighted by the exit signs at -- on top of the doors. Let's see, for those at the table if you'd like to speak, have a question or a comment, please put your name tent on end so we can identify you. I also want to put in a plug. I don't know, Pat, if you want to mention the claims clinic, Patricia? Tomorrow. Do you want to mention that?

DR. HASTINGS: Absolutely. There’s a claim clinic

CDR MUTTER: Can you bring the microphone little bit closer?

DR. HASTINGS: That would be good, wouldn't it. Laurine Carson is here. She is one of the leaders at VBA. And I'm sure she'll have more information if people have questions. But there will be a claims clinic tomorrow with a number of the claims SMEs from around the country to assist.

CDR MUTTER: Thank you. And the timing for that is 9:00 a.m. to 1:00 p.m. And it's in the Washington Room which is right behind us. So it's right next door. The last thing on the agenda is we have a place for CAP updates, community concerns. We have a brief amount of time for community concerns at this meeting since it's a working meeting. But tomorrow over half of our agenda is community concerns and questions so we'll have a

little bit of time this after -- or tonight, but more time tomorrow for those community concerns. So with that, I'm going to hand it over to Dr. Breysse.

DR. BREYSSE: Good even -- good evening, everyone. Thank you for being here. Why don't we begin by going around with introductions. So my name is Patrick Breysse, I'm the Director of ATSDR.

DR. BOVE: My name is Frank Bove. I'm -- I'm working on the Cancer Incidence Study.

MR. HANLEY: I'm Jack Hanley, I'm with ATSDR, I manage the Public Health Assessment, on soil vapor intrusion.

MR. TEMPLETON: Tim Templeton, CAP member.

DR. BLOSSOM: Sarah Blossom, CAP technical advisor.

DR. CANTOR: Ken Cantor, CAP technical advisor

MS. FORREST: Melissa Forest, Department of Navy representative.

MS. FRESHWATER: Lori Freshwater, CAP member.

MR. ENSMINGER: Jerry Ensminger, CAP.

DR. HASTINGS: Pat Hastings, VA Post Deployment Health Services.

MR. PARTAIN: You're next. Go ahead.

MR. UNTERBERG: Craig Unterberg, CAP.

MR. PARTAIN: Mike Partain, CAP.

MR. ASHEY: Mike Ashey, I'm a CAP member and a Camp Lejeune marine.

MR. ORRIS: OK, I'm Chris Orris, I'm a CAP member.

MR. MCNEIL: John McNeil, CAP member.

MR. HODORE: Bernard Hodore, CAP member.

CDR MUTTER: CDR Mutter, CAP Coordinator for ATSDR.

DR. BREYSSE: So I thought I'd just take a minute for those who might be new to remind us all what the mission of the CAP is. And so ATSDR establishes community assistance panels to help us with some of our community health related activities. In this case, the purpose of the CAP is to voice of concerns of the effect of community of Marines and their families, and to provide input on ATSDR's public health activities. Members of the CAP will provide individual input as well as represent the views of the community and groups to which they belong. ATSDR will consider the views of the -- expressed by CAP members during our decision making. So this is an important part of what we do at ATSDR. And we want to make sure that our efforts are aligned with what the community is expecting, what the community wants. And we want to make sure we take as much advantage as we can of the combined expertise and input that the committee members provide. So I want to again thank the CAP members for their commitment to helping us do our work and I'd like to begin this meeting by just recognizing that going forward. So Jamie, it's about, I was about to ask Jamie if there any other announcement she needs to make.

CDR MUTTER: There is. So we realize the live feed is not working right now, they're working to correct that. So if you are getting emails from people, please let them know we're trying to work on the technical difficulties of the live feed.

DR. BREYSSE: So I think that's all I'd like to say in terms of my introduction. Before we start, if there's any other comments anybody would like to make before we jump into the agenda,

please feel free to raise your tent. Seeing none, why don't we move on to the agenda then with the Veteran Affairs Update.

DR. HASTINGS: We do have the CAP Lejeune Family Member Program. They are -- the slides have been provided to the CAP members and they are prepared to give a briefing on the update for that program.

CDR MUTTER: Are you on the phone? Do we have the VA family member program on the phone?

DR. BREYSSE: Did we?

DR. CARSON: I was asking whether or not we were connected.

CDR MUTTER: We have the phone line open.

DR. CARSON: OK.

ACTION ITEMS FROM PREVIOUS CAP MEETING

CDR MUTTER: So maybe if you could see if they called in and maybe we can go on to ATSDR. Well let's go on to the agenda -- the action items since that's next on the agenda while we get the VA on the phone. OK, so that is me. So I'll go ahead and get started with that. OK, so the first series of agenda items are for the VA. You know, again, I'm going to start, I'm going to do this a little different. I'm going to start with Navy Marine Corps in case they need questions from the phone. OK. So the first action item for the Navy Marine Corps is the CAP requested the DON Marine Corps to consider doing monthly sampling on drinking water supply wells to prevent potential exposure in the future.

MS. FORREST: Camp Lejeune samples drinking water wells semiannually for a variety of contaminants which include VOCs, SVOCs, metals and explosive constituents. Potable water supply,

well sampling on Camp Lejeune is performed at a standard that meets or exceeds the requirements of the Safe Drinking Water Act. Camp Lejeune believes this proactive voluntary sampling is protective of human health.

CDR MUTTER: OK. The next agenda item is the CAP asked how much money was diverted from the Camp Lejeune water treatment system upgrades to other government projects.

MR. ASHEY: Jamie.

CDR MUTTER: Yes.

MR. ASHEY: Can I go ahead and comment on that please?

CDR MUTTER: Yes.

MR. ASHEY: On that response. Melissa I appreciate your response from the Department of the Navy. But sampling once a year when you have known plumes at Camp Lejeune, and drinking water wells are pulling in some cases 10,000 gallons an hour, creating a hydraulic gradient of groundwater, should re -- should require Camp Lejeune, the Navy and the Marine Corps to test those wells more than once a year.

MR. ENSMINGER: Is that semi--

MR. ASHEY: You said annually or bi-annually?

MS. FORREST: I said semi-annually.

MR. ENSMINGER: Semi-annually.

MR. ASHEY: Bi-annually.

MR. ENSMINGER: No semi --

MR. ASHEY: So every six months is still not enough. They should be tested once a month and --

MS. FORREST: Its semi-annually which is twice a year.

MR. ENSMINGER: Semi-annually.

MR. ASHEY: Yeah.

MR. ENSMINGER: Twice a year.

MR. ASHEY: Right. Bi-annually, semi-annual, same thing, twice a year. So you test, say in January --

MR. ENSMINGER: No bi-annually is every other year.

MR. ASHEY: You test again in July. What happens if the plume hits the well, one of those wells in February? You're not going to know until July that you're distributing contaminated water throughout the base. Right.

MS. FORREST: I, you know, I can't say that that would necessarily be the case. I know that we sample twice a year. And it's actually more than what's required. You know, by law you're required to sample the treated water, so we're not even required to sample at the wellhead. So they're doing more than is required. I took back your request for monthly. Discussed it. It was decided that they are going to stick with the semi-annual sampling. I don't -- can't give you any other information than that.

MR. AHSEY: So, the people that made that decision, were not the experts in remediation in the science of remediation, that was a --

MS. FORREST: No this was --

MR. ASHEY: Business --

MS. FORREST: No this was the environment, no -- we have a large working group that works on these action items. So it was not just a business management type function it was --

MR. ASHEY: And the geologists, I'm assuming from CH2M Hill, are OK with testing twice a year?

MS. FORREST: It was decided that twice a year is adequate.

MR. ASHEY: OK. Just for the record, having run the largest petroleum contamination cleanup program in the United States for ten years, actually over a decade, I just want to state for the record that once every six months is not enough. And it should be once a month to prevent another debacle like the one we're dealing with now. And can we keep that action on one -- on our list for another meeting please?

MS. FORREST: Oh -- I can take it back again. But unless they make a decision different, the answer is going to be it was, you know, we addressed it at the last CAP meeting. So I mean --

MR. ASHEY: So, if a plume hits one of those wells, you don't have any air strippers on the --

MS. FORREST: Well --

MR. ASHEY: Hang on. You don't have any air strippers on the inlet side of the water treatment facilities. So there's no way to even treat that water even if you knew, other than to shut that well down, there's no way to treat that water, even if you knew there was a problem, correct?

MS. FORREST: Well, I just want you to -- I just also want to point out that that's not the only well sampling that goes on. We have many, many monitoring wells all around these plumes. So they're monitoring those on a regular basis as well. So they're

following tracking the movement of the plume, it's not just sampling on the drinking water wells. So this is a very large, intricate involved, you know, system of data. A group of wells and data that they have that they use to monitor and address changes with the plume. So I --

MR. ENSMINGER: Oh I -- you said that they're continuously monitoring these plumes.

MS. FORREST: I -- there are multiple wells, monitoring wells different places around, you know this.

MR. ENSMINGER: I know that.

MS. FORREST: Yeah.

MR. ENSMINGER: But are you saying that they -- they're continuously monitoring the movements of the plumes?

MS. FORREST: There's different sampling requirements at different areas on the base, I --

MR. ENSMINGER: Well that generates a new question for me for next -- for the next meeting. I would like to see the latest data on all of the contamination plumes, and see how -- if and how far they've moved from their -- from the past delineation of the plumes that we have gotten.

MS. FORREST: Whatever their most recent data is, I -- like I said, not every well is sampled with the same frequency. So I --

MR. ENSMINGER: Oh I know, but I want to see -- I want to see if these plumes are actually -- are moving from what we --

MS. FORREST: You would like whatever, a summary of --

MR. ENSMINGER: The --

MS. FORREST: Plume movement?

MR. ENSMINGER: Yeah and delineation of -- they can give us a diagram of where these plumes are located.

MR. ASHEY: Melissa, may -- maybe you misspoke that the plumes -- you said that the plumes are being monitored as they're moving but --

MS. FORREST: No, what I was trying to say --

MR. ASHEY: You're not sure that that's the case.

MS. FORREST: No that is not what I'm trying to say. I'm trying to say that we have monitoring wells at various locations around Camp Lejeune for different environmental restoration sites. And so they look at that data in conjunction with all the other data that they have on the base. You know, so they, it's not just looking at the drinking water wells to determine, you know, if something's getting ready to hit them. They're also looking at, you know, what they see in their monitoring wells to see if there's something that says hey it's moving towards, you know -- I -- it's a very complicated -- it's not like a one --

MR. ASHEY: I know that.

MS. FORREST: Sentence answer to this, is what I'm trying to say.

MR. PARTAIN: Well with all due respect, Melissa and I understand and appreciate what you're here and why you're here for, but to the point like you said, it's complicated. And this is something that is administered by scientists, by contractors and by DoD personnel at Camp Lejeune. They used to come to the meetings, they don't, they put it as -- HQ Marine Corps put out a disclaimer out saying that they were a distraction. I forgot the exact language. But the questions that Mike's asking, as you

know, Mike is, or was, oversaw the UST program in the State of Florida. And is very familiar with what we're dealing with. That's what he did for a living for 30 years?

MR. ASHEY: More than a decade.

MR. PARTAIN: OK. Anyways the questions that Mike's asking, you know, and the dialogue that we need here, needs to be with the people doing these reports, doing these studies. And it needs to be not a question six months or four months later an answer comes back. And then we ask another question. It needs to be a dialogue that happens here and now.

MS. FORREST: OK. Well all I can say is these issues are addressed at the Camp Lejeune Restoration Advisory Board. If you want to talk with the representatives from the base, the scientists, the engineers who run the cleanup program, I recommend you attend the Restoration Advisory Board. As Dr. Breysse said, the purpose of this is to provide input to ATSDR and to what they're doing for their health studies.

MR. PARTAIN: And the input that we are asking for is important for their studies.

MS. FORREST: Well I --

MR. PARTAIN: And if the government, if the Marine Corps would love to fly me and Mike and Jerry, well Jerry has to drive down the road but, over to Camp Lejeune, and assist, because Camp Lejeune is not a town like Orlando, Florida or Tampa, Florida, where people live and work and the contamination happened there. As I've said many times before, over the what 12 years I've been doing this, Camp Lejeune is a base. I was born there. It's on my birth certificate. But as far as living there, Winter Haven, Florida is my hometown. The contamination happened at Camp

Lejeune. Other than being born there and staying there for six months after my birth, it has no connection to me until I ended up with cancer. So for the Navy and the Marine Corps to sit back and say, well it will be addressed by the RAB, no. This is a public forum and, you know, not a public forum but a public meeting, and the Marine Corps and the Navy were here until they got embarrassed by the fact that they concealed documents that we found back in what 2010 and they pulled out after all that -- all the pressure and stuff that came out from that. They need to be here. The information that they have, especially with the members of the CAP, is valuable for ATSDR. And to sit behind a statement, and like I said, this is not directed towards you, but to sit behind a statement that you can attend the RAB meeting is insulting. And you can take that back to the powers that be.

CDR MUTTER: Thank you Mike. So can I just --

MS. FORREST: Before you move on, I'm sorry Jamie, just real quick --

CDR MUTTER: Can I just -- can I ask if the people on the phone can hear me, with the VA?

MR. JONES: Yes.

CDR MUTTER: I thought I heard somebody.

MR. PARTAIN: They hung up.

MR. JONES: Yes, yes we can hear you fine.

CDR MUTTER: OK. Great. So we will be getting to you shortly. I just wanted to make sure we could hear you. I also want to remind you, if you have a comment or question to put your name

tent on end so we can see who is -- has a question. It's easier for us. OK.

MS. FRESHWATER: Maybe we should ask if they'll fly all of us to the next RAB meeting. Maybe we should ask if they would -- if the department maybe would bring us down to one of the meetings.

MS. FORREST: We, I can certainly take that back.

MS. FRESHWATER: I have a hard time traveling without, you know, I'm not rich. So I'd be happy to attend though.

CDR MUTTER: Thank you, so I --

MR. ASHEY: Melissa. Is it --

CDR MUTTER: Thanks.

MR. ASHEY: Is it a money issue? Because analyticals are not that expensive.

MS. FORREST: Are you talking about the, going back to sampling monthly?

MR. ASHEY: Yeah.

MS. FORREST: I -- all I can tell you is it was decided that we will continue to sample twice a year.

MR. ASHEY: So, the Marines and their families that serve there now are potentially at risk and dependent on the Navy and the Marine Corps doing now, what they didn't do for 30 years, which led to not only this CAP, but many of us sitting in this room suffering from the effects of that. So we're right back to where we started, with the same attitude and the same mental view of their responsibilities toward ensuring that the water that the military personnel at that base drink is safe and will remain safe, and it's not a risk.

MS. FORREST: Like I said, we're doing more than is required and they consider that, you know, protective.

CDR MUTTER: Thank you.

MR. ASHEY: You just --

MS. FORREST: I can't -- I can't --

MR. ASHEY: Wait a minute -- wait a minute --

MS. FORREST: Say any more than that.

MR. ASHEY: You -- you're not doing more than what's required, you said you're doing bi-annual -- you're sampling twice a year as required by EPA standards.

MS. FORREST: No, no --

MR. ASHEY: More than you're required would be doing it once a month.

MS. FORREST: No as -- by my understanding it's the finished water that has to be sampled on a treated water system. They are sampling at the wellheads twice a year, which is more than what is required. That's my understanding of it.

CDR MUTTER: OK, I want -- I want to move our agenda along.

MR. ASHEY: OK.

CDR MUTTER: If that's OK. So the next question is the CAP asked how much money was diverted from the Camp Lejeune water treatment system upgrades to other government projects?

MS. FORREST: We are unaware of any monies being diverted from Camp Lejeune water treatment system upgrades. Questions concerning funding for other government projects are outside the

scope of the CAP and should be directed to the appropriate government agency.

