Title VI Webinar  
Recognition and Diagnosis of Dementia  
January 10, 2018  
Speaker: Blythe Winchester, MD, MPH, Eastern Band of Cherokee Indians

Operator: Welcome and thank you for standing by. I would like to remind all parties that your lines have been placed on listen-only until the question and answer portion of today's conference. At that time, if you're wishing to ask a question, please press star followed by one on the keypad of your telephone and please be sure that your telephone is unmuted and clearly record your name at the prompt so that your question may be introduced. Today's conference is being recorded. If you should have any objection, you may disconnect at this time. It is now my pleasure to turn the call over to Ms. Tara Nokelby. Thank you, ma'am. You may begin.

Tara Nokelby: Good morning! Or I guess afternoon. Sorry, I am based in Alaska, so it's still morning here. As you noticed, we are having some technical difficulties. I do want to keep going with the webinar. So, I am going to--what I'm going to do is if everyone could please put their email address in the chat, I will email you the presentation right now. I'll have the slides begin and then I just wanted to make sure you guys had something visual. So, again if you want to go in the chat on WebEx, if you just want to put in your email address down there, I will get that to you as soon as possible. Today's webinar will be on the recognition and diagnosis of dementia, and we will have our speaker, Blythe Winchester from the Cherokee Indian Hospital. This presentation will be recorded and will be posted on Older Indians at a later date as well. There will also be a question-and-answer session at the end of the presentation. At that time, please press star one to open up your phone line. So, again it'll just be lecture and then if you would like to have the presentation to follow along, please also just put your email address in the chat and I will send that to you right now. At this time, I will turn over to Blythe. Thank you so much for your patience you guys. Thank you.

Blythe Winchester: Thank you so much. I am so sorry for all of you out there who just have to depend on my voice and have no, you know, excellent visual slides to accompany me. I will try to be as entertaining as possible. For anybody who doesn't know me, I am Blythe Winchester. I am a full-time practicing geriatrician in my own community for the Eastern Band of Cherokee Indians. I am also the certified medical director of our tribal skill nursing facility, and I serve as a Chief Clinical Consultant for IHS in Geriatrics and Palliative Care. Because we've lost a few minutes, I apologize. You're going to have to hold on to your bloomers because I'll be going kind of quickly to just make sure that I get through stuff. I want you to be able to understand steps and workup for dementia in some basic ways to test for cognitive impairment dementia, and then recognize and understand some barriers in the diagnosis. I always tell people to kind of ask themselves, you know right now at this point in time, if you can tell the difference between Alzheimer's and dementia. It's one of the most common questions that I get from family members, and throughout this presentation, just as an FYI, I'll be going back and forth from saying dementia and neurocognitive disorders. The DSM-5 has updated the terminology now to be neurocognitive disorders, which in a way is good, since dementia means "going out of your mind" or "madness". So, if I say neurocognitive disorder, or NCD, I'm just referring to dementia,
which is a huge category, which includes Alzheimer's disease but includes several other types of
dementia as well. And then how many of you right now feel comfortable with doing any kind of
testing or assessments for neurocognitive disorders, and then how about diagnosing it? I don't
know how many of you are in that realm, but a lot of times we already know from being familiar
with some people who has dementia, especially if we have known them over time. So, for you it
may not be diagnosing but definitely recognizing and being pretty certain that somebody has
that. Seventy-two million older adults will be sixty-five and older by 2030. I call this the "silver
tsunami" because I love that term, and, for me, it makes me really excited about how many
elders there will be around. Unfortunately, that also means that it appears we're going to have
also a huge increase in the number of people who have neurocognitive disorders. Every 68
seconds someone in this country transitions from mild cognitive impairment to dementia, which
I'll talk about. And this disease now costs more to us in our economy than cancer or
cardiovascular disease, and over 90% of patients with Alzheimer's eventually have what we call
behavioral and psychological symptoms of dementia, whether that's wondering, combativeness,
resistance to care. All of those things are included in that sexy term of BPSD.

I wanted to tell you about just this quick study. Because it talks about dementia incidence among
minority groups. It's Kaiser data that comes from 2000 to 2013. So, it is unique to that data, it's
members enrolled who are 60 years and older as of 1996. They are similar to the general
population of seniors in Northern California. So, it is sort of specific to that area, but they do
have chronic conditions otherwise and that sort of thing, which makes it an interesting study
because they didn't just pick healthy elders to follow. And they didn't have a dementia diagnosis
in 2000, and they tracked the incident cases over several years. It's not a population-based study
and they did self-identify American Indian or Alaska Native, so there's a possibility of some
introduction of error depending on how you attribute tribal people. If self-identification, you feel,
is something that's appropriate for that, which I do. So, this kind of shows you that among self-
identified American Indians and Alaska Natives, the incidence of dementia was second only to
that among African Americans. This is important because it's one of the first studies to show
that--in conflict with other data that we've seen that they expect the incidence is lower in our
population--this shows that it is higher. And I apologize that you can't see the slide right now that
lays out the differences among different groups, but when you get that I encourage you to look at
it. It helps me say "Look, I need more funding and resources across Indian Country because of
some information that this showed." So, it is helpful.

