

DENISE KING: Hello, everyone. Thank you again for joining us today. It looks like we still have a few people dialing in, so I'm going to give it one more minute and then we'll get started. Thanks so much.

Hello, everyone. Welcome and thank you for attending our VA Mobile Help discussion series webinar today on the airborne hazards in open burn pit registry. My name is Denise Kennedy and I'll be your moderator today. You have the option to use your computer or your phone. If you want to dial in using your phone, please dial 201-479-4595 and enter pass code 298-7727. This information is on the screen on your computer.

If the chat box is not visible on your screen, click the blue chat bubble located at the bottom and the chat box will appear. Your phone lines are muted but if you are experiencing any technical difficulties, use the chat function and someone will be in touch.

Today, our presenter is Dr. Paul Ciminera, Director of Post-9/11 Environmental Health Programs. To respect everyone's schedules, we'll keep this moving, so the session ends on time. If you have any questions, please use the chat feature and we will get to them if time allow. If we don't get to your question, we will send out an email following this webinar with any relevant answers. And, with that, I'll turn it over to you.

PAUL CIMINERA: Well, thank you, Denise. This is Paul Ciminera, and I'm a physician here in the Office of Public Health, specifically the Director of the Post-9/11 Era Environmental Health Program, and, today, you'll see the content slide in front of you. I'm really going to focus in on sort of behind the scenes actions that took place to launch the airborne hazards and open burn pit registry. And then talk a little bit about some of the results and where we're going. Next slide, please.

The focus of this is really geared towards people who might be considering doing such a development, as well as folks in the development community who would be involved. I'll give you this disclaimer. My opinions are my own. I tend to say what I think and, hopefully, have some information to back that up, but if it's something you feel is in error, please contact me, loved to discuss it.

In terms of my background, so that you understand the way I might be seeing things, I did start as a part time programmer when I was in high school, working in COBOL. And these were back in the days, where, when you wrote a computer program, you'd write it on a large

ledger of paper, line by line, to make sure that it was going to work because each of those lines would have to be data entered by a key punch operator onto a card and read into the computer and then probably stored to tape. So it was a very lengthy process and a lot of planning went in. But then, as I went through my career, I did get involved in sort of the opposite of that, where you had to have a solution yesterday and this was predominately while in the Department of Defense. And I developed engineering solutions and then actually deployed with them, as part of the intelligence community, in order to meet the missions of the intelligence community. And then, most recently, I was a physician in DoD and here in the VA. Next slide please.

So the issue that we deal with in this office is the high level of reports from Veterans that their health was affected by their service and, specifically, environmental hazards. And when I say environmental hazards, typically what we're thinking of is forces, physical, chemical, biological, that affect an individual that are really out of their control. So some of the military things that might come to mind are chemical warfare agents, blast pollution, and things of that sort, and ionizing radiation. And our issues do go back to Veterans who are World War II era, as well as the more recent Veterans. And many of these issues are actually informed by information way back from, say, World War I in terms of chemical agents and what they may do to the individuals. Next slide, please

So here on slide five is basically the old way that our registries were created and now what the registries are is a specific program where individuals who have had these exposures can come in, they can be evaluated, we can gather information about them to help us understand health effects, as well as connect them with resources that may assist them in managing their health. And, as part of this whole program, certainly we have policy, we have education, and we have systems.

So the old way of doing business was the Veteran would have a concern. They would look up on our website or go to their facility and find out who their environmental health coordinator is, and they would make an appointment to be evaluated. It's interesting to note that, as part of these evaluations, is not a compensation exam and it's not health care. And the third thing to note is it does not require an individual to be enrolled in VA. So many of these folks are not even in our system, so when they call for an appointment, we don't even have a system to log them in to and keep track of these appointments and when they're going to occur.

Also, these exams, because they're not compensation, they're not care, they tend to be

implemented in different ways at each facility. Some facilities might do them as part of compensation services and evaluations, others might do it as part of their primary care. And you can imagine the complexities there, where primary care, seeing somebody who's not enrolled and all the scheduling issues involved.

And then, when they do get seen, we have a structured form which the individuals, with the assistance of the staff, fill out. It can be a multi-page questionnaire or form, gathering information about the activity they were in, be it radiation related or deployment related, and then that gets manually data entered into kind of a stove pipe database. So I talked, while explaining this process, some of the limitations and they're listed here in the slide. So, next slide please.