CDR MUTTER: Thank you, Mike.

MS. FRESHWATER: Wait, wait.

MR. ENSMINGER: No -- no.

CDR MUTTER: Do you have a question or do you just -- Oh OK.

MR. ENSMINGER: The Commandant of the Marine Corps came out publicly in the press and said that there was money being diverted by the Administration, away from the improvements in the drinking water system aboard to base.

MS. FORREST: When I checked with the representatives at the base, from what they could find they were not aware of any monies being diverted. That's, I have -- that's the information that I have.

MR. ENSMINGER: [Inaudible].

CDR MUTTER: OK. So, are there any other questions before I move on? OK.

MR. ORRIS: Hold on. So, I just want to circle back to the previous one Melissa. I know you've mentioned before that you know as a CAP we could go and sit in on a meeting with the Restoration Advisory Board? What about creating a liaison between that board and this panel, or appointing members of this panel to sit on that board as well, to help clear up some of this confusion.

MR. ENSMINGER: I'm on the RAB, and it's a -- it's a damn joke.

MR. ORRIS: So, there we have it.

CDR MUTTER: Tim?

MR. TEMPLETON: Yeah, I'd like to make a quick comment, especially with regard to the scope. While there is still contamination that is in the ground there at that base, I think that falls within our scope.

CDR MUTTER: OK, so the next question for the Navy Marine Corps is, the CAP asked questions regarding Hurricane Florence and how closely the base is working with state and the EPA to see how the hurricane affected the plumes etc., on base. Ms. Forest stated that this information was provided in a previous CAP meeting.

MS. FORREST: And the response is this question was addressed in a previous response. It was, yeah.

CDR MUTTER: OK. So the next action item is the CAP asked DON Marine Corps to verify that temporary buildings were not being built on top of known plumes, since they have wooden floors.

MS. FORREST: OK. Construction of temporary or permanent structures on top or near known plumes is rare on Camp Lejeune. Alternate locations are utilized when they're able to meet the mission requirements and real estate constraints on the project. When construction is required on or near known plumes, the site location is assessed for vapor intrusion and/or construction with vap -- and/or constructed with vapor mitigation systems. An example vapor blower systems, chemical vapor barriers, etc., per our base protocol. Temporary buildings on top of plumes are required to have open skirt designs to further prevent potential vapor intrusion.

CDR MUTTER: Lori?

MS. FRESHWATER: Can I get that - a copy of that in writing?

MS. FORREST: Well it will be part of these -- the minutes. Correct?

CDR MUTTER: The transcripts.

MS. FRESHWATER: That just takes a long time. If you can just email it that would be great, thank you.

MS. FORREST: I can email it to you.

CDR MUTTER: Tim? Oh sorry, your name tent was up. I'm thorough. OK. The next action item is the CAP stated that the SVI mitigation system for building HP 57 was offline during Hurricane Florence. They asked what actions the DON Marine Corps took to ensure the sensitive population, women, and the building was not exposed during the hurricane and also with that the sensitive population had been notified of the mitigation system being offline.

MS. FORREST: The operation of the sewer vetting system in building HP 57 provides a secondary engineering control, in the event there is long term vacancy and the P traps are allowed to dry out, which did not occur during the hurricane. The original source of vapors via the dried P traps in the mechanical rooms and a hole in a sewer venting pipe were repaired in December 2014. And there have been no indoor air detections for TCE above the residential indoor air screening levels since those repairs were made.

CDR MUTTER: Chris?

MR. ORRIS: How many detection systems did they have above residential exposures before those systems were repaired? And did you notify those residents at those times of their exposures? You said you -- you said you repaired these systems in 2014.

MS. FORREST: That was when we first discovered that, you know, that was the vapor intrusion issue with that building.

MR. ORRIS: OK. Did you notify all the residents at that time that they had been exposed to levels above residential --

MS. FORREST: We have addressed this in a past CAP action item? And I don't have those details, you know, all in my head right now.

MR. ORRIS: I've never -- I've never really received a satisfactory answer to that.

MS. FORREST: I know we posted fact sheets and have done some other notification, but I don't have all the details in my head right now.

MR. ORRIS: OK. Can you can you revisit that at a later date with me?

MS. FORREST: Or I'll help -- I -- maybe I can look back and see which meetings we've addressed it and then we can find it in the responses.

MR. ORRIS: Thank you.

CDR MUTTER: Thank you. So the next action item, the CAP asked if there were any plans for the base to deviate from standard land use controls, construction restrictions, etc. due to the emergency situation regarding the hurricane. If there -- they were deviating from any standard building controls, restrictions, etc., would they notified the public.

MS. FORREST: No, there are no plans to deviate from land use controls.

CDR MUTTER: Thank you. OK, moving on. The CAP requested that a representative from CH2M Hill attend the CAP -- Camp, excuse me, the Camp Lejeune CAP meetings.

MS. FORREST: And this is a repeat question. It was addressed at the April 2019 CAP meeting.

CDR MUTTER: OK. Last one, nope we have two more. So Navy Marine Corps will provide information on the RAB meetings to ATSDR and it will be sent to the CAP via email.

MS. FORREST: And that's complete. We did that for the last RAB meeting, correct?

CDR MUTTER: I believe so.

MS. FORREST: Yeah.

CDR MUTTER: Yeah, I'm pretty sure. I will resend it out, just in case. I will verify that. OK, so the last one, the CAP asked if the DON Marine Corps received informed consent from the parents of the children attending the elementary school that is being built near plume.

MS. FORREST: TT 86, the elementary school has been assessed and vapor intrusion is not occurring. So --

CDR MUTTER: Jerry?

MS. FORREST: Did you have --

MR. ENSMINGER: Are you done with the Department of the Navy?

CDR MUTTER: That was the last one. Yes.

MR. ENSMINGER: Good. I'd just like to address something. You know, I hear Mike talking about the people making postings on social media and on different websites related to Camp Lejeune.

And they make statements like, well the CAP hasn't done anything since 2012. Dr. Breysse explained what the role of the CAP is. The CAP -- the CAP is not responsible and does not create legislation to get bills passed to provide the victims of Camp Lejeune with benefits, or relief. That's up to us, the individuals, not the CAP. The role of the CAP is to sit and advise ATSDR of the concerns of the community and to assist ATSDR in their studies. Now, if you want to see action related to legislation go to your congressman. Go to your senators. I can't tell -- I can't tell you how many trips I've made to Capitol Hill in the last 22 years. I mean I know every bump in the I-95 personally, between North Carolina and Washington DC. My butt knows them. So I just wanted to clarify that. That when you see these answers that we get from the Department of the Navy and no, that's not -- no hit on you, Melissa, you're just a spokesperson, you're the in between. But when you see these answers that she carries back from the hierarchy over there, our only option that we have left is to go to our elected officials and squeeze their damn head until we get the answer that we're looking for. And make them provide it. So keep that in mind. And every one of you has a congressman and every one of you has two senators. And I don't take no for an answer. And neither should you.

CDR MUTTER: Thanks, Jerry. OK, so we have a few action items for ATSDR. I'll combine a few of them. So ATSDR will provide the CAP with a website link to the ATSDR assessment of the evidence for the drinking water contaminants at Camp Lejeune and specific cancer and other diseases document, as well as Chapter D of the Water Modeling Report. Those were both sent on August 28th. So if the CAP did not get them please let me know and I'll resend to you. Let's see, so ATSDR will schedule another in person

technical soil vapor intrusion meeting to capture the CAP's concerns. That was held this morning and Jack will talk about that a little bit later. And the last one is the CAP requested that the interpretation -- yes, the interpretation of the Camp Lejeune Families Act be an agenda item for the September CAP meeting. We had some scheduling issues with that. So we're going to have to delay that agenda item to the next in person meeting. And so that will be scheduled for that time. Do you want -- I see you going for the name tent. All right.

UNIDENTIFIED SPEAKER: All right, are we on now?

CDR MUTTER: No.

MR. ASHEY: OK. Can I go back to, I have one more question for Melissa.

CDR MUTTER: Sure.

MR. ASHEY: OK. You mentioned that the monitoring wells around the plumes are being sampled to determine whether they're stable or they've become mobile, correct?

MS. FORREST: They're sample -- I mean, you know, groundwater moves. So yes, they're monitored on a routine basis. I don't know the frequency or the number of wells and different locations.

MR. ASHEY: OK that was going to be my question, what was the frequency of sampling of the monitoring of the wells.

MS. FORREST: I think the frequency in all likelihood is going to vary depending on the site, because it's something that, you know, Camp Lejeune works with state regulators, and, you know, to determine what's needed to monitor and, you know, keep track of what's happening with the contamination. So it would be

different per site. So I don't think that there is one set, you know, time like every February and every November sort of deal. But, you know, you have to look at it site by site.

MR. ASHEY: You know who makes the decision on when those monitoring wells are sampled?

MS. FORREST: Well, if it's -- these -- when we're talking about installation restoration sites, that's what I'm saying. It's the Navy working in conjunction with representatives from the North Carolina, the state regulatory agency. And I can't remember what the acronym is for that right now. It's gone out in my head, but North Carolina, is it that the Department of Environmental Quality? DEQ, isn't that who it is? Yeah, the North Carolina Department of Environmental Quality. So they have oversight over, you know, everything that the Navy does for environmental restoration, the monitoring, the frequency, it's agreed upon with -- through a partnering process with regulators, which I'm sure you're familiar with, because --

MR. ASHEY: Jerry, does the state of North Carolina, the regulators, do they have unfettered access to these monitoring well at Camp Lejeune, and to do independent sampling of the drinking water wells to your knowledge?

MR. ENSMINGER: No, they don't.

MR. ASHEY: So it all has to be prearranged.

MR. ENSMINGER: Yeah they have to arrange it, yeah.

MS. FORREST: They -- well they rely on, the Navy does the sampling and then they share the results with the state is typically the process.

MR. ENSMINGER: No state can -- the state can demand to go in and make -- take split samples and, for control. That's what happened in, what was it '81, when they found the contamination in the Holcomb Boulevard system when they had the -- January '81, wasn't it, Mike? January '81, right? No that was January '85, what the hell am I thinking of, yeah. Yeah January of '85. The state went in to take samples and they took split samples and the Marine Corps and the Department of the Navy thought all that was really -- that was going to be cool because they thought they had all the contaminated wells from the Hadnot Point system taken offline. And boom, I mean 141 parts per billion at the Berkeley Manor Elementary School of TCE. Yeah.

CDR MUTTER: Thank you. I want to move on --

MR. ASHEY: That answers my question.

CDR MUTTER: OK, great. Thank you. So let's move on to the VA action items. We have a few of those. And I think we're running a little bit behind our time, which is OK, but let's try to move on. So the CAP inquired how many of the 367 clinically ineligible based on a limitation of the 15 conditions would actually be eligible based on sufficient causation according to ATSDR?

DR. HASTINGS: I believe that's going to be included in the --

CDR MUTTER: In the presentation?

DR. HASTINGS: In the presentation, yes.

CDR MUTTER: OK, so let's just hold on that and if you have any questions on that we'll address them later. So the next action item is the CAP requested the VA verify how many immunologists are on staff?

DR. HASTINGS: 124.

CDR MUTTER: Tim?

MR. TEMPLETON: I was told three. I see an immunologist through VA. And when I went -- when I asked for a second opinion, at VA, I have personal experience with this one. There were three. I don't know how they grew from three to 129 in a matter of a few months.

DR. HASTINGS: No I took what you said very seriously. And if you need some help with a referral, I'm happy to do that. But I took what you said very seriously. And I've got the list here.

MR. TEMPLETON: Yeah, I'd love to see it. And I think my immunologist might want to see it too.

CDR MUTTER: All right, thank you. So the next VA action item is that CAP asked if a spouse of a veteran passes away from kidney cancer and they are awarded VIC or VIC, I'm not sure, are they being counted in the tables that are being presented?

MS. CARSON: OK, so I'll take the first stab at this. This is Laurine Carson from the Veterans Benefits Administration. I am the Deputy Executive for Policy and Procedure. The question with regards to the, I think is DIC benefits that's being referenced here not VIC, DIC, and that's Dependency and Indemnity Compensation benefits for survivors of veterans. If the spouse passes away, which lists -- I need a clarification as to which list are you talking about? If you're talking about are they included in the family care list, then that list is separate and apart from their DIC eligibility and benefits, and it would have no correlation between them as a family -- getting family care reimbursement for Camp Lejeune for their own conditions and

being compensated for the veteran's death. Those are two different --

MR. PARTAIN: Yeah, what we were referring to was the tables that the numbers of the conditions that were presented at the last meeting.

MS. CARSON: From the family care services?

MR. PARTAIN: For everything. For both the dependents and the service members.

MS. CARSON: But if you --

MR. PARTAIN: Because like for example, we -- and I don't remember the tables, but if there were 200 leukemia cases counted for Camp Lejeune and a dependent wife files for her husband who had died of leukemia, is that number being tallied with the counts for the service members with leukemia, who have gone through the VA program? Is it reflective there or is it showing up somewhere else? Or are they being counted at all? That's what we were asking.

MS. CARSON: If a veteran died of leukemia, his numbers will show up in the number of disability claims, if it's -- if he's -- if she's receiving DIC, it would show up in a number of claims completed.

MR. PARTAIN: You mean the actual counts? Because there was a table that was presented last meeting of all the conditions and counts.

MS. CARSON: I believe that table was from family care services based on the reimbursement of individuals.

MR. PARTAIN: OK.

MS. CARSON: So that's a separate table. And that's just -- those are family care, not everybody on that table would be a person who filed a claim for disability benefits.

MR. PARTAIN: OK, because I believe I was asking the question.

MS. CARSON: About that.

MR. PARTAIN: Back then. Well I was asking -- we were talking about that, but I was asking if we had counts for the actual conditions that have been awarded. And that was -- I crossed over and asked that question to that. I don't remember the -- I'd have to see the tables. But I was wanting to know -- because we had count -- we had counts for veterans who had applied for specific conditions kidney cancer, bladder cancer, leukemia, non-Hodgkin's lymphoma. And we wanted to know whether or not, if a family member, you know, a spouse had represented a claim that their spouse was being captured on the actual counts of how many conditions were awarded to at Camp Lejeune. Rather than showing up on the family table. That's what I believe it was.

CDR MUTTER: Would it be helpful if you -- if we -- when we had a presentation if you pointed out maybe where you're referring to?

MR. PARTAIN: Yeah, when we get to that I can.

CDR MUTTER: Yeah.

MR. PARTAIN: Point that out again.

CDR MUTTER: OK. Would that be helpful? OK. So let's move on then. So the CAP requested of the VA to confirm how many individuals have successfully appealed to the BVA and gotten residency approval via the appeal process.

MS. CARSON: OK, so I would ask who's on the phone from family services? Do they know the appeal rate? Pat do you know who's on the phone?

MR. JONES: Yeah Kip Jones here from Camp Lejeune Family Member Services and Donna Williams. And we had two, you know BVA requests to overturn our residency requirement.

CDR MUTTER: That was two? Is that correct from the phone, that was two requests?

MR. JONES: Yes. That and I'm assuming, and let me clarify the question you -- that I thought it was asked how many appeals we received from the BVA that overturned our decision to deny residency and the answer to that is two.

CDR MUTTER: OK, thank you.

MR. PARTAIN: Two out of how many denials. I'm not sure who was speaking but you had two appeals, but how many denies -- denials for residency are out there?

MR. JONES: We'll have to get back with you on that one because the -- you asked how many appeals that were denied?

MR. PARTAIN: No how many denials were there in the first place for residency, unable to verify residency aboard the base.

MS. CARSON: So that I can summarize that, Mike and make sure that we have it. What you want to know is of all of the claims that were denied for family care services, family member services, that how many of those were appealed? And then of those appealed, how many were granted and denied? Is that correct?

MR. PARTAIN: Go ahead.

MR. UNTERBERG: Yeah, this says there were 931 denials, because of three different conditions or three different situations, but they don't break it out for each of these three, so there's the three is not been in Camp Lejeune residency, relationship to eligible veterans and veteran eligibility criteria. So we'd like a breakdown of that 931 number on each of those three items.

MS. CARSON: Of those that were denied how many of those actually were appealed, and of those appealed, how many were granted and denied?

MR. PARTAIN: Well we got the appeal part but we want to know the basis -- like, there's three categories, there's 931 denials on those categories. Where does the 931 spread out among those three criteria?

CDR MUTTER: OK, thank you. So that would be an action item. So let's move on. The CAP requested that at CAP meetings information for total people who have been approved include people who are being treated and also people who have been approved that are not currently being treated.

MR. JONES: So, we have 400, let me get the numbers here. So we have 481 family members that are getting treatment for one of the or more of the conditions. And then we have 688 family members that are clinically eligible. So if you do the math that -- there's 207 that are not getting active treatment right now.

CDR MUTTER: OK, thank you. The next action item, the CAP stated that people. oh I'm sorry. Go ahead please.

MR. UNTERBERG: Yeah this is Craig Underberg. We can get to it on the slides. But when we look at the eligibility, it says 63,000, almost 64,000 people have applied for the program. And then when they go through the reasons for denials, it's a much -- I mean,

we have 3,000 here, 931 in another category, 385. So that's a big gap between the 64,000 that have applied and the amount that had been approved. So we'd like to know where that discrepancy is, and we're --

CDR MUTTER: Craig, would you mind if we -- get to the presentation and maybe some of the questions will be addressed in the presentation? Or if not, we can circle back. Would that be OK? Because I'm figuring the presentation might answer some of the questions. So if you wouldn't mind holding on to your questions until after the presentation, I think that -- it could be helpful and I'll make a note of which action items we're going to circle back to. Lori?

MS. FRESHWATER: The -- going back to the previous action item, I just want to point out that this is something that we have asked to try and, you know, improve this -- the communication situation. Because that was an action item. And now we're not really getting an answer. And now we have to re-ask and are we going to have to wait now until the next CAP meeting to find out the answer that we tried to get at the last CAP meeting? So I, you know, we're trying to find out are people being denied because they're having trouble proving residency on base? And that shouldn’t be hard --

DR. HASTINGS: I thinks some of the --

MS. FRESHWATER: Numbers to come up with.

DR. HASTINGS: Sure. I think some of the questions will be answered in the presentation, and if there's something specific, I'm totally happy to run it to ground and give the answer back to Jamie so she can get it back to you.

MS. FRESHWATER: Is the present -- so the action item that we -- you just said you didn't know the answer to is, in the presentation?

DR. HASTINGS: You're talking about the question that was just asked about the 63,000?

MS. FRESHWATER: No, I'm sorry, the action item before that we were talking, about the residency and the appeals, breaking down those numbers. It's OK. I just want to -- I just want to point out even this, our communication, I feel like there's got to be some -- a better way to communicate in between meetings and say, no this is actually what we're looking for, because it's taking a long time between meetings to then ask for the next one. If that makes sense.

DR. HASTINGS: It does.

[Inaudible Comment]

CDR MUTTER: All right, so I'm going to move on and if --

MR. ORRIS: Hold on.

CDR MUTTER: I'm sorry, I didn't see your hand.

MR. ORRIS: I'm sorry, because I want to circle back to this. Because I'm one of the individuals who falls into the category of administratively eligible, but I'm not clinically eligible. Just to circle back again, I was born at Camp Lejeune in '74, with a congenital heart defect which ATSDR has found sufficient causation for heart defects. However, the family care program does not recognize, right now, congenital heart defects as a covered condition. When I'm looking at these numbers, and what I'm trying to find out, because part of this was my question as well, when I go to Congress and I tell them that we need to

modify the legislation to include conditions, I've got to come up with how many people are being denied for these conditions. And so from these numbers, what I want to know is how many of these administratively eligible but not clinically eligible are with conditions that have sufficient causation as shown by ATSDR.

CDR MUTTER: Thank you, and I'll ask the VA when we go through these action items, if you think it will be addressed in the presentation, just let me know and we can just keep going. OK, the CAP stated that people are being approved by the BVA after being denied by the VA. The CAP would like to know what the major causes of the reversals are starting at 2010 and going forward.

MS. CARSON: So I need clarification. What approvals and denials are you talking about? Are you talking about benefits or are you talking about the family care program?

MR. TEMPLETON: Benefits. This is -- as -- if you go to the BVA's website, you can look up the decisions that are in there that were made, whether they were a grant or a remand or a denial. Either full or in part on those. And so when you go to look at those, of course many of those that went to BVA, about 25% of them were granted when they had been denied by VA in the past. It's a rather large number when you're looking at, you know, at those. So that was my curiosity there about how does this square with the way that VA is conducting their part of the process? They're denying people, and a quarter of them end up being successful in overturning their denials.

MS. CARSON: So, I want to get more data for you on that. This is Lorraine Carson speaking again. But I will tell you that we've seen also that prior to the March 14th passing of the law, that

we had sort of a pretty consistent denial rate in grant rate in our records. But we have a significant increase since that because we have established the presumptive conditions, which then allow cases that were at the Board of Veterans appeals pending, to be pulled and granted. Let me get some numbers on that. And that's something that I'll take back to make sure that I get you more numbers on it.

MR. TEMPLETON: OK.

MS. CARSON: I'll give them to Jamie ahead at the next meeting so that you have it in writing. And then when we come back we can have further discussions about it. I understand exactly what you're saying, but what I need to do is do a level of review to see what did those numbers show prior to the law being passed, that established our presumptive split benefit purposes. And then what did it show after. I'm going to venture to say it shows a significant increase in the grant rate by the sheer volume of cases we have pending in our system previously denied for those presumptive conditions can now be granted. But let me go look that up for you.

MS. FRESHWATER: And that's just an example. If you need a clarification in between meetings, I don't I, you know, I think that there should be back and forth so that you have an opportunity to bring the numbers and this kind of thing.

MS. CARSON: Right. But I also want to be clear that when you ask me for something from the Board of Veterans appeals, I have to go to the Board of Veterans appeals, which is not the BVA. And so I'm willing to do that. Last meeting, I will say that for a lot of these different answers, it was they were sort of -- they were -- VA did not had a huge presence at the meeting, but so some of these things we know we owe you.

MR. TEMPLETON: And thank you very much. Appreciate that. And I guess the other part that I'd have to say for those keep me honest too. I was using a, you know, generally about 25% of grants to about 25% were denials, and then about 50% of them were remanded. So there were -- that means about 75% of them -- those some additional work that needed to be done that the judge decided to tell VA to do so.

MS. CARSON: Well what happens generally, especially when there's a new law enacted, I can tell you, we're going through this right now, as we even work Blue Water Navy claims. There are claims that are in the pipeline that were previously denied and when they are in that state of denial, BVA the Board of Veterans Appeals, generally has them on a docket in some of those. They may need additional evidence in order to do the grant. A lot of the cases that are sitting there for years, once a presumption is established, will have to go back -- be remanded back to the Veterans Benefits so that we can do a new exam for a current disability. So I don't want to misspeak, I want to make sure that I get you some real factual information that we can then discuss at the next meeting.

CDR MUTTER: Jerry.

MR. ENSMINGER: I would like to know when ATSDR and the VA are going to follow the law that was signed into law in 2012. And get back together and do a review of the current science supposed to be done every three years. And go through these health effects and add or subtract. Because you're supposed to do this every three years reviewing with the latest science. And I know that there's some science out there that's going to add possibly more health effects to this presumptive list.

DR. HASTINGS: Happy to meet with ATSDR at any time.

CDR MUTTER: Lori

MS. FRESHWATER: Do you have it broken down for male and female breast cancer, or I just see the one category. Is there a --

MS. CARSON: So I see that you're looking at the slides for the family care services. So family care, do you have it broken down by male and female?

CDR MUTTER: Can we wait and ask that question when we go through the slide?

MS. FRESHWATER: I'm sorry.

CDR MUTTER: Thank you. All right, so we only have a few more guys and then we'll move on to their presentation. So the next one is a VA started -- stated they would send the website links, press release, etc., to the CAP on where to find information on the contracts for the examination vendors.

MS. CARSON: Hi so this is Laurine Carson one more time. That -- just for by way of background and for the purpose of making sure everyone understands that VA has used via contract examiners in our program since about 2010. We -- sorry since 1998. And we started out with a pilot where we had ten of our regional offices that were using kind -- were also piloting and using contract vendors to help do examinations. When there was an excess or overflow of exams that were pending at the Veterans Health Administration. VHA also had its health examination contract vendors as well. We've aligned our territories in our regional offices with four regions. And we have several vendors. What I've done today is one of -- two things, first, you've asked quite a few questions about where on the websites can you read the contracts for examiners. And I have not been able to find that that information is in the public record. What does

happen is that it is posted to the Federal Register, what we look for in the contract, and then the contracts are bided on publicly. And then vendors are selected. And when those vendors are selected, we do a press release and an announcement. Last time I told the committee, I provide a copy of that website. And I told you that it's on www.va.gov. Under our press releases. It would have the press release for that -- for current -- for the awarding of the contract. And also on the telephone, I brought -- one of our supervisors, the chief over the medical disability examination program, and he deals directly with the contractors. because I know that there were several questions about that process. And so Randy, I wanted you to just I'm Randy Deddy is on the telephone, and I wanted him to just share with you some information about the contract and about information, about these particular vendors that are chosen.

MR. DEDDY: Thank you Lorraine. So currently there are four vendors serving the contract. There is VES, they are based out of Houston, Texas. Their website is VESServices.com. There is QTC, they are based out of California. Their website is QTCM.com. Then there is VetFed, VetFed is based in Rockville and Alexandria, Rockville, Maryland and Alexandria, Virginia. Their website is VetFed.com.

MS. FRESHWATER: Can you spell that? I'm sorry it's hard to understand you.

MS. CARSON: Its Vet, V-E-T-F-E-D.

MS. FRESHWATER: Thank you.

MS. CARSON: Dot com.

MR. DEDDY: And then the last vendor is LHI. And their website is LogisticsHealth.com. They are based out of Wisconsin. As for how

they all serve in the population. QTC and BES are awarded all four regions, so they are operating nationwide. LHI serves regions one through three, which is pretty much the East Coast, the Midwest, and the Continental region. And then VetFed only operates in the West Coast and immediately inside. So Wyoming, Montana, that strip right there. Each contract -- I'm sorry, the timeliness is based on a 20 day cycle. So they are required to conduct the examination within and return it back to VA within 20 days of their receipt of their request from VA. They are -- all have what they call A1 contact. So that's going to be, the minute that they receive the request, their staff is going to reach out to try to schedule an appointment. If they don't make a successful phone contact, what they will do is they will go ahead and schedule an appointment, send a letter informing them -- the veteran of that appointment, date, location, etc., and how to contact them. And then they will follow that up again with another phone call, usually within five days ahead of the appointment. Are there any questions that you would like to addressed specifically?

CDR MUTTER: Tim?

MR. TEMPLETON: Yes, this is Tim Templeton. I'm a CAP member. I also happen to be enrolled in the VA health care. So I take advantage of that and I appreciate it. Have you been to VESServices.com, to their website? Have you had a chance to take a look at what's the -- what kind of contents on that site by chance?

MR. DEDDY: Not recently. I have enough it up on my other phone right now.

MR. TEMPLETON: Unless they have --

MR. DEDDY: That's a proprietary site.

MR. TEMPLETON: Unless they have made some changes to their website, I'd encourage everyone to go take a look at what's on that website, and what they're talking about with what they do for those examinations. There's a few eye openers in there -- that are in there, let me put it to you that way. The other issue that I have here is that we're kind of -- again, we're supposedly had contracted since 1998. Well, you know, this issue really hadn't come to the fore quite at that time. But the fact that there are people who are doing examinations, and I know that sometimes you have to do this, but in many times those CMP examinations are occurring in absentia, basically. There -- the person who is the subject of the examination never gets seen. The only thing they're doing is reviewing the medical records that they happen to have in front of them as complete or incomplete as they may be. That's what they're looking at. And so in fact, that happened to me as well, just by chance. But I know that there's plenty of other people in this room that that happened to them as well. Instead of getting the CMP examination where they could actually, you know, talk to the examiner, get kind of explain a little bit of background of it, there's just this wall that's in between them that is put there. And then whatever decision comes out from them is -- only considers half of the true story, let me put it that way.

MS. CARSON: OK, thank you for that. This is Lorraine Carson again. And I will say two things. Just to clarify. In 1998, we did start contract exams, but as part of the Camp Lejeune process, we did not put Camp Lejeune claims in through the VA contracts at all. They were with the BHA examiner's until March 14, 2017 when a new law enacted and we had new presumptive. They -- those contractors, the VA contractors go through the same

training that the BHA contractors go through and we went down this road ad nauseam, and these meetings, discussing the fact of whether or not that training is considered sufficient, whether or not those examiners actually are certified. We do use -- we do use specialists to do certain types of exams. And we do -- have credentialed examiners and they are required to provide you with their credentials. And we have had some folks, even from one of these meetings, tell us that -- to challenge some of the credentials of an examiner which our contract staff has immediately taken off the exam. But what I wanted to say is that today we had hoped to give you a presentation on examinations. I do think that there has been enough ask from this group for a presentation of sorts. So I would recommend for the next CAP meeting that we do a full presentation on contract examinations. And have our BVA folks come into the room and present so that you can answer -- ask them direct questions.

CDR MUTTER: Thank you. So let's move on. We have a few more from the VA. The VA will provide the CAP with a bibliography related to kidney toxicity and end stage kidney disease. I believe that's on the tables in front of you.

MR. HASTINGS: It should be on the tables and going to back to what Jerry Ensminger said, and hi, this is Pat Hastings, VA Post Deployment Health Service. And going back to what Jerry had said, I think it is time that we looked at the literature again. We look at the different conditions. And so Dr. Breysse, seriously at your disposal, you know, we can set up some meetings to look at those. I'm surprised at the relative lack of some of the science. But I think we need to pull it all together and look at it. So you do have the bibliography requested in regards to renal conditions. And I think that should be one that's very high on our list of things to look at when we meet.

CDR MUTTER: Thank you. So that -- did you have another? Go ahead. Can you put your mic on?

UNIDENTIFIED SPEAKER: Is what you're getting ready to talk about having to do with this as well? With the bibliography piece.

CDR MUTTER: No, no.

MR. TEMPLETON: OK. So there. Yeah. I think this bibliography, this is what I'm looking at. Is that right? This is what was provided.

CDR MUTTER: There's one other page.

MR. TEMPLETON: Yeah and there's a second page.

CDR MUTTER: Yes.

MR. TEMPLETON: And I see that one too. Well one comment, a few comments actually. One the criteria, I'd really love to understand a little bit more about who defined the criteria for this in the first place. There's some parts of it that seem, you know, somewhat straightforward, but there's some others that don't quite seem so straight forward. The other piece that it happened to mention for kidney effects, that no consensus, OK. But it says that the EPA has assigned causality. OK. So --

DR. HASTINGS: And I agree that we need to sit down and go over this completely.

MR. TEMPLETON: Oh yeah.

DR. HASTINGS: With regards to the bibliography, most of this was taken from, as you can see, EPA, WHO, and ATSDR. In fact, the largest component there is looking at --

MR. TEMPLETON: I got a question for you now.

DR. HASTINGS: The ATSDR there.

MR. TEMPLETON: I have a question about that one, about that piece in there. It happens to say at the bottom with an asterisk comment on review. And so are -- am I reading this right or understanding it right. Is that the -- is that basically the entire piece that starts revised -- toxicological profile for TCE, ATSDR 2019? Is that to say that all of the contents that are within that bullet point are a comment?