So what we basically did is we formed a concept. We really wanted to improve the way we do business and one way of doing this would be an online questionnaire. And, by doing so, we felt we could improve access, because not everybody really needs to be seen in person or desires to be seen in person. And, by capturing data directly from the individual, the Veteran or even in the airborne hazards, I'll get to it, is service members as well, we have information up front and we can then start the tracking process because, again, these folks might not be enrolled and so we've actually got some data on them and we can see how do we get them in to be seen, if they want to be seen and what are health outcomes?

Tying this into the questionnaire was the idea that we would use a structured CPRs note, so that when they do come in to be seen, there would not have to be a separate paperwork process and manual data entry. Basically, the clinician, when they fill out the note, would gather the information we would need to capture, as well as be able to pull up administrative and clinical information. And what really made this all possible, this opportunity, is the fact that DoD has been working pretty aggressively in the past decade or so to automate a lot of the data collection that we need to identify Veterans who may have been exposed, may have deployed and been exposed, and we also had VA's Web and Mobile Initiative and Veterans and service members today have much more use of the internet. Next slide, please.

Here on slide seven, I want to just talk a little bit about how this particular project rolled out. And each project would certainly have its own pathway, but the interesting points here were we actually started creating a BRD-- a Business Requirements Document-- to re-engineer the old process of the registry and that was done about 2012. Shortly thereafter, in January, 2013, the President enacted a law that said we had to establish a new registry within 12 months. So

that was a pretty aggressive timetable and it was outside of the normal cycle of obtaining funds for these type of efforts.

So, considering this, we went in front of Dr. Petzel and Steph Warren and tried to come up with a way that we could meet this aggressive timetable and it was clear that the OIT process, which would require us to get funds and then to do contracting and that such, would not deliver anything within a year. But, serendipitously, the VHA, in connection with OIT, was establishing this new mobile health initiative and Kathy Frisbee and Gail Graham were willing to devote the personnel and the resources they had available to them to actually do the work. And there was an opportunity cost with this decision, because those folks were actually planned to oversee many different contracts and because they were actually involved in the day to day work of getting this project done, that may have slide off some of the other time lines.

And then the long term plan was that OIT would take over more of the enhancements going forward, as the normal processes played out. And, as we speak today, the system's in maintenance mode and, over the weekend, both Web and Mobile and OIT will be working to migrate much of the data to a new system, as well as provide some enhancements. Slide eight, please.

Now, it's important to note that I talked a little bit about the IT solution and this kind of blurry graph, at least blurry on my page, and that was not intended for you to notice all the details, but what you have here is the project plan which I came up with to get this thing out. And pretty much 2/3rds down the way in his Gantt chart, you'll see a bar and that's the IT portion. All the other aspects of this were really things that, as a program office, as a business owner, were really on my shoulders and the folks who work with me and collaborate with me to get done. So I think that's something that anyone undertaking such an effort would need to realize, that the ultimate responsibility is with the business owner and it's not going to be a turn key operation. Slide nine, please.

So once we did get started, there's a number of different processes and methods that you can do development. I think, if anybody's really going to undertake such a thing, I would recommend they read a short book called *Reflections on Management* by Watt S. Humphrey and that's in the Carnegie Mellon Press. He's a longstanding executive from IBM and he talks a lot about how software teams work and it's kind of a fun read. It's only 200 or so pages, and a lot of good anecdotes and how to deal with people and processes.

But you'll see the clinicians and developers really come from two separate worlds and, in order to get a project that's going to be useful for clinicians, you need to have the clinicians involved and it's very difficult to get them to spend the amount of time needed to work through things. And so there's a particular technique called a Scrum. It comes out of the idea of rugby, where everybody gets together and moves the ball forward. So, for this project, we were meeting two hours a day, three times a week and we had VA, DoD, and the developers on board with those meetings. So that's a lot to ask for a clinician, especially if it's a clinician who has the on the ground knowledge to turn such a project into something useful.

So big commitment but that's really what needs to be done. And, within that Scrum, you need to work on ways that you might be able to communicate outside of that cycle, so that, when things do come up and you can't, as a clinician be part of that time call, you have another way of moving that ball forward.