DR. HASTINGS: What I was trying to do was just distill into one sentence, the essence of what ATSDR was saying, for those that might not have a scientific background. And it just says that there are limitations in this, because of the fact that the confidence interval of the hazards ratio crosses one, and it's relatively wide, that we really can't make any full determination from that. And so, again, this is one of those things where I think it's time that ATSDR and VA post deployment health look at this in depth.

MR. TEMPLETON: Yeah, I just didn't, honestly didn't feel like it was appropriate if there -- if it's actually a comment to -- on a review. Yeah, the comment never actually may or may not have made it into the final version. So as far as whether that is germane there I'm not quite sure of that, because you'd have to see it in context with what it was. So you know, that's where I'm not quite sure that comment --

DR. HASTINGS: It -- the whole comment --

MR. TEMPLETON: The comments don't really --

DR. HASTINGS: Is the -- it talks about the hazards ratio. And so the sentence I put in there was my sentence to explain that there are some limitations with this. And in fact, if you look

at the second page, that's there, these are the only studies that are found to report on specific outcomes. Most studies show detection of proteins in the urine and evidence of tubular damage. It's unclear if the kidney toxicity resulting from TCE/PCE exposure has a high concurrence progressing to end stage renal disease. And that was the question that we were looking to answer. It's surprising that there is a lack of literature on this.

MR. TEMPLETON: Well, you know, I would take issue with that as well, that assessment. And because actually, today you're going to get a chance to enjoy a couple of prominent folks in this field that are going to set the record straight on some of those things and also talk about some of the new studies that are absent from this. And so there are studies that are out there, and they'll be happy to fill us in on that. But in general, this whole thing, I'll just go ahead and summarize what I think about what my opinion is about this. Is that it appears that again, that studies have been knit picked into finding small issues with those. And what I see is if, for example, if you have a bunch of nails on the floor, you can identify one of those nails and say, yeah I probably shouldn't step on that. But you know what chances are, I'm probably not going to step on that. But the thing is, once you see a whole bunch of nails on the floor, that should probably tell you don't walk on that floor. You're probably going to come in contact with a nail.

CDR MUTTER: Thank you Tim, I want to give you --

MR. TEMPLETON: Yeah I know, I --

CDR MUTTER: I see Craig's tent and I don't know if Frank had something to say.

MR. TEMPLETON: I felt like that this was important though.

CDR MUTTER: Thank you.

MR. TEMPLETON: This is very important.

CDR MUTTER: Thank you. Craig.

MR. UNTERBERG: Just thought back on the action item. I thought we had a discussion last time. The VA was raising causation issues for renal toxicity. And that's one of the presumed conditions. So I think it was more of a legal question as to why --

CDR MUTTER: I think that's coming up.

MR. UNTERBERG: That's coming up next. OK.

CDR MUTTER: Yeah. We have two more action items and that's one of them. Thank you. Frank, did you have anything you wanted to?

DR. BOVE: Yeah I just want to say that, although it mentions the tox profile, we have another report that assessed the evidence for causation for kidney disease and 15 other diseases. And if you look at that report, there are several studies that aren't listed on this.

[Inaudible Comment]

CDR MUTTER: Can you speak into the microphone.

DR. BOVE: No its --

DR. HASTINGS: Is that the one that's been unpublished on your website?

DR. BOVE: Its published on our website.

DR. HASTINGS: But not published in the peer reviewed literature. I'm sorry.

DR. BOVE: It was peer reviewed.

DR. HASTINGS: OK.

DR. BOVE: And it was the basis -- it was the basis --

DR. HASTINGS: Then I don't know which one you're referring to, so I'd be happy to look at it.

DR. BOVE: Right because it, again, there's several studies that are missing here. The tox -- I mean, the tox profile, the purpose of the tox profile really is to come up with an MRL. And the purpose of the assessment of the evidence was actually to assist the VA in its deliberations on what diseases to include on the presumption list. And so it has a different purpose. The tox profiles not trying to determine the evidence for causality. The assessment of the evidence was trying to do that. And that's what the purpose of that document is. We were asked to assess the evidence by the VA, to help them in their deliberations. We've had this discussion before on kidney disease, there's differences of opinion. But it would be good to have all the studies that looked at kidney disease, because this is not a complete list. Also even though I mean it mentions the biomarker studies, those are important studies. They show an effect that bolsters the other EPI findings. So you need to be careful about that. Tox profile, again, wasn't trying to determine the -- how strong the evidence was for causation. Again, their purpose mostly is to come up with an MRL. They look at all the studies, that's true. But really the focus of those documents is a little different from our assessment. So anyway, the assessment was peer reviewed. It's not published in a journal because no -- I

don't think any journal would publish the entire thing. It's enormous, but we should use that.

CDR MUTTER: Thanks, Frank. OK, so before we continue with the action items I want to let everyone know the live feed, meaning the live feed is working, it started working at 6:00. So if people are asking you, please have them go back to the website and they'll be able to see the live feed. So we have two more for the VA. So the next one, the VA will consult with their Office of General Counsel to ensure that the VA is interpreting the Camp Lejeune Families Act appropriately, specifically regarding renal toxicity, renal disease and neurobehavioral effects. In addition the VA will able to look at whether they are requiring a Nexus for the Family Act, and also how they are interpreting the conditions, i.e., acute exposure.

DR. HASTINGS: And I have worked with the Office of General Counsel, they are reviewing this review of the clinical guidelines right now. And I hope that the next CAP meeting that we can present that information.

CDR MUTTER: Thank you. And last one, the CAP requested information on infertility be included in the presentation from the VA and so we'll just hold that one and go through the presentation and if we have questions we can ask at that time. So with that, we are going to start the VA presentation. Do we have the VA on the phone that will be giving that presentation?

U.S. DEPARTMENT OF VETERANS AFFAIRS UPDATES

MR. JONES: Yes, ma'am. Kip Jones here, ready when you are.

CDR MUTTER: I am ready. Just tell me next and I'll advance your slide.

MR. JONES: OK, I just wanted to skip through the first couple slides, you know the overview, because you guys all know about the program. And then slide number three is the veteran eligibility, you obviously know that. So I wanted to start on slide number four, because I heard some questions on some of the veteran data. And even though we represent the family members, we do have a little bit of that veteran data. So if you go to slide number four, I wanted to call out, you know, the third and fourth bullets. You know, as of June 30, 2019, the VA has enrolled 63,702 Camp Lejeune veterans, 3,449 of which were treated specifically for one or more of the 15 specified Camp Lejeune related medical conditions. And then we just refer, you know, any of the veterans interested in enrolling to call the hotline, the 1-800 or 1-877-222-8387. And they would be more than happy to take care of our veterans. If you can go to slide five then. And I'm sorry, I'm working blind, so I don't have the live link to see you. But on slide five we have a table below displays the number of veterans who were treated for each of the 15 conditions between October 1, 2012 and June 30, 2019. And if you do notice to the right of the numbers in parentheses, that shows this increase from the last quarter. And next slide, please. Now for the Camp Lejeune Family Member Program. We were launched October 24, 2014. The day the regulation became effective. Family members received care by civilian providers and the VA reimburses as a payer of last resort, any out of pocket medical costs associated with the 15 conditions. Family members may request reimbursement for covered expenses incurred up to two years, prior to the date of the application. As of August 31, 2019, the VA provided reimbursement to 481 family members for claims related to the treatment of one or more of the 15 specified Camp Lejeune related medical conditions. And then the, if any Camp Lejeune family members are interested in

enrolling in the program, they can call 1-866-372-1144 or visit the Camp Lejeune family member website. And next slide, please. For the Camp Lejeune family member eligibility to receive reimbursement of medical expenses under provisions of the law, the Camp Lejeune family member must be determined administratively eligible for the program. And the administrative eligibility, you must have had a dependent relationship to an eligible veteran through the covered timeframe. And then you must have resided, including in utero, on Camp Lejeune for at least 30 days between August 1, 1953 December 31, 1987. And you have to have one or more of the 15 qualifying health conditions. Next slide please. The below table displays the number of family members who are eligible for each other 15 Camp Lejeune medical conditions between October 1, 2012 and August 31, 2019. And again if you notice the column to the right in red in parentheses, indicates the increase over the last quarter. Next slide please. So we have some data for eligibility for the veterans of the 63,702 veterans who applied for care and services under the Camp Lejeune program between October 1, 2012 and August 31, 2019, 1,510 were ineligible due to not meeting the statutory requirements for the veteran status. There were 507 veteran applications in a pending status. For the family member program, of the 3,142 applications received for eligibility in the Camp Lejeune family member program between October 24, 2014 and August 31, 2019, 2,211 are administratively eligible, and there are 31 awaiting an administrative determination. Family member administratively ineligible is 931. The top three reasons for ineligibility is not meeting the Camp Lejeune residency criteria, or the relationship to the eligible veteran or the veterans eligibility criteria is not met. Family members clinically ineligible is 385. And next slide, please.

CDR MUTTER: We have a question from the CAP I think on the previous slide, Chris.

MR. ORRIS: Yeah Hi, this is Chris Orris, CAP member. There are several questions that I have for you. I want to circle back to the Camp Lejeune family member eligibility slide and discuss in your determined administratively eligible for the program requirements. I keep seeing this word eligible veteran popping up. And this is something that we have discussed in previous CAP meetings. And I want to make sure that we are not revisiting this. And that you are not denying family members benefits based on a veteran's discharge status. And can -- so if you can please address that for me. And I have another question after that as well.

MS. WILLIAMS: Yes I can answer that. This is Donna Williams. We are not denying any family member based on the veterans discharge status. Because in this case we are dealing with the family member and not the veteran. So the discharge data is not at play.

MR. ORRIS: Thank you. I just wanted to make sure --

MS. FRESHWATER: What is the veteran criteria -- the eligible -- what is it, if it's not the --

MR. ORRIS: That's -- so if you are dishonorably discharged, you're not eligible for VA benefits.

MS. FRESHWATER: Right but I'm saying if it's not the discharge, what is it that's making the veterans not eligible? What is the other reason besides discharge?

MR. JONES: You can -- if you want to skip -- or go back to slide number three, that addresses that veteran eligibility.

MR. ORRIS: OK.

MS. FRESHWATER: So, but if -- so what if a -- so you're saying that like if a child meets the qualifications, if a child was on the base, and it meets all the qualifications, if the veteran say was there 29 days and the child was there 30 days, then the child doesn't get the benefit?

MS. WILLIAMS: The veteran has to be there for 30 consecutive days yes. That's the law.

MR. ORRIS: OK And that circles then to my next question that I wanted to get into. In utero exposure, the damage can happen within minutes of an exposure and it does not have to be a continuous exposure. And so I do want to address this. This is something that I brought up before and I have not received a satisfactory answer to. A woman bearing a child in utero can be exposed on the base and that child can be harmed by that exposure, without them being there for 30 days. And the way I'm reading this is you're saying that if a child was in utero and was given a birth defect due to that exposure, they would not be eligible. Can you clarify that for me?

MS. WILLIAMS: Pat can you answer the clinical question for him please?

CDR MUTTER: Pat?

DR. HASTINGS: I'm not sure exactly what the question is. You're saying that because the veteran was not on the base for 30 days, you're concerned that the family member, this, in this case, being a child in utero does not have benefits?

MR. ORRIS: Correct because an exposure in utero can be an instant exposure at a very specific time during the development of that fetus. And a birth defect can be caused by a onetime

exposure. I don't think there's a scientist out there that would disagree with that. So why are we requiring a 30 day residency for a child in utero exposure? And if so, I want to know how many times a child has been denied for that, and a justification for that.

DR. HASTINGS: We can find out how many have been denied. I don't think there would be that many, but we will certainly find out. This is one of those cases where it is the way the law reads. And so, as Jerry Ensminger said, you know, some of these things have to be handled via the law.

MR. ORRIS: Well the VA is given broad latitude in what they can interpret with the law with this. And I certainly think that if a situation like this were to come up, and I'm not saying there are, I'm just covering the basis with this, but that we should certainly do everything we can to provide care for that child who was harmed due to that exposure.

DR. HASTINGS: I do not disagree with you and I will find out what the numbers are for you.

MS. FRESHWATER: Can we get a breakdown on the administrative denials for each reason, how many were denied?

DR. HASTINGS: Actually the experts are on the phone right now. I'm sure they're taking notes, and I'll talk with them on Monday. And we'll get that out.

MS. FRESHWATER: Yeah, I would like to know. Because this to me, just my fear is that people are getting caught in a bureaucratic kind of technicality when they need help. So I would like to know how many people are being denied for the eligible veteran versus not being on approved prove residency. Because it's hard to find those records sometimes. And --

DR. HASTINGS: Certainly.

MS. FRESHWATER: And our job should be on the CAP to help people do that. So --

CDR MUTTER: Thank you.

MR. ORRIS: And then this is Chris Orris. And I have one final question. I promise I'll be done after this. And I had mentioned this earlier during the action items. And here I see that you have family members, clinically ineligible 385, but then you put an asterisk in for one of the 15 conditions. Well my question is, how many family members are clinically ineligible because the law is written in such a way that it's not covering a condition that has causation, whether it be sufficient or otherwise. And I keep asking for these numbers and I don't see them.

DR. HASTINGS: Chris in that case, I don't think we're going to be able to specify. We can look at the reasons that they were turned in. In many cases it is clearly not something that has causation. It may be, you know, something that is headaches that began 40 years afterwards and it's turned in. But I can get you the criteria. I can get you the types of things that are turned down. So we'll go ahead and get those for you.

MR. ORRIS: Thank you. I appreciate that.

CDR MUTTER: Craig.

MR. UNTERBERG: OK so going back to the renal toxicity. On the last -- in the last CAP meeting, representatives from the VA said that they were denying people who were applying for renal toxicity care because there is no causation.

DR. HASTINGS: In end stage renal disease, if they have another reason for it to have occurred, and it's for -- they've been well, and then 40 years later they have diabetes, hypertension, and clearly other reasons for end stage renal disease, it is attributable to the diabetes and the hypertension, not the exposure that they may have had.

MR. UNTERBERG: That's where I get confused. I mean isn't the law that it should, there's a presumption that it is from Camp Lejeune. So if someone gets kidney cancer or some other disease 30 years later and there were other factors, it does not matter. I just don't understand why renal toxicity is being treated differently than all the other presumed diseases that are on the list. And that's going back to the law. The law is pretty clear on this.

DR. HASTINGS: This is how it's looked at. Renal toxicity, the committee notes however, there are several reasons why there may be a lack of evidence of acute renal toxicity at the time of exposure. Renal toxicity did not occur. It did occur but the patient was asymptomatic. And therefore there was no indication that there was necessary laboratory tests that should be conducted. Or the tests were conducted but were not sensitive enough to detect mild disease. So that's exactly what you're saying. Thus the committee finds that a patient should not be ineligible for the VA because of a lack of documented evidence of kidney disease during or shortly after residence at Camp Lejeune, during our shortly after. If there is no history of acute renal injury around the time of residence at Camp Lejeune, the guidance asks clinicians to consider whether the patient has diabetes mellitus, hypertension, which are common causes of chronic kidney disease or other conditions associated with chronic kidney disease, such as diabetic neuropathy, obstructive

neuropathy, hypertensive Nephrosclerosis, sickle cell, or other HIV associated nephropathy drug induced kidney disease. So many of the cases with regards to renal toxicity have another causation.

MR. UNTERBERG: Right but couldn't that be the case with breast cancer or kidney cancer, but the law says that there's a presumption that those have been caused by Camp Lejeune. So I don't -- I don't know why renal toxicity is being treated differently and they're requiring a causation when that law -- that whole point of the law is that you don't have to create the causation anymore.

DR. HASTINGS: If there is renal toxicity and there is damage, it is an acute situation as we've discussed before.

MS. FRESHWATER: We all --

DR. HASTINGS: It may not --

MS. FRESHWATER: You can't --

DR. HASTINGS: It may not show up. I agree with you, it may not show up but if there --

MS. FRESHWATER: Of course it's not going to show up --

DR. HASTINGS: If there are --

MS. FRESHWATER: Show acute kidney disease shows up when they drink contaminated water. I mean --

DR. HASTINGS: If there are other compelling reasons, other causation, the diabetes, the hypertension, HIV drugs, it may not be approved.

MR. UNTERBERG: Yeah, I'm still not understanding how -- why causation is coming into play.

MS. FRESHWATER: It shouldn't be.

MR. UNTERBERG: When the law is based on presumption.

CDR MUTTER: Tim, do you have a comment?

MR. TEMPLETON: This -- oops, this kind of goes along with what Craig is saying here and to get right straight to the point on it. The word that's in the law, the term that is used in that law is not withstanding. That's the term that's being used. Notwithstanding other issues concerning causality or any of that. It says, notwithstanding that, that these benefits will be provided. So I don't understand why yourself or OGC can't speak to that. To say why they're not following the law, why they're not abiding by that term, notwithstanding. Well when you started talking about going into all the other reasons diabetes and all that other stuff, that pretty much goes beyond the notwithstanding part in that law, it goes beyond that. And that's not required.

DR. HASTINGS: And at the request of the CAP I do have OGC looking at that.

MR. UNTERBERG: I appreciate that. I would love to hear what they have to say I asked personally one time, I never got a response.

UNIDENTIFIED SPEAKER: They make up anything [inaudible] for the drugs and the good one. We are looking for drugs and this doctor that never heard of Camp.

DR. HASTINGS: Pardon?

CDR MUTTER: Can you repeat your comment and can you say your name before?

MR. PARTAIN: Cross feed.

CDR MUTTER: OK.

MR. PARTAIN: Dr. Canter and Dr. Bove, what I'm hearing from the VA with the kidney disease I'm confused by that. What I think I'm hearing and I don't want to put words in Dr. Hastings mouth, is that with the kidney toxicity conditions and everything you know, mine is an acute diagnosis at the time of exposure, that diabetes, diabetic neuropathy and some other, I forgot the other, high blood pressure other causations are more likely to be the cause of kidney disease, than an exposure to Camp Lejeune to trichloroethylene, which is like we've said time and time again, a known human carcinogen for kidney cancer. Is there a different pathway involved here or is it this jumbled up? Or science can't understand that? I'm not a medical professional. So I hope I'm making sense.

DR. BOVE: Well again we did this assessment of the evidence and we talk about the tox information as well. OK. And the metabolites, the TCE metabolites and it's possibly the PCE metabolites as well have been found to be renal -- cause renal toxicity. OK, so that's what the animal data looks like. The human data, end stage renal disease has been found in a few studies and other mortality, due to kidney disease as well. So we laid out all the information in that document. We didn't include all the studies because if there was a recent study that recapped previous studies, we used that study. But it's in the assessment. So yeah, the metabolites of TCE can cause renal toxicity. Yeah.

CDR MUTTER: Ken.

DR. CANTOR: Just one further comment. In my presentation I'll mention a study where we do see evidence at fairly low levels of airborne TCE of kidney damage. That's not to say that there

could be correction of that damage in the future. But at the time of the study, certainly the damage was there from TCE. So this is just another point. I don't know if you use this in your assessment, you -- perhaps you did.

DR. BOVE: Yeah.

DR. CANTOR: You did.

DR. BOVE: Two biomarkers.

DR. CANTOR: Yeah exactly. So there is evidence of damage from TCE. And that could eventually contribute to much later effects in conjunction with other causes.

MR. PARTAIN: And once again, a follow up question for you guys and as a whole. Is it possible for science to distinguish between causation caused by diabetes, high blood pressure, kidney disease, and exposure to TCE and PCE? Is this, I mean, that seems to be the threshold that the VA is setting. And I don't know the answer to that. So I throw that out there.

DR. BOVE: Probably not. There is a study that is in the list that was provided, I think. Maybe not. But they looked at both systemic end stage renal disease and hypertensive end stage renal disease. Both outcomes, the odds ratio or hazard ratio or whatever, I can't remember what our SIR were elevated, because of smaller numbers, the confidence interval included one. I never used that as a way of saying there's no association. The association really is the hazard ratio itself. Not the confidence interval, not the P value. But both were elevated, although the hypertensive end stage renal disease was much higher than the systemic end stage renal disease finding. Why is that? We don't know. Again this is one study that tried to, I don't know if they were trying to distinguish this or not. But

to answer -- I guess to answer your question, no, there is no easy way to distinguish what causes renal failure.

CDR MUTTER: Thank you, Lori. Did you --

MS. FRESHWATER: Did we have a number of claims filed for renal toxicity?

DR. HASTINGS: That's what I'd like to offer. I'll get the numbers. They don't stand out in my mind. So I don't think they're that high. But also, I think this points to the fact that it is time for us to relook at some of these things with ATSDR and very well, we will do that.

MS. FRESHWATER: But this is -- but what I think our argument is about the law isn't being followed, not the science. So what I'm trying to figure out is what can we do? What -- who do we need to consult with to --

DR. HASTINGS: I have OGC looking at it now and I will report back to you.

MR. UNTERBERG: I mean we did raise this issue at the last --

MS. FRESHWATER: How long have they been looking at it?

MR. UNTERBERG: We did raise this issue at the CAP meeting. The exact issues. So it's been a while, and I would say, you know, we have heard in the past, if someone lives on the base only for, you know, for one day less than what's required, you guys are bound by law, not to pay disability. So we're just seeing you guys. It seems as if you're picking the law and using law when it's in your favor to deny, but now not necessarily following the law when it's requiring disability payments.

MS. FRESHWATER: So how long they've been looking at it? You said you have them looking at it.

DR. HASTINGS: Let's see probably. When did I start with them? April? May?

MS. FRESHWATER: Have you heard any, has there been any --

DR. HASTINGS: I spoke with them on Thursday.

MS. FRESHWATER: Was that the first time you talked to them since --

DR. HASTINGS: Oh no. I've spoken to them many times.

MS. FRESHWATER: And you -- but there's no --

DR. HASTINGS: They're still reviewing. No and I don't have anything back, I hope for the next CAP meeting I will.

CDR MUTTER: OK. Thank you. And just to move --we have a few more slides on the presentation. If we could just go to slide nine.

MR. JONES: Yeah Kip again. I'm ready to move to next slide ten please.

CDR MUTTER: OK I have you on nine, slide nine.

MR. JONES: Is that entitled eligibility?

CDR MUTTER: Yes.

MR. JONES: Yeah, I thought I read this one.

CDR MUTTER: OK. Did you --

MS. FRESHWATER: Yeah we did that one already.

CDR MUTTER: OK, then we're going to slide 10.

MR. JONES: OK, this slide is for the top five reasons a family member, out of pocket medical expenses were not reimbursed. The medical bill was completely paid by other health insurance. The bill was previously submitted and considered. The diagnosis

codes on the medical bill is not covered for the approved condition. The bill was sent for clinical review and determined that the medical procedures were not related to the approved condition. The family member or provider did not submit the primary insurance, which we call other health insurance, explanation of benefits. The prescription not covered by approved drug formulary listing. And that was after nurse review, the medication was determined not to be related to approved condition. Next slide please. Now I'm not sure if we covered all these when we were going over the action items, so I'll go through them real quick. The CAP requested the VA to confirm how many individuals have successively appealed to the BVA and gotten residency approved by the appeal process. We have two cases that have been successively appealed out of the two that have been submitted. Once the administrative eligibility is granted, the family member will still have to go through the clinical eligibility process. And then the CAP asked if a spouse of a veteran passes away from kidney cancer, and they are awarded, this says VIC that's a typo it should be DIC, Death Indemnity Compensation. Are they being counted in the tables that are being presented? The tables reflect eligible family members. If the spouse of the veteran passes away from kidney cancer, and they were an eligible family member, it would be counted. And next slide please. The CAP requested that in future CAP meetings information for total people who have been approved include people who are being treated and also people who have been approved but are not currently being treated. So our slide shows the total number of family members that are both administrative and clinically approved. And we do show how many are being treated. So the numbers I noted we had 481 Camp Lejeune family members being treated for one or more of the condition, and we have 688 clinically eligible family members So

that's a difference of 207 family members that we don't have any claims for yet. And that is next. Thank you very much.

CDR MUTTER: Thank you. Are there any question?

MS. FRESHWATER: Can we go back to my question about male breast cancer?

CDR MUTTER: Sure.

MS. FRESHWATER: Can I get a breakdown of that, in the -- within the breast cancer numbers?

DR. HASTINGS: Donna would you be able to pull those numbers on separating males and females with breast cancer?

MS. WILLIAMS: I will get back with you on that? OK. I will have to -- I can't -- I cannot answer that question at this time.

DR. HASTINGS: OK, thank you for, if you could get that to me next week then.

MS. WILLIAMS: All right.

CDR MUTTER: Thank you. I saw Mike Partain first.

MR. PARTAIN: This is something that's kind of, it was brought up before in the past and we tried to do a meeting but it's fizzled. So I'm going to bring it up again now. A registry with a VA for Camp Lejeune for the Marines and sailors. When are we going to have that discussion? Because it's been, we're going on what, eight months now.

CDR MUTTER: Sure. I'm ready to schedule it anytime. Would you like me to reschedule it, Pat? You can look at the schedules.

DR. HASTINGS: Yes.

CDR MUTTER: OK. I'll work on that next week.

MR. PARTAIN: OK. Because I know it just, keep in mind during the day, Jerry's retired so he can attend anytime he wants. But some of us still work. And I know like the last meeting with my job is extremely hard for me to do anything during the day now. And of course, when I'm off work, which is 4:30 p.m., you guys are going home. So --

CDR MUTTER: Right I'll work with your schedule, like I have before to get a date and it will probably be around lunchtime.

MR. PARTAIN: OK.

CDR MUTTER: OK.

MR. PARTAIN: But I do, I want to emphasize that there is a need for a registry for illnesses for the veterans. It is the most common question that I get on our website. To give you an idea, or Facebook website, which is Camp Lejeune toxic water survivors. We've got over 15,000 people on that website. And people think they're going in and calling to the United States Marine Corps and registering. And that someone's keeping track of what they're saying. That's not happening as we all know. It's an informational gathering point to send mailers out by the Marine Corps. People also communicate that they think that when they go to the VA, and apply for benefits, that they are registering their conditions, they think they're being counted. They are not. And we need to get a count because this is something that why we're asking questions here today. And also, more importantly, like Jerry mentioned that we have a statutory requirement to come back and revisit conditions. And I would throw out there that if we have a registry and their condition is showing up on that registry and using male breast cancer as an example, before I became involved in this issue, no one was looking at male breast cancer. And it turned out to be a

significant number of men with breast cancer. And if I didn't take the time to count and find and get people together, it would have been missed. That is a case in point for having registry. Also when you guys do your reassessments, like I say you can look at and say well, we've got 3,000 people with kidney toxicity, you know, we got 1,000 people with esophageal cancer and it -- these are showing up in unusual numbers. It prompts you to do the inquiries that need to be done. So --

MR. ENSMINGER: So that's what the R in ATSDR stands for is a registry but they don't make them anymore. So we will just call them ATSD.

[Laughter]

CDR MUTTER: Mike.

MR. ASHEY: Are we about to go on break?

CDR MUTTER: We are --

MR. ASHEY: OK.

CDR MUTTER: Going to take a --

MR. ASHEY: OK before we go on break, I want to withdraw my request to keep that action item concerning the sampling of the potable wells.

CDR MUTTER: OK.

MR. PARTAIN: So you can go ahead and withdraw, and we can delete it. Considering the magnitude of what's happened to Camp Lejeune one would think that the Department of Defense would want to take every precaution conceivable to ensure that this debacle does not happen again. And it's obvious they're not doing that. So --

MR. ENSMINGER: They're taking the precaution of making sure that it only happens to 1/17th of the numbers there.

MR. ASHEY: But I think that this issue can be distilled down to one page white paper. I've discussed this with Jerry and Mike in conceptual format, and we're going to look at drafting it and working on it and then submitting it to the Senate Armed Services Committee so that they understand our concern. And I believe that they'll share our concern and then this problem will get solved very quickly. So I think that that's the tact we'll take. Thank you.

CDR MUTTER: OK, I have 6:48, if we can be back at 7:00 and we're going to start promptly at 7:00.

MR. ENSMINGER: Twelve minutes?

[Background Chatter]

CDR MUTTER: OK, if can have people start returning to their seats we're going to start promptly in one minute. So if we can take our seats at the table and in the audience we have one minute.

[Background Chatter]

SOIL VAPOR INTRUSION PUBLIC HEALTH ASSESSMENT UPDATE

CDR MUTTER: OK, I have 7:00, if we can go ahead and get seated at the table. If we can take our seats. We're going to get started with our Public Health Assessment update and we'll start with soil vapor intrusion with Jack Hanley.

MR. HANLEY: Can we start?

CDR MUTTER: Yes, please go ahead.

MR. HANLEY: Good evening everyone. I'm going to provide this brief update on The Camp Lejeune public health assessment on potential exposures from vapor intrusion. This presentation includes highlights of our progress on the health assessment. Then a little brief about today's technical workshop with the CAP members. And then follow up action items from the CAP meeting today and other progress that we're making. As you can see with the highlights since the release of the vapor intrusion work plan last July, we've completed the computer analysis application system, and we are now doing the evaluation of the highest priority buildings that we've identified. We've also had a number of technical workshops to try to keep everyone up to date and today was another one we covered today, in detail quite a bit of the analysis. And as you can see here, this morning we provide a -- the CAP with the -- a demonstration of preliminary vapor intrusion evaluation. The purpose was to review the detailed methods and the line of evidence for the evaluation of individual buildings. And we showed them how we evaluate the groundwater to soil gas data and indoor air data. And we used the Tarawa Terrace Elementary School. And we demonstrated the layers of the computer application system, and all the filters and how we use this as a tool in doing our assessment. We provided the details of the evaluation but also showed some preliminary conclusions with regards to the vapor intrusion evaluation. And then the public health evaluation and our public health findings. They were all preliminary, but it showed just the general methodology and approach and the detail that goes in -- that will go into each of the evaluations of the high priority buildings. We received a number of suggestions from the CAP members that we're going to be following up on. Some of them had to do with formatting the maps to improve the presentation and communication of the information and the data. We had other

factors that could -- they -- factors they wanted us to look at them in more detail to provide more detail into the analysis, and that will be presented in the actual document. And these factors affect -- could affect some of the vapor intrusion analysis. And that included some well depths, locations, building information that they thought would be helpful. We're going to review some of the statistics and how we use non-detects. That was an issue that came up today. And data quality issues. So besides those follow up activities, we are moving forward on our exploratory data analysis of each building. And then on each of those buildings, just like we showed them today, we're going to go over the vapor intrusion assessment and document each in our health assessment, each of the findings with the public health implications. And then also another aspect of this project is to evaluate the vapor intrusion mitigation systems. And we will include that in there, in the health assessment. And that's it for my presentation on this update, and you have any questions?

MS. FRESHWATER: I just, it's not a question. I just want to say, as the person at the last CAP meeting who kind of, I think had a reaction to some of the stuff I saw about this school. I just want to reassure everyone and let them know I was at the meeting this morning and I want to, on behalf of everyone who has talked to me about this, say thank you. And we really appreciate that you took our feedback from the last CAP meeting and in my emotional reaction from the last CAP meeting and gave us this information today. It was very reassuring and very helpful. And I just want to say I think that this is in very good hands. And from the CAP we are, we're very appreciative of what you're doing.