I wanted to mention a little bit about this idea of agile development and how it links in with the traditional way that VA does business, which is this thing called Project Management and Accountability system. Now, in theory, a lot of software today is done with agile development, which is this idea of this scrum where you get together, you talk about where you want to go next, and you see what's needed to get there and how long it's going to take it. And you kind of make a collaborative decision on which way to go.

But this has some inherent conflicts, because the developer may say, well, we can't get there and it may be your number one priority. So you're going to have to learn to work in groups and manage that. And, really, it comes down to, well, who's in charge? As with any team, you can say this to my intent and I'd like it, but it may not be possible, and you really don't know because you're relying on key member's experience to evaluate what it really takes. So, sometimes, it could be difficult but you have to work through it.

Now, I guess an additional twist to this is the idea of this Project Management and Accountability system. Now, as with any IT project, you want some accountability to deliver but this is very complex in the way it's implemented in VA because there's additional constraints that have been placed on it. And, typically, when you're dealing with OIT projects, they tend to be six month firm fixed price contracts and, having almost 30 years experience myself with development, a firm fixed price contract is quite good if you know what you want to build and how to get there. But, in order to be flexible, it really doesn't work out very well.

And, on top of that, if you're doing these reviews and all of what they call artifacts, the paperwork required to meet your milestones, and doing that every six months, that's a tremendous overhead and what can happen is that a system designed to reduce risk becomes a system that doesn't allow any risk. And, without risk, you'll never improve and you'll never innovate.

So there really needs to be deliberate decisions as to what risk you're going to accept and how much innovation you're trying to get. And I think you'll see, with the Web Mobile solutions, within VA, we are trying to work on ways to improve that process and those improvements are quite welcome.

Finally, I think the last word of wisdom here is, in order to expand and innovate in today's world, we want to make use of data and use that data to improve our processes and improve our ability to react and respond proactively to Veteran's needs. But, with all the data we have available, there is not much of a capability, a person you can go to, to give you a sense of whether or not something is feasible.

So, typically, you would want a pilot or something like that to explore the data and determine if something is feasible. But, consider, that all takes time it takes flexibility, so you would not want to do such a thing in a firm fixed price contract and you probably wouldn't want to do it if you're mandated to get something out the door within one year. So that's a couple of, I think, pretty interesting points I just made and, at this point in time, we have a little bit of time scheduled so that we can entertain questions and make this an interactive presentation.

DENISE KING: Thanks so much, and we don't have any questions right now. I want to remind everyone that if you look to the bottom of your screen and click on that little bubble, that will bring up the chat. And you can use the chat ask any questions and we'll stop periodically to do so. But, as of right now, no questions so I'm sure they'll come in as you get a little bit more down the line in the presentation.

PAUL CIMINERA: OK, thank you, Denise. So, jumping on to slide 10 and we have some results. And what you see here in the top left is actually a screenshot of our registry, which is an online registry, and Veteran's log in. It basically allows us to identify who they are and then we pull in real time data from DoD to determine if they've deployed to the regions that would make them eligible.

And then, once they do get into the system, basically the follow on pages would be a

questionnaire, where they're reading a question and selecting the response. And then, tied in with that, we have health communication to tell them about the risks to their health due to their deployments and their exposure and then ways that they can connect to VA for resources.

One such connection is there in the middle, which is a picture of a happy Vet and their staff. And there's an optional in person evaluation. I had mentioned that the prior registries required that in person registry evaluation, which meant that people had to travel to a medical center. So what we've done in this case is, it's optional, for those who have additional concerns or maybe symptoms that they might like to have evaluated. And then I'll get into some further detail about how we've tied in the clinical record for those evaluations.

Now, based on those first two activities we have reported on the registry data-- we have to report that we've released so far-- and this is a screenshot of one of them. Each report is quite comprehensive, about 40 pages, and it feeds back to stakeholders, Veterans and VA what we're learning in pretty close temporal proximity to this data being collected. Next slide, please.

Here's the milestones. I mentioned there's a whole bunch of things on that Gantt chart and some of the things to consider was we were collecting data directly from Veterans, which meant the Paperwork Reduction Act was at play. And there's a whole bunch of regulatory requirements for that, which, as the program office, we had to steward through the process. We also did usability testing, with the BHA Human Factors engineering team and those guys are great. And we were able to actually invite some of the very interested stakeholders from the Veteran community to look at a very early concept and provide feedback from them and work on that.