MR. HANLEY: Thank you. And I'm sure the team will appreciate it.

CDR MUTTER: Chris.

MR. ORRIS: I just wanted to say thank you for all of your hard work. And ask one follow up question. Are you receiving all of the cooperation that you need with the Department of Navy, in all of your requests for information?

MR. HANLEY: Yes, at this -- as of this time? Yes.

MR. ORRIS: Good.

CDR MUTTER: Jerry, did you have -- I saw you pull the microphone closer. So I just wanted to, do you have any comment?

MR. ENSMINGER: No.

CDR MUTTER: OK.

MR. ENSMINGER: Not that --

CDR MUTTER: OK, so are there any other questions for Jack before we move on to the Cancer Incidence Study? All right, Frank, if you wouldn't mind giving an update on that.

CANCER INCIDENCE STUDY UPDATE

DR. BOVE: OK. So this is a very complex study. Each state has its own requirements. I think I've been -- I've said this before. And, but it looks like we'll be able to get all of the states. We're working hard with our contractor working with each state. There are two states that by state law can't give us data unless the patient provides consent, but they're willing to get consent from the patients that match. We're working with them, it looks good. So those are two states. Another state has not done any of this matching for many years because they don't have the staff. And they have a state law saying that only the staff

can do the matching. We're working with that state hoping to get that state too. If we can get that state as well, and there's one other state that's taking its time giving us approval, we'll have all 50 states, which is something we never thought we would be able to get and has never been done before. And so that's good. And we're getting data use agreements with every state. That's why this kind of a study is very complex. Hopefully someday, they'll be a streamline process, maybe even a national cancer registry. But in the meantime, you have to go to each state, get -- go through their IRB, then sign a data use agreement with each state. And so that's how complex this is. But we have a good contractor. The North American Association of Central Cancer Registries called NAACER, or NAACER, whatever, which is the organization of the state cancer registries is working with us closely and wants to see this study be successful. So and that's only by their help, I think are we able to get all 50 states. So that's good. So the situation right now is we're still working with the locator firm to get vital status on most of the cohort. Those who have died by 2008, we're not sending to the locator firm. So we're only sending those who are alive as of 2000 -- that were alive at the end of the mortality study. And we need to find out what their vital status is going from 2009, the beginning of 2009 to 2017. That's the period we're looking at. When we went to TransUnion, I think there were like 16,000 they couldn't find. We also want to go to Social Security, because TransUnion -- because a locator firm is good, but it'd be helpful to have Social Security information as well, on their vital status. And between the two, we should be able to capture the information for everyone. So that we're having some difficulty, but we think we'll get that ironed out starting next fiscal year, which is October, and hopefully have a match with Social Security data before the end of the year,

I'm hoping. What that means is there will be some delay in -- when I get data for the mortality portion of this study. What I'm trying to do, of course, is to update the mortality studies we've done. And the state at the same time we're looking at cancer incidence. OK. Let's see, so what else can I say about that? So anyway, we've made some changes as well. We're getting 2017 data now, before we were only going to get data up to 2016. But because we've had some delays now 2017 data is available. So we'll get it. Also we've increased the cohorts to include people who are there in 1986 and '87. So that's also a change in the contract with the contractor. And we're doing the match with Social Security. So that modification is being finalized or has been finalized at last week. And we'll go through so. So there's a lot of things going on. As I said, it's a complex study. But I think the take home message is we will probably get all 50 states plus the VA, plus the Defense Department's cancer registry, plus the registries in Puerto Rico and the Pac Islands and I think that's it. So any questions?

MR. ENSMINGER: Yeah, what's your estimated completion date for this?

DR. BOVE: Well --

MR. ENSMINGER: It's just you know --

DR. BOVE: Let me go through it then.

MR. ENSMINGER: Just pull something out of your butt Frank --

DR. BOVE: The exact among. I don't expect to get mortality data probably until the beginning of next year. So I would say two years beyond that. And then the cancer data will probably won't be finalized until the, near the end of next year. So add

another two years to that. So if you do the math, that makes it the end of 2022. Probably. To be honest.

MR. ENSMINGER: Well, you know, you brought something up about cancer registries and about a national cancer registry. And I think this is a good teaching point for the audience here that, you know, most people don't realize that we don't have a workable national cancer registry. Now I can about guarantee you that there's not a person sitting in this room that hasn't been touched some way by cancer, either a relative or close friend or whatnot. I know I have, Mike has, Lori has, but everybody in this room has been touched. And whenever we hear people say that they're -- they want to defeat cancer within our lifetime. But yet, you've got 50 plus different cancer registries that are subjected to 50 plus state and territorial laws that put restrictions on gathering data, researchers don't have the funds to do meaningful studies on cancer. When they can't -- they can't afford it. We need a national cancer registry where all of these figures and data are submitted by every state and territory to that central cancer registry. It'd be a one stop shop for researchers. If we're really going to defeat cancer, that is one of the -- that's the major tool that they need. And we don't have it. And all of us can make a difference. We start raising enough hell with Congress.

CDR MUTTER: Thank you. Lori.

MS. FRESHWATER: Can you just kind of very briefly for people who are just tuning into our work, communicate why it's important to have an incidence, not just mortality, because of treatments and you know --

DR. BOVE: Well with some of the problems of the mortality study that was done, first of all the cohort was young. And so they

didn't die yet of the diseases. So they're not counted until they die. So that's a problem right off the bat. The mortality study update that we'll be doing, it's still a young cohort. They're older but not much, you know, not a whole lot older. So they haven't died of the cancer. A lot of cancers are survivable. Non-Hodgkin's lymphoma, for example, which is pretty well established connected to TCE is survivable. Not -- I mean it so that's -- so that's a problem. If you have a cancer but get hit by a truck, the death certificate doesn't say you had a cancer. So these are problems with mortality studies. OK. And this is not the problem with the cancer incidence study. The other thing is that you have much better information on the cancer itself. So you can look at subtypes that you could not look at in a mortality study. For all these reasons cancer incidence is a whole lot better. It's just more difficult. That's why we waited to do the mortality study first because we knew the cancer incidence study was going to be extremely difficult, and it was. But one of the things that we've been working with NAACER on is to try to, if we don't have a national registry at least streamline the process. So there's only one IRB that you go to not 50. And there's one data use form you use not 50. And there's one form altogether not 50 different forms, and so on and so forth. And NAACER started that effort a couple years ago, and we gave them Lejeune data to start that process. So they were very happy about that. It helped -- it jumpstarted their effort. And that's why they're also helping us now in our effort. So there is an effort to at least streamline it but it's not a national registry. And you know, our rates that we have, our cancer rates are probably not absolutely accurate because a person could be diagnosed in one state and then go to another state and get diagnosed and can be counted twice. It's possible. And we don't have -- without a national registry, we'll double

count. So these are, you know, a national registry will actually give us more accurate incidence rates as well.

MS. FRESHWATER: And I think that working on environmental contamination around the country in my work, you find that the first alarm is usually a group of moms who notice clusters, and things going on unofficially, you know that why do we have to appendix cancers on the street. So just to kind of help people understand that would give us an opportunity to report these things and then look and see where things are happening. And so the moms can also have data to look at when they're -- So yeah. And then as treatments get better, and people live longer, this kind of work being even more important.

DR. BOVE: Right I mean, these studies are easily done in Scandinavian countries, for example. They don't have --

UNIDENTIFIED SPEAKER: [Inaudible] I heard 175 bases have this?

CDR MUTTER: I'm sorry, we have someone on the phone, if you can mute your phone, please. Sorry, go ahead.

MS. FRESHWATER: OK, thank you. I just for people that I'm wondering why we're kind of taking on this new one, as opposed to mortality. I think it's great to let them know.

CDR MUTTER: Thank you. Tim.

MR. TEMPLETON: Yeah, I'd like to make a point here. Something that I just found out recently and so I'd like to also share it here at this meeting as well, I think is a good forum to share this. It mainly has to do with environmental health coordinators that are at VA hospitals. So it would be through VHA. Contacted the one that is responsible for my area and found out that they actually do have a registry, but that each one of the areas has a different registry, different rules for a Camp Lejeune

registry. And that many times I got some feedback from a couple of folks that actually did the same thing as I did. They talked to their environmental health coordinator, and found out that they were not going to add them to that registry if they were not going to refer them to a specialist, to try to do more. So there's some kind of stuff going on at least as far as registries go, but so apparently it sounds like that each medical center is on its own.

DR. HASTINGS: There is, yeah. There is not a registry for Camp Lejeune, with regards to the environmental health clinicians and coordinators. These are people that are there to do the Agent Orange, ionizing radiation, Gulf War, airborne hazards exams, help with the depleted uranium, the toxic embedded fragments. In some facilities, they will also do garrison exposure exams, but not all.

MR. TEMPLETON: So it sounds like I mean, you mentioned about all the others except for Camp Lejeune on that. So I wonder why, why not? Why not. And in fact, when I talked to the environmental health coordinator, this happened to be for Kansas and Missouri, Eastern Kansas and Western Missouri. They said that, yeah they do keep information on a registry of those people. There's a form that they fill out when they go to there. I didn't ask to fill out that form because you know, I'm already rated. And so I didn't really necessarily need that. But I thought that that was kind of interesting in the talk that we're talking about registries of sorts. I know it differs from the type of registry and nature of registry that Dr. Bove and others are looking at. But since we were having a discussion about that, I just wanted to share some of the things that I found.

DR. HASTINGS: There is a, of course, a form that is filled out for the examination. I'm not sure, I'll call them and ask them if they have something unique there.

CDR MUTTER: Thank you. Ken.

DR. CANTOR: Yeah I just wanted to congratulate Frank on this great accomplishment in fact. Because as a cancer epidemiologist, this is something that we have been hoping for or a few working for, not many, because it looked like such an impossible. In fact, when you proposed an incidence study, maybe I was one the biggest doubters that you could accomplish it. But this is a great accomplishment. And I think it's the first step towards the national registry. I would hope so. And --

MS. FRESHWATER: Which means you'd get your R back.

DR. CANTOR: What? Oh.

MR. ENSMINGER: No.

CDR MUTTER: Thank you.

DR. CANTOR: So congratulations, and it's a wonderful accomplishment.

CDR MUTTER: Thank you so much. Are there any questions or comments for the cancer incidence study before I move on to our next topic on the agenda? And we are three minutes ahead of schedule guys. So I'm going to hand the baton over to Dr. Cantor and Dr. Blossom for their presentation.

IMMUNE STUDIES UPDATE

MR. ENSMINGER: I think that somebody should give some introductions on these two people that are going to speak and their credentials.

CDR MUTTER: Can we ask you to do that. You all know your credentials better than we do.

DR. CANTOR: OK we can do that for ourselves as we go on. My name's Ken Cantor. I'm a retired researcher senior investigator at the National Cancer Institute. I spent most of my career as an epidemiologist studying environmental contaminants, mainly drinking water contaminants. And I did a lot with disinfection by products and drinking water, which are closely related to TCE, which is what I'll be talking about. And arsenic and nitrate and one or two others that are less common. I also did a number of occupational studies as an epidemiologist. So I will launch into my talk. I'm going to be talking about the molecular epidemiology of trichloroethylene, which I'll refer to as TCE. So historically, epidemiology is the study of patterns of disease and their causes in populations with the idea that this understanding can lead to preventive action. And this is through case control studies, cohort studies, cross sectional studies, and the like. Now in the last, I would say 15 or 20 years or so, there's a new type of study, relatively new that is, of molecular changes that occur well before disease diagnosis. In response to chemical and other exposures. And this has become very important in revealing early steps into disease development. And the results can explain how a chemical TCE in this example can affect health and support the findings of epidemiologic studies of disease effects of a chemical exposure. And it can provide a mechanistic rationale or explanation for how the disease actually occurred. So especially in cases where

the association between an exposure and disease is a little bit iffy for, and that can be for many, many reasons, small populations or confounding factors; the addition of molecular information can put the evidence over the top. And this has been recognized by the International Agency for Research on Cancer. So TCE has been linked to kidney cancer with a very, very strong evidence. It's considered a class one carcinogen. Also auto immune diseases, non-Hodgkin's lymphoma. And there is -- there are -- there is evidence for associations with a large number of other diseases but the evidence, because again of small numbers, small numbers of studies, small cohorts and so on, the evidence would be a bit weaker, than for kidney cancer. So knowledge of the effects of the immune system can provide some of the answers to the questions of how these effects occur and in addition can provide the supportive evidence that can lead to causal inferences about these diseases. So in addition, low level effects are often unknown. And for TCE the question is, does the TCE variable levels affect the immune system. And the current US occupational maximum level is set at about 10 ppm and are there effects at lower levels. So I'm going to talk about a cross sectional study. The data were actually collected 13 years ago in Guangdong, China. The initial effort was to look at 40 factories to pull out those which were exposed only to TCE. Because there are many solvents that are used, some factories, some methods, manufacturing methods use multiple solvents. So the researchers wanted to look at people who were exposed only to TCE and not to these other solvents. As soon as you would have other exposures, you'd be posed with the problems that well maybe those other exposures were responsible for any effects that you saw. And they chose six factories that met that criterion and selected 80 healthy workers exposed only to TCE. And about 35 of those had levels below ten parts per million,

which as I mentioned is the standard in the US and many, many countries internationally. Two factories were selected with other exposures that, I'm sorry two factories, were exposure -- were selected with no TCE exposure and with no other solvent exposures. OK, so after the selection of these, measurements were taken on these 180, 190 workers altogether for three weeks. And blood and urine were taken at the end of that time. Blood counts were taken immediately. They were divided into many aliquats, many subsamples. DNA was extracted from some of the blood samples, and serum and urine samples were stored at minus 80 degrees for future analysis. And the future is actually extended to 2019, and will extend no doubt into the future as more methods are developed for studying these exposures. So the next four slides, we'll talk about some of the reports -- some of the results from the samples that were stored. So first of all counts of five types of white blood cells were decreased among exposed workers. And I've listed the five types of cells there. They are common cells in the immune system and of white blood cells. And concentration of two important immune system markers were lower among exposed than unexposed workers. And CD 27 and CD 30 are surface markers of T cells, which are the white cell -- the immune cells, white blood cells in the immune system. And most of these effects, now the medium level of this exposure among the 80 exposed workers was about 12 parts per million. So this group was divided in half. And effects for most of these exposures -- for most of these effects were found above and below 12 parts per million exposure. With regard to kidney toxicity, going back to the previous discussion here, five markers were examined in urine samples. And significantly elevated levels were found in kidney injury molecule, one, indicating damage to the kidney tubules. In addition to that there were marginal increases in another one of the five

markers, which was a P [inaudible] transferase. And another publication from this study, now look at what was affected below the regulatory standard. And in fact, of the 31 total biomarkers that were looked at in the study, six immune biomarkers were significantly decreased, and the kidney injury molecule was significantly increased. As I mentioned, there is work continuing and just not very -- not very long ago this year was a publication on DNA methylation variability after TCE exposure. And this gets into the field of epigenetics, which has to do with control of DNA expression. And it perhaps explains why TCE does affect the immune system. DNA methylation can affect the expression of genes that control the immune system. And in fact, the markers that were looked at in terms of the blockage of the DNA, were -- we -- many of them were related to the immune system. So in summary, this ten minute presentation, so molecular epidemiology studied TCE conducted where the data were collected quite a while ago, but with high regard to methods making sure that TCE was the only exposure that was under consideration. So it showed that TCE can affect the immune system and kidney function leading to autoimmune disease, kidney disease, kidney cancer, non-Hodgkin's lymphoma, possibly other cancers. And probably many other conditions with -- which have not been directly linked to these effects at this time. So the next two slides, and these have been distributed on paper to this committee, that are simply the references that I used and a few additional ones relative to this. Perhaps we should wait until after Sarah's presentation for questions.