And, of note here, we did a pilot, which started in March, April in three sites and that was really to test the clinical side, the clinical template, CPRS, and that's a requirement to do our national template. We then had some guidance, some federal register notices, saying who's eligible for this. As I mentioned, registries are different than care and they're different than compensation, so they do have specific authorities that VA has to provide this service.

And about one month after we notified the world, so to speak, that this was available, we had our 10,000th participant. Since then, we've done the two reports I mentioned and we are contracting with the Institute of Medicine to look at the registry and provide us some recommendations of how to improve it, as well as how VA can best care for the issues that

Veterans may have. Next slide, please.

So, I want to go a little bit in detail about this clinical evaluation and we leveraged our [INAUDIBLE] Public Health War Related Illness and Injury Study Center, and there's three locations as part of the Center. We have Palo Alto, DC, and New Jersey. And New Jersey has really become a airborne hazard center of excellence. And this is a tertiary care capability that clinicians can consult with, as well as they do in person evaluations for Veterans.

And what those facilities did is they really leveraged their capabilities in understanding the issues, in doing research, and in caring for Veterans, and we came up with a standard template for CPRS, which is designed for primary care providers and environmental health providers to do their initial evaluation of these individuals. Next slide.

Rolling this registry out, we really focused on social media. It is an online registry and there's a nice YouTube video we just put out at the annual anniversary of this national release. And last year, in 2014, it was in the top 10 in terms of use for Facebook and government delivery and things like that. Next slide.

This is data from our first report, which was participants basically the first six months after national release. And there was over 20,000 at that time, after six months of operation, who had completed the questionnaire, and there was another 10,000 to 15,000 at that time who started but had not yet completed. And they tend to represent those individuals who deployed. It's a pretty representative sample. Slide 15, please.

And through the registry, it's a capability where we're able to very quickly find out where people were, what they did, and, specifically here, we're showing activities that could be hazardous to the health of those Veterans and allows us to gather that data and it allows us to cater our approach, in terms of responding. And you see, beyond burn pits, almost everybody was exposed to dust storms, 98%. And then there are these other issues, exposures, could have health effects, such as if you're in a tight area and there's a lot of weapon discharges, it produces some dangerous gases that could have affect on the lung. This case in point. Next slide, please.

And we asked them about their health outcomes and this is a baseline questionnaire. So we're seeing many of the things that we do know occur with deployment, such as insomnia, neurological problems, well, basically insomnia is a big one, as well as musculoskeletal disease. But we're also capturing data on some of the issues which we feel are more likely to

be connected with exposures, airborne hazardous exposures, such as asthma, chronic bronchitis, and COPD. Next slide.

And a very important point is we're asking them how their physical activity is impaired. And this question comes right out of a National Health Interview Survey question, which is data which is gathered across the United States. And, in this case, we're using the question in a subset of Veterans and we're gathering data about their exposures and so we can start to build associations between exposures and difficulty performing these activities, like walking, running, and walking up steps.

You'll see the individual can actually report why they're having trouble with these activities and, as is typical of military service, back, neck problems, knee problems are quite high. But, for participants, we're also seeing the lung and breathing problems reported, which is a major focus of this effort.

Again, we're going to take a break at this point for any questions.

DENISE KING: And we must have a sleepy Friday crew here. No questions as of right now. Actually, that's not true. I do have a question that's coming in here. Our question is has anyone done a crosswalk between the DoD post-deployment health assessment forms, where there are exposure questions, and the registry, to see if Veterans with exposure are enrolling and by what percentage?

PAUL CIMINERA: That particular crosswalk, we have not done. I can tell you, within the Office of Public Health, we have a number of activities to investigate this issue and one of those is a randomized sample population study of those who've deployed. And it's complete and we're publishing papers on it. there was one today on sexual trauma, I think. And we've published on respiratory.

But the exposure questions it uses are basically the same questions that DoD has used in their health reassessment. They tend to be very general questions, In order to develop this questionnaire, we had a work group with DoD and VA subject matter experts and then it went to a round of two public comment periods in the federal register and we had external scientists provide input. So the questions in this registry are much more detailed and it goes into the activities people did. And so I think, as a broad look at that kind of time series, it could be done but there was a need for much more in depth information.

OK, so the next slide here, we're actually showing the data we're essentially gathering in the CEW, based on this TIU CPRS note template. And you'll see there's kind of a steady state of just a couple per week and that was basically during the pilot period. And then there's a couple month period where the online registry was released, but we were in a holding pattern with releasing a CPRS patch because everybody was behind the ICD9 10 patches and nothing could get released until they went out. So at the end of about Thanksgiving time last year, we did release the patch and then the facilities began using this note template within more facilities, more than just the three pilot sites. And the next slide, please.

So within that note, the clinician provider can actually tell us what the chief complaint is. Within the questionnaire that we give the Veteran and the self entered Veteran data, they do tell us some of their concerns but, when you're actually in front of a clinician, the actual chief complaint may be different, so we're monitoring that and you'll see that respiratory issues, the first two are shortness of breath and runny nose, are high on the list. And, surprisingly, cancer is number 12, because we do have a lot of Veterans come to us who are concerned about cancer effects. Next slide, please.

We're coming to a close here but I do want to talk a little bit about the data uses. I mentioned the two public reports and I just showed you some of the more internal reports we're looking at in the clinical side. But this data is available to VA researchers and for program improvement and public health. We really do actively engage researchers to look at many of these elements that we're collecting, because a registry is really what we call a hypothesis generating. So we're getting a sense of some issues but we then need to do follow on research to confirm and provide some stronger evidence behind these things.

We have a VA DoD work group, which has contributed to the two public reports so that, when we do report on this data, which does include active duty service members, we're using similar approaches and standardized metrics. We've already shared the data with DoD and we share it periodically, all the DoD folks who have completed these questionnaires. And we've also shared the data with the DMDC, which is the group that keeps track of where people deployed. This registry is the first time that individuals are actually seeing that data and we offer them the ability to tell us if it's correct or not, because it was gathered in a wartime setting and so we do know that there's limitations and errors. And we're asking them to verify that and we're feeding that back to DoD so that they can improve their programs.

We're also sharing it with VBA on a monthly basis and they've created a dashboard to look at

those who participated and to see what claims they may have and improve their claims process. And then, finally, we're working to share it with the Institute of Medicine. I mentioned they're going to be doing some research and providing recommendations and we're going to share with them the de-identified data, so they can help us optimize this registry. The next slide, please.

This is just to provide you some background of what the Institute of Medicine is doing. They formed a committee and they are meeting and they're analyzing this registry and the issue. And we look forward to some recommendations from them in about a year and a half to two years. And then it'll be basically a cyclic process, where we want to improve this registry and we want to monitor these people over time. And so there will most likely be further assessments to see how they're doing. And slide 22, please.

So I had mentioned that, right now today, as of last night, we actually took the Veteran's side of the registry and put it in maintenance mode. The reason is we're working through that transition to more formal OINP involvement and they're building a different back end database and improving some of the capabilities that VA staff will have to work with this data.

In follow on peers, what we really want to do is link this in so, on the Veterans' side, they can, using online capabilities, schedule that evaluation, if they desire one. We're finding that about 60% of people are saying that they would be interested in talking with a provider but such a very small amount are actually coming through and having those evaluations and when we've done some focus groups, people are expecting a little bit more active outreach from VA to get them into the door. And I think one way we can improve upon that is by linking and scheduling and linking Veterans with the facility which they would like to be seen at. As I mentioned in the registries, these folks may not be enrolled and so we really don't know what facility they would want to come to. So we really need that capability to allow them to select what facility they would like to come to and then look at the availability of appointments and establish that communication with the local facility and track that through. Next slide, please.

We have a lot of resources. Here's some links. I mentioned the YouTube video, we have newsletters and we have fact sheets for Veterans and, on the next slide, you'll see the resources we have for staff. Actually, with DoD, we've had three annual symposiums and, just recently, a textbook was published, based on our first symposium. That's about 26 chapters and so it's very detailed for clinical staff. We also have some webinars for the staff to get them up to speed with the registry and with the issue. And some of the VA only links are at the

bottom of this screen. And slide 25, please.

With that, open for your questions.

DENISE KING: Excellent. We definitely have a few questions popping in here. So I'll read the first one from Douglas, who says he dialed in late but he wondered is there are physical exam component? I would told this wasn't part of the profits and I'm just following up.