DR. BLOSSOM: OK, thank you. That was a really good overview. So I'm Sarah Blossom, for those of you who don't know me. I'm an academic basic scientist, I'm not an epidemiologist, I have my PhD in immunology. And I have been studying the immunotoxic

effects of trichloroethylene in experimental models for about 15 years now. So I'm very familiar with the immune system and the immunotoxic effects of TCE. So I was really excited to update the CAP today and everyone else because there have been quite a number of studies focusing on the immune system that have come out in the literature and experimental models. So much in fact that I can't go over them all in detail in a ten minute talk. But like Dr. Cantor, I have put some references at the end of the slides and I'm always happy to share references as well. So OK, so basically, I'm just going to talk about some of these studies, overview and also some future studies that I think that we've got coming along, hopefully. So I think that experimental studies, I know they're important because traditional EPI studies tell us associations between a disease and a chemical exposure. And these are important because they can form the basis or rationale for us to conduct experimental studies. Because if we don't have that rationale, we're not going to get funding to do these studies to figure out the how and the why from the biological standpoint. But once we know these we can look further and this is what my lab focuses on and others have been looking at the effects of TCE in animals, primarily animals. So this is a slide, actually kind of stole it from the internet. I didn't make the slide. But a lot of the experimental data that has come out primarily from occupational studies suggesting, and from our own studies, that TCE can promote hypersensitivity responses. So hypersensitivity is actually a broad clinical term used to describe approximately four major classifications of diseases. Some are listed here. Autoimmune diseases, auto inflammatory diseases, immediate hypersensitivities, including asthma and allergy, and there are four major types. So I wanted to just, and the reason why I'm bringing this up, is because a lot of the literature that's

coming out is focusing on the ability of TCE to promote these responses. So I wanted to just show you this picture, and these are two -- the backs of two individuals. These are men. And to me is really proof that TCE exposure does in fact, alter the immune system in humans. So this is from a 2016 publication out of China. And these individuals were working with TCE. They're degreasing operations, and as a result of both dermal and inhalation exposures. So a small percentage of workers, primarily in China, have developed this severe type of hypersensitivity response and it's called a different -- lot of different things, but it's known as TCE hypersensitivity syndrome. So it can be fatal. Oftentimes it's not. And they -- and these responses are different from the typical irritation that's produced by solvent exposure. So if you're -- if you touch it or something. So it's more than just a simple contact dermatitis. So these individuals obviously recovered from the disease and interestingly several weeks later, they added, just to their back some of the metabolites of trichloroethylene and to their skin, and you can see the welts on their back. So this is similar to a type four hypersensitivity response, or a delay type hypersensitivity. Examples include, you know, like a TB skin test or a poison ivy reaction. So this is really showing that these individuals who were exposed to TCE definitely are getting some sort of immunological hypersensitivity response. So it's very difficult to classify. It appears to be systemic. And the reason is because there's this delay, so they get it between two weeks and two months after exposure, very severe skin rashes all over the face. The ones that I've just showed you, these are people who had recovered. But I think one of the most important messages is that not only does it seem to alter the immune system, but it involves liver and kidney toxicity and fever. So it a systemic kind of weird kind of response that no one can

really figure out what's going on. So as a result of that, there are several studies that have come out at different basic science, Chinese labs, that are trying to characterize this response in order to understand the immune mechanisms involved so they can better treat or prevent this from happening. So did you want to ask a question? OK I'll call on you first then. So this is a mouse model, sensitization model that these researchers have developed. And so it's essentially they -- it's a repeated exposure model similar to the human occupational kind of exposure. And what they do is, and the timeframe is different because we're talking about mice versus humans. So it's a shorter, I guess three week timeframe. But basically, they expose the mice. They, several days later re-expose, and I think they do a dermal. And they've done also drinking water as well. But this is an example of a dermal reaction. And they challenge it again, they wait several days and they re-challenge it. And basically, these mice become sensitized, similar to, you know, an allergic response but like, they also importantly develop paddock lesions and injury related to renal dysfunction as well. So these mice are getting exposed and their immune system is all dysregulated but they're also getting a lot of systemic kinds of responses. So studies are coming out, on this particular model, and they're really trying to figure out the biological pathway, but they don't really understand what's going on. So in our lab, we are focused more on the other spectrum, which is the auto immune response, that is also included under that umbrella of hypersensitivity diseases. Nobody knows why autoimmune diseases develop. But we do know that it's an interaction between the genes and the environment. So there are nearly I think 100, almost 100 autoimmune diseases. So individually, they're quite rare, but as a group they're very common. And although they're based on sort of -- or they're characterized based on target

organ toxicity, they share common underlying mechanisms, and immunological mechanisms that began at the level of the T cell. And I believe that the true scope of TCE immunotoxicity in the context of autoimmune disease has been underestimated due to limited numbers of epidemiological evaluations of the chemical. So this is why animal studies are important. And I just want to just briefly mention, we can control the genetic background of the animal, we can control the concentration, the route of exposure, whether it's through drinking water, which is what we do in our lab. And we're interested in target organs that are mediated by immune pathologies, such as the liver, the brain, the kidney. But we're mainly interested in in getting down into the weeds of everything and trying to understand what happens at the level of the T cell. So I really, I know it's late, and everyone's probably sleepy and hungry, but DNA methylation was mentioned. And I think it's important to talk about the biology and it's conceptually not that complicated. Basically, anything in the environment, such as even a viral infection, can modulate the DNA without changing the sequence. So this is done by certain enzymes in the cell that can either remove or add a chemical tag, like a methyl group. So you hear of DNA methylation. So this is essentially, if you -- if the DNA is methylated onto a certain region of the genome, it can prevent a gene from being expressed. If it's removed then it's going to allow for that gene to be expressed. So these modifications can affect how our cells basically read the genes. And I know it's a very complicated concept, but a lot of research has been coming out to show that TCE does alter DNA methylation. Oops, I have -- OK. So in our own experimental studies out of my lab, we're focusing on a type of immune cell, the CD4 cell that tends to drive these autoimmune responses. We've done both adult and developmental exposures, but we tend to focus on these

developmental exposures because the immune system is more vulnerable during developmental periods. And so our mechanism, you know, it's the why. We're looking at epigenetics because we've -- we did a study where we exposed the mice to TCE, we removed the TCE, but they still got -- what our mice get is autoimmune hepatitis. So they still got immune mediated liver pathology. So you don't have to just continuously expose the animal, you can take it away and wait for several weeks. Now weeks in a mice, in a mouse, excuse me, is the equivalent of years in a human. So let's see what else was I going to say about that. And so we think that autoimmunity is, I mean, as Dr. Cantor mentioned, epigenetics plays a role. So we're really trying to link this TCE exposure to epigenetic changes because of -- we need to find out the biological mechanism. So what we've done is, and these are all in the references. We've looked at a highly specialized T cell population that is shown to drive autoimmune responses. And the reason why this is important is because if you add methyl groups to these regulatory regions that's been mediated by TCE, this would impair the ability of the T cell to shut down. So uncontrolled T cell regulation, of course, may lead to autoimmunity and hypersensitivity. So that's kind of our hypothesis of what we think is happening. And very briefly, we've all heard about the microbiome, right? So our normal flora, including in our gut can influence the immune system. So there is an association between altered gut microbiome and many different autoimmune diseases. And we have shown also that TCE alters our gut microbiome. And we're working right now to try to figure out, you know, could this be another potential mechanism involved in TCE mediated disease, autoimmune disease. So we -- to summarize the immune system is clearly a target of TCE toxicity. And we are also going to look at another one of those responses where I think the funding is going to

come through, in a food allergy model to see how TCE modulates allergic responses in a peanut, peanut allergy. And we are -- and we're going to look at hopefully, the effects of TCE. Now what we've looked at are these pathogenic cells, but we want to see what -- how it's progressing the cell to become pathogenic. So we're going to start very early on in the cells life, because these immune cells can become differentiated. So I just received word that I got a very good score on my NIH grant. But they -- within the pay line, however, they don't tell you anything until council meets in October. And my program officer won't answer my phone calls. So I have to wait till October to know if I can do this T cell differentiation study. But anyway, thank you so much for your attention. The rest of it is just references, and I know that it's just late and everyone's tired and hungry. And science.

CDR MUTTER: Thank you. I believe Mark -- Mike Partain had the first question.

MR. PARTAIN: Yeah could you flip back to the picture with the back?

DR. BLOSSOM: Which one?

MR. PARTAIN: The --

DR. BLOSSOM: Oh the back picture.

MR. PARTAIN: Yeah the rashes.

DR. BLOSSOM: And this is published, I didn't like you know --

MR. PARTAIN: There it is, you went too far.

DR. BLOSSOM: Do something bad.

MR. PARTAIN: I mean sitting here listening to this is kind of scary. kind of, I guess, explains why I love cheese. Other than the fact that I have French background. But the, in all seriousness though, the children born at Lejeune, I hear quite a few report on our website and also some veterans as well. That rash that you see there, if you were to take a shirt, pants, clothes on, you know, undergarments and cleaned them with PERC and put them on me, I would look like that within 15, 20 minutes.

DR. BLOSSOM: Yeah.

MR. PARTAIN: And that --

DR. BLOSSOM: Can we do a case study on your PERC?

MR. PARTAIN: Sure. Sure. I mean I -- this exposure, I mean, it's documented actually throughout my life. I mean I've had --

DR. BLOSSOM: And I'm not trying to make light at all, its --

MR. PARTAIN: Oh no, it's hey, I mean, like I said, I'm a mouse, I love cheese. Anyways, this one particular thing has been present since birth. And there's an actual picture of me, you know, when I was younger with that rash. And all through my life, including I mean I've had allergy tests and stuff like that. But whenever I came across clothes that were dry cleaned, with PCE or PERC then I would break out in that rash. And I learned very quickly to not wear, you know, I would put cotton clothes underneath my clothes, suits and stuff like that. And I remember sitting in church getting smacked by my father because I was wiggling around because I was itching and burning. The only thing I could do to get it to stop would be get in the shower and turn it to scalding hot water. And that was the only thing that would give me satisfaction. It was like taking and

rubbing mosquito bites and pouring alcohol on it. That's how it felt. Now in my 20's I joined the Navy. And within four weeks I was basically medically discharged because of that rash. They sent me to the infirmary and ironically, the base that I was at was subsequently listed, like six years later, as a Superfund site for PERC. And the plume for PERC was underneath the enlisted barracks. And that's documented my -- in my Naval records. The -- as a young child, I had issues with liver enzymes been elevated. I remember at 16, 17 years old being told by my doctor to quit drinking. And I didn't drink at that time and stuff. Huh?

MR. ENSMINGER: Did you?

MR. PARTAIN: I didn't get caught that time. But anyways -- but no I, and to this day I don't drink. I very rarely will have something but I just, because of that. But I've had the issues with the liver, the skin. I've had elevated protein in my urine with kidney issues. And you know ear, nose, throat issues. I was as a child constantly in the doctor with ear, nose, throat issues. Elevated, you know, I just had my blood test done a couple weeks ago and the doctors what's wrong with you? You're showing an inflammatory response. And that's been what -- that way all my life. And every time I change doctors, they go well you've got -- your liver's messed up, you're this and that. I'm like doc I've been that way since I was 17 when I started paying attention to it. Anyways, I hear this, especially the skin, and this is a case in point going back to the registry for the VA. I hear this from the veterans, and I hear this from the family members. This is not being captured but if there was a registry for Camp Lejeune, these things would be captured and it would help you with your research.

DR. BLOSSOM: I was about to say, if we had a registry to capture your story or anyone else who has some kind of T -- some kind of immune system disease would be immensely helpful to research. I mean I primarily do my studies on animals because it's easy, you know, you can give them an exposure and you know, it's you can do things with mice you can't do with humans. But it would really help --

MR. PARTAIN: That didn't sound right.

DR. BLOSSOM: I know, I know. It, you know what, it is late. I'm a morning person. I'm so tired. Anyway, but I really think it would help researchers, because --

MR. PARTAIN: Well one thing before I forget and you made light of it, but in all seriousness, I have the majority of my medical records dating back to of course my Lejeune medical records they disappeared, but to about four or five years old. All the way through adulthood and to the present. And I'm more than, if you want a case study, I'm more than willing to be a guinea pig and, or a mouse, just give me a lot of cheese.

DR. BLOSSOM: Thank you.

CDR MUTTER: Well I see a lot of name tents up, and I want to make sure we have enough time for our community members to comment. So if we can go to Tim, Lor, and then Chris, and then if we could, end the meeting with the community members. Go ahead, Tim.

MR. TEMPLETON: Two questions. First off, thanks so much for doing this. It's very informative. It really opens our eyes to some of the new stuff that's -- that is in the queue and has already come out. And thank you so much for doing it. It's very important that we hear this. First off and this will be for

either one of you, that ten parts per million air concentration. What roughly would that equate to as far as an ingesting -- ingestion?

DR. CANTOR: Well I had a brief discussion with Frank before this. I've been asking myself the same question. And we had a brief discussion. And Frank, you can -- we don't have a definitive answer, is one answer. But Frank has --

MR. TEMPLETON: But it's been --

DR. CANTOR: But he's probably thought about this more than I have. So --

DR. BOVE: I mean it's more difficult than -- in the mortality study and the discussion section, I tried to -- try to make some kind of equivalence between the Hadnot Point exposures around -- In the water model we estimate something like 700 and some parts per billion --

MR. ENSMINGER: 780.

DR. BOVE: Monthly. Yeah. And I use that although I could have used 1400 parts per billion. And tried to make an equivalence between inhalation, dermal and ingestion. There was an old article that did that. And so I used that, because that was the only thing in the literature. But in discussing with some of the people on ATSDR staff who worked on the PHA, the public health assessment, and they have -- they came up with scenarios there, inhalation scenario from showering, ingestion scenario, and even a dermal. Not quite. Dermal is funny because it depends on what the worker is doing. If the worker is dipping their hands in TCE, they're going to get a hell of a dermal exposure. But it really -- I don't think they do that anymore. I saw them do that years ago. But the problem is that you really -- to do it right,

you have to do some modeling to make them equivalent. Because the ingestion rate will produce more of the metabolites than inhalation rate, and just how much more I think it makes sense to actually do it right. The EPA has a, what they call PBPK, pharmacokinetic model, to do that, and we may play around with that. But we haven't done that yet. We're just thinking about it at this stage.

MR. TEMPLETON: Great thank you so much. I appreciate it. The second question, actually, this would go towards VA on this one. We've been talking about a registry a little bit, but one of the things that I've called for in the past, and I'm going to renew that call right here today, is that in light of hearing this, that the way that it affects people who were exposed to trichloroethylene, I would recommend and on behalf of our community that we get that type of testing for those biomarkers done on anyone who wants it. That it's offered to them, because they were exposed to TCE. So that that way they can at least form some kind of a baseline within their medical record too of do they have this or not, how did it happen? I think that there are a few markers here that they discussed here that at least tracking those markers and capturing those in time might be beneficial to VA and being able to help provide a better service for our community. But then of course the community would benefit as well. So --

DR. HASTINGS: Absolutely willing to look at them when we have our discussions with ATSDR. Thanks.

MR. TEMPLETON: Awesome. Thank you so much.

DR. CANTOR: I was just going to come it I think a little more science has to be done before you go into the general community that was exposed 30 or 40 years ago. I think what you have to

show is that people who are occupationally exposed after exposure stops, after some time, still show what evidence do they show if any of that ongoing exposure? Is it still there? Has it disappeared? And you need a large enough population that there will be some genetic variability that there might be a few percent at least of the people who could show something. I don't know what they were -- clearly people do show something. And it lasts for a long time. But what proportion of the population? What proportion of the population is affected in that way is not at all clear at this point.