PAUL CIMINERA: Right, it's optional. And that was really dependent on the Veteran. Do they feel that they have a symptom or an issue that they would like to have evaluated? And that is also free, no cost, as part of the registry eligibility. They also may just want to talk to somebody in person about this, so that's also a common reason why people may want to participate in that manner.

DENISE KING: Excellent. Thank you. And our next question is from Michelle. Michelle wants to know how is the VA notified a patient wants follow up and is there a way for us-- i.e., a VA provider-- to see the list so we can contact Veterans?

PAUL CIMINERA: OK, excellent question. So that's part of this new capability, where staff will be able to log in and look at Veterans in their catchment, so to speak, by zip or by state and see who has completed the questionnaire and whether or not they want to be seen. And then they can do proactive steps to go out to get those folks. As I mentioned, many of these folks are not enrolled. So we don't really know which location they would like to be seen at and we've done some pilots where sites reached out to people to see if they wanted to be brought in and that type of thing.

I just want to mention that, within this app, it's a web app, there's quite a lot of health communication and information for the Veterans and Service members that says that this is really not a way to get care for acute conditions. And so we have a pop up box that they have to click OK so that they realize that. This is to gather data and then to evaluate things, but not for acute care.

DENISE KING: Excellent. Thank you for that. And we have a question here, do you have an idea of the number of folks that have received a registry evaluation but failed to complete the questionnaire?

PAUL CIMINERA: One of the limitations, as I said, with the old way of doing business, we didn't really have ways to capture that but we do have ways to capture that now. So we have an internal report, where

we're looking at how many people actually completed that in person template but haven't completed the questionnaire. And so this could be an indication that people are having trouble with the questionnaire, they may be having trouble with the internet access-- although we've come up with lists of resources where they could get access to the internet, like at the VA Education Center-- but we do know there are those issues and, working with the facilities, we're looking at ways to follow up on those folks.

DENISE KING: Excellent. And that is all of the questions that I see. Nope, here we go. Question, even if the Vet has an issue and is enrolled in VA health care, what happens if their issue is related, so basically everything has been done medically with no help.

PAUL CIMINERA: Well, that's kind of a hypothetical, so I think we'd want to look at the particular case and the resources available to them and see where to go next.

DENISE KING: Excellent. And let's just give it one more minute, to see if anyone has any last minute questions. While we're waiting on that, in the chat box, there is a link to download slides, if you want a copy of those slides. And I don't see anyone else typing but if you have any questions, please-- Every time I say that, something pops up. Have you received any feedback from providers about the level of Veterans' knowledge about the registry? For example, do they understand what the registry is and how it might help them or are they a blank slate?

PAUL CIMINERA: So there was a small group initiative that Southern New York Medical region had brought in a few folks. As a performance improvement, program they asked us to tell them the names of all the Veterans in their area who have at least started the questionnaire. So they've consented to be in the registry but they either completed or not completed, and then they went out and invited them to be part of a small group to discuss those types of issues. So we do have a nice little report on that.

I think we did a good job, I think, for the most part, explaining to people what the registry is and the purpose. We certainly wanted to make sure people weren't misled, that is required for a compensation. With the other registries, there tends to be this incorrect notion that you have to become part of the registry if you want to do a compensation claim, but we made it very clear in many places that that's not the case. So, I think we manage that issue.

I think the only issue that we really need to focus now on is this issue where, although we're saying that they need to take positive steps to schedule an evaluation, there's a number of individuals who are saying oh, I was expecting VA to call me. So we do send a participation

letter to every single individual who completed the questionnaire. As part of the questionnaire, we ask them how to contact them, we get their address. So we've mailed over 40,000 of those out and, in there, there's a fact sheet-- next steps that they should take should they want an evaluation. So even with that, we're still finding people who are saying I kind of expected VA to contact me.

DENISE KING: Excellent. And We have a lot of people thanking you for your time today, Dr. Ciminera, and just want to remind everybody that we will be sending a survey to you, that will give us some feedback on what you thought of the presentation today, as well as, if you have any topics that you'd like us to cover in future discussion series. And it is just about a quarter before the hour, so I'm sure everyone will like their 15 minutes on this gorgeous day here on the east coast.

So, again, thank you so much for your time today and we'll call that a wrap. Next month's presentation is September 25th on the immunization campaign and we hope you'll join us then. Thank you all so much.