MR. TEMPLETON: Great. Thank you so much.

CDR MUTTER: Great. Thank you, Lori.

MS. FRESHWATER: So as the person who asked for this at the meeting I just want to also say thank you. I'll try and be very brief. Like Mike, I have medical records going back to when I was very young. And I'm going to say this because, you know, this is not something I have fun talking about, but to help the community, because so many of us suffer from strange rashes. So I've been diagnosed multiple times, with misdiagnosed with shingles, herpes. I've been told that I had shingles when it was a spider bite or a spider bite when it was, I mean it's just over and over and over again. And these aren't rashes that just go away. These are rashes that turn into something that affects your life, your quality of life. I too have the hypersensitivity. I can't -- I can't drink, I can't -- anyway, I won't go through my whole medical history. But I was on base for those of you that don't know, from '79 to '83. And I went to school at Tawara Terrace. So the chemicals were pretty loaded into that water at that point, I believe. And I just want people to know that we're not trying to establish something today that

says, we're going to be able to get benefits. This isn't for me, this is not what this is about. This is about helping the science because we all need to know what these chemicals are doing to our bodies. Because let's be clear inflammation, and these kind of things lead to cancer. This is all connected. And so if you have asthma, and if you have rashes, these are things that you need to document and keep. Don't think that you're being a hypochondriac. You're not. Document it so that you can let your doctor know what your history is. And also look into ways that you can keep yourself healthy by eating well for anti-inflammatory diet and taking care of yourself. Because you -- I think this is not science or government. But I think anyone who has -- who lived on base for a period of time and was exposed to this stuff, you probably have, let's just say you might have a tendency to have some of this going on. So take care of yourself and just be aware of it. And that's really what I'm about. And I think this has been really helpful and I'm very excited about new science coming out. And I hope, you know, with Mike I would sign up for -- to be a guinea pig. I've already threatened Dr. Blossom with all of my photographs, of all my rashes and my puss and my -- all the good stuff. I have it all documented. So yeah, I just think it's great. And I hope that the members of the community will kind of go forward in that spirit as well.

CDR MUTTER: Thank you and I really want to get to our community members, so Chris you'll be the last.

MR. ORRIS: Thank you very much for this study Dr. Blossom and Dr. Cantor. Like Mike, we're two of the children who were actually born and exposed on the base. And when you go through this study, I know probably Mike and I share the same thing which is, scared. You know, you see some of these things and it just pops into like, my whole life. I've experienced these same

rashes. With dry cleaning. I wear shirts underneath with cotton no matter what. But if you could go to the slide that's right before this one, that's on the screen. When you were showing this slide right here, it was incredible to me. I have a form of asthma that only exhibits itself when I'm in a vehicle, and there's a very stinky diesel engine right in front of me. It'll trigger an asthma attack.

MS. FRESHWATER: I have that too.

MR. ORRIS: Yeah. And then then you start looking at the food allergies, and I'm developing food allergies now. Bananas, its turned into latex. I've got pistachio allergies, that are just developing as time goes on. And, you know, I'm very interested in these studies, not just from my viewpoint. But like Mike, I just wanted to say that, you know, that these are really striking home. My one question for you is are you seeing any multi-generational effects in these studies?

DR. BLOSSOM: We have not done transgenerational studies. Those studies are extremely expensive, because you have to have F1, you know, F1, F2, you have to take it out several generations. And to have enough animals you have to have your controls, your exposure groups, toxicologists, you can't just have one dose, you need to have more. Other researchers are doing transgenerational studies with other environmental toxicants. Like the [inaudible] A is one of them. I'm trying to think other -- some endocrine disrupter type chemicals. But, you know, it just has not been done yet. We're trying to establish sort of what's happening when the exposure occurs during development. And if we can pinpoint that then I think the next step will be to try to do some of these transgenerational studies. But then when you ask for money, the NIH goes ah, so --

MR. PARTAIN: There's a program on NOVA --

MS. FRESHWATER: Because they're doing a program on Agent Orange, right? There's a lot going on --

DR. BLOSSOM: Yeah. Yeah.

MR. PARTAIN: There's a program on NOVA called ghosts in your genes, it came out in May of 2006, just ahead of the hearing for the poison patriots. But that program followed Dr. Skinner and the epigenetics, and it's very eye opening. I would suggest anyone in the audience to go look it up on the online, it's NOVA, which is the PBS program. And the episode is called ghost in your genes, G-E-N-E-S.

CDR MUTTER: Thank you.

MS. FRESHWATER: And also Pro-Publica has a really good program on Agent Orange where they are taking in data and looking at generational effects.

CDR MUTTER: Thank you so much Dr. Cantor and Dr. Blossom. We appreciate the presentation. So at this time, if we have a question from the audience, we have a microphone set up right here. We do have a limited time in this meeting. But I want to remind everybody tomorrow over half of our meeting will be set up for public comment, public questions. So if you don't get your question in tonight, please come tomorrow to our public meeting. So with that, if we have any questions you can make your way to the microphone.

CAP UPDATES/COMMUNITY CONCERNS

MR. PARTAIN: And please be respectful of other people's time if you have a question, make it succinct and to the point so we can get as many in. In the past, you know, everyone has been at Lejeune, a lot of people have been affected and unfortunately don't have time to go through the whole history. But we do want to hear some questions.

MS. FRESHWATER: And also please be -- remember that the people here are usually representing other people. So try not to take out your understandable feelings on the people in the room.

MR. PARTAIN: Nobody?

CDR MUTTER: I think we have a taker. Yeah please go ahead.

AUDIENCE MEMBER: At the beginning of this meeting, there was a lot of discussion over the Camp Lejeune restoration advisory board, is that the name of it? And about trying to get everybody together and getting people in the meeting. In this is day of technology, video conferencing and telephone calls, why do these people have to travel and make themselves available for travel and lose a few days? Why can't we set a meeting up, that includes the Community Action Panel, and whoever else on the internet like we do everything else. I don't get why that has to be so adversarial. And why aren't these people here speaking for themselves? OK, I would love to see this meeting. And travel -- I'd traveled to it. But man, if I could do it on the internet and save me a trip to North Carolina it certainly would be beneficial. I don't have the money to run around the country.

MR. ENSMINGER: That's a good idea.

AUDIENCE MEMBER: So I don't get why in this day and age it has to be so adversarial on trying to get together.

MS. FRESHWATER: And it would help our carbon footprint.

AUDIENCE MEMBER: So there's so there's that. And then the second thing, there was a lot of discussion on ATSDR, whatever your acronym is. Whatever your acronym is there and the VA getting together. Why does that have to take so long? Set a date? Let the Community Action Panel know the date that you're having the meeting. So at least we know something's being done. Something's being worked on. This doesn't have to be this way people. Let's move forward. And I guess my question would be, does anybody who's not on the Community Action Panel does anybody sitting here have anybody impacted by Camp Lejeune? Know anybody personally who is sitting at this table? Because if not I think that's the issue. Those of us who are impacted by it, see an urgency. We're here for a short period of time, some of us shorter than others. So the action needs to happen. Not every six months of being able to ask questions, and then not have a question answered when the six months rolls around. We need the answers. And we need this process to move forward. This every six months, this is the second meeting like this I've been to and a lot of it was the same stuff I saw in 2019. So it's time. Come on. We're all adults, 2018, whenever it was, it was in Pittsburgh. OK. Whenever it was. OK, but it's time to get together and move this forward. So let's do that. And if you don't know -- if you don't have somebody in your life that's impacted by this, start asking around the office where you work at. You're in government service, for crying out loud I'm sure there's plenty of people who want to see this move forward too. So it's time. Jerry's been at this for a long time. Mike's been at this for a long time. It's time to stop talking and communicate and get these things done. Get the questions

answered, and move forward with this. Not sit around and not get anything done. Let's do this. I think we can do this.

CDR MUTTER: Thank you, sir. Thank you.

[Applause]

[Inaudible Comment]

AUDIENCE MEMBER: I'm a little confused about if you didn't live on base, but you worked full time on base, or your child went to daycare full time on base. Would you not be eligible because you didn't live on base 30 consecutive days?

MS. FRESHWATER: She's asking -- are you asking if you had to meet the 30 day requirement to live on base. That is correct. That's the law.

AUDIENCE MEMBER: But if you worked a full time --

MS. FRESHWATER: If you want to change that, then that's what Jerry was saying earlier about having to go to Congress. So you should --

AUDIENCE MEMBER: That's our only?

MS. FRESHWATER: Yes.

MR. PARTAIN: You also have the federal employees --

MS. FRESHWATER: No, her -- the daycare.

AUDIENCE MEMBER: Well I worked full time there myself, but my child was there, from age two to five.

MS. FRESHWATER: Oh, I thought you said you didn't work on base.

AUDIENCE MEMBER: No I worked there full time and my daughter was on daycare on base from age two to five. We didn't live on base.

MR. ENSMINGER: Where did you work?

AUDIENCE MEMBER: At Public Works.

MR. ENSMNGER: Over by the fuel farm?

AUDIENCE MEMBER: Uh-huh.

MR. ENSMNGER: Oh god.

AUDIENCE MEMBER: And my daughter was on --

MR. ENSMNGER: Oh that was --

AUDIENCE MEMBER: At the daycare.

MR. ENSMNGER: Well there's monitoring wells in the parking lot of that building.

AUDIENCE MEMBER: Well that's not the only place I worked.

MR. PARTAIN: Yeah. Have you ever you had any --

AUDIENCE MEMBER: In order to get my foot in I was working wherever I could find a job.

MR. ENSMNGER: Yeah. How many years did you work on base?

AUDIENCE MEMBER: Oh the whole three years we were living there.

MR. ENSMNGER: OK what years was that?

AUDIENCE MEMBER: '77 to '80.

MR. ENSMNGER: OK. Yeah.

MR. PARTAIN: Now are, do you and your daughter have any adverse health effects or?

AUDIENCE MEMBER: Well yeah.

MR. PARTAIN: I mean cancer.

AUDIENCE MEMBER: Not that I know of yet. But yeah I have a lot of stuff and my daughter has both kidneys are affected.

MR. PARTAIN: What year were you there again? I'm sorry I didn't.

AUDIENCE MEMBER: '79 to -- '77 to '80.

MR. PARTAIN: OK so that was when the daycare was -- on the main side that was the --

AUDIENCE MEMBER: Yeah she was a daycare from age two to five.

MR. PARTAIN: Yeah the daycare building at that time was prior to being a daycare building was the base pesticide mixing shop, where they mixed the chemicals.

MR. ENSMINGER: Base exterminators.

MR. PARTAIN: Yeah. They closed it in '82 when they started doing the environmental studies because they found Coraldain [assumed spelling], Lyndain [assumed spelling] all around the yard would, you know, around the building.

CDR MUTTER: So --

MR. PARTAIN: The thing is the -- with the employees and we've run into this and it's kind of, with the employees on the base, the firefighters, the civilian employees and stuff, there is the Federal Employee Compensation Act, FECA. That it's kind of like workman's comp. And that's right now the avenue that you guys have to go through. And what is one of the problems is happening is there haven't been enough employees that have gone through got rejected to where we could turn around and go to Congress and say there's a problem. So that's why the 30 day requirement in the law is, you know, that's -- I'm not sure why it got on there. But it -- that's the part of the law that you lived on

base within 30 days, to quantify the exposures. Unfortunately the --

AUDIENCE MEMBER: [indescernable] full time.

MR. PARTAIN: Yeah the law didn't extend out to the federal employees. And I know, there are some that I've run across. I know there's a nurse that actually, the labor delivery nurse died of stomach cancer. Had a child while she was -- pregnant while she was working at the base hospital. The child came out with cleft palate. And unfortunately even though that's one of the covered conditions, I mean one of the signature conditions that's not covered under the Lejeune. And but the employees, I know we talk about it. You know, we need the data back from you guys, like someone's coming down with kidney cancer or you know something that we can go to Congress and say, hey this person worked at the base --

MS. FRESHWATER: But you so you should contact your congressperson just to go back to what I was saying.

MR. PARTAIN: Now where do you live at now?

AUDIENCE MEMBER: Manassas.

MR. PARTAIN: Virginia. OK. So get the -- I mean, get your congressional representative and your state senators involved. They, you know, Virginia is aware it's one of the higher states with Lejeune veterans who are registered with the Marine Corps. So they're not a stranger to this issue. But unfortunate, you know, the employees, we -- it's like I said, we don't have an answer for you yet because we haven't had the, oh I have kidney cancer, kidney cancer's related TCE and I've been denied benefits. And without that type of thing that we can go to Congress we're kind of stuck on the mud, if that makes sense.

DR. BOVE: By the way, I didn't mention this when we talked about the cancer incidence study. But workers at Lejeune from December '72, all the way to '85 are in the study. So they're also in the mortality study. So --

MR. PARTAIN: And there was some findings with that.

DR. BOVE: Huh?

MR. PARTAIN: There was some findings with the workers, the mortality studies.

DR. BOVE: Yeah Parkinson's. And that's, in fact, we're trying to explore Parkinson's as well as part of the cancer incidence study working with the VA researcher. And so we'll be able to look at that as well as, Parkinson's as well as some of the other neurologic diseases too. But that's -- it's similar -- it's separate, but it's part of this whole effort. But we're -- but workers are part of the cancer incidence study and the mortality study. They've been -- we've done that before, and we're updating that portion. So we'll have some information on cancers among workers. At least workers who were there from November, December, the last quarter of '72. All the way through '85.

MR. PARTAIN: Ma'am I'm sorry we can't give you an answer right now. We haven't forgot you all. And, you know, it's just, you know, there's so many fights that we're fighting. But believe me you're not forgotten. We do talk about the employees, we it's just -- we got to get the traction to push it forward.

DR. BRESYSSE: Mike, maybe you could talk to her offline a little bit about what she would need to say to her representatives to kind of build this case, maybe a little bit of coaching would help?

CDR MUTTER: Chris.

MR. ORRIS: I also think this is why we need to stop looking at this issue as a veteran issue, as a family member issue, as a civilian worker issue. The exposure didn't identify the people that it exposed as a veteran, as a family member, as a civilian worker, as a child in daycare. This was an exposure to all people at the base. And hopefully, we can get this corrected as time goes on.

CDR MUTTER: Thank you. Ma'am?

AUDIENCE MEMBER: I'm a widow. And I want to piggyback on your comments. We didn't live on base. But my husband was a lifeguard at New River. And I'm a widow but we didn't live on base. But I was in that pool all summer. We lost our first child. And we're now into the third generation. My son served at Lejeune, well we're in to more generations than just the third at the base. I have the names listed who served in the Marine Corps on my back, and on my heart. Am I going to get Parkinson's? I'm not covered. I will be going to Congress. I'm with you with this Camp panel. I'm only a 20 month widow, and I'm just recovered enough to be here now. But I'm going to fight. You take that to the bank, I'm going to fight. I've got three grandchildren, two of them have had issues. My son's got issues. That's three generations, and you want to give any answers next year. Thanks.

WRAP-UP/ADJOURN

CDR MUTTER: Thank you, ma'am. Do we have anybody else in the audience that would like to make a comment? OK, I want to remind everybody tomorrow we have more time for comments. And one other thing if you did park at the hotel, if you make sure you get

your ticket and take it to the front lobby and tell them you're with the Camp Lejeune CAP meeting, they'll discount that to $10 a day. So If you've got your white ticket, please make sure you get that taken care of.

MS. CARSON: And Jamie, I also wanted to just remind everyone tomorrow that we will have our veterans benefits counselors here. So if you have questions about your claim or pending status on the VA issue, we'll have a room set up next door and they'll be able to see you. They will be here from 8:00 a.m. to 1:00 p.m. Thank you.

CDR MUTTER: Thank you, ma'am.