We still have a huge problem with under-diagnosis and diagnosis delivery. There was a John
Hopkins study about this. And, unfortunately, it says that only 44% of the participants with
probable dementia or their caregivers even received the diagnosis of dementia. So, even when
people are looking for it or people are aware of it, they're not actually communicating, "Hey, this
is what's happening to you." And this is consistent with other studies that have shown similar to
that same figure. The problem with this, you can imagine, if you don't have the diagnosis, but
you likely have dementia, it can cause a lot of problems. People can't prepare, you can't know
how to handle certain situations, avoid crises, avoid so many ER and inpatient hospitalizations,
avoid non-compliance with treatment. There's a billion reasons why you need the diagnosis, but
what was shown in the data is that you're also more likely to engage in unsafe behaviors if you
haven't been given the diagnosis. Unsafe behaviors being like driving when you otherwise
shouldn't be. I did a survey of providers here a few years back because I'm asking them what
makes them hesitant to diagnose dementia or do an evaluation for that. And what you could expect, if you probably guessed like Family Feud-style answers to this question, you'd probably get it right. Most of the providers said they just don't have enough experience with diagnosing it or with dementia, or they're worried about the implications of actually giving somebody that diagnosis, or they're unsure of the management after diagnosis, not enough time in our visits to do that. And when I surveyed them, there were actually a couple people who felt confident in assessing and diagnosing it.

I include the ten warning signs in almost all my talks about neurocognitive disorders just because I use it as a community education piece, and I think it's an easy way to kind of look into what would be helpful that you're looking for, or to encourage community members to be looking for. And they include: confusion with time or place; memory loss that affects daily life, which is very important to distinguish from mild cognitive impairment; trouble with completing daily tasks, especially things that they are very used to doing and didn't have problems with before; trouble with visual images or spatial relationships, so they can't even see or get to that pen or coffee cup that's right in front of them; difficulty with planning or solving problems; new problems with words, so they may be able to describe something but they can't just find that word they're looking for it; they withdraw from usual activities; they may misplace things, especially in weird places; they may have changes in mood or personality; and then poor judgement or decision making. And those ten warning signs you can find all over the Alzheimer's Association.

The next thing that I have here is the criteria for dementia in the DSM-5 versus the DSM-4. And if you don't know what those are, those are kind of the mental health classifications of different diagnoses and their criteria. So, what the difference is DSM-4 the criteria for it, they'd have memory impairment and then you would have an impairment in at least one of the following areas, whether it was language, motor coordination, sensory processing, or executive functioning. And executive functioning is just the ability to multi-task, that you can do multiple things at one time. And the deficits each cause impairment, and that's what has changed in the 5 criteria is that it is affecting people on a regular basis in independence and everyday activities. It also mentions in the DSM-5 criteria that it doesn't occur in the context of a delirium, because it's important to distinguish that. And they're not explained by any other reversible disorders either, like depression or any other mental health disorders. I like to encourage people, when we're thinking about patients who may be affected by these disorders in tribal communities, that you really want to envelop them and show them some kind of support and community support and encouraging them to get evaluated. You cannot expect people to seek out help or an evaluation on their own for neurocognitive disorders. There's a lot of different reasons for this. One of them being if they have progressed, they may not even have the insight to be aware that they have a memory issue or dementia. I can't tell you how many people I've seen who insist that there's nothing wrong with their memory, and it's not because they're just fighting a diagnosis, which sometimes happens too, but it's because they truly are not aware that there's an issue with their memory. So, I think it's important in tribal communities to try to help everybody be aware of what the signs are and any level of discipline to be looking out for that. I don't care if it's transit drivers, grocery store cashiers. I think everybody should be kind of looking out for these signs and encouraging people to get evaluations if they see something markedly different or concerning.
We are really focusing on timely detection, and an early actionable diagnosis is what we use to describe that. And it's not because it's going to cure this disease. We all know there is no cure for dementia. But if we can get people an early diagnosis, we know we can improve their quality of life and help them maintain independence. We also provide better management of other medical problems. Sometimes I get consults on people now, because we've done so much training here, who are just no matter what's happening their management of their diabetes just goes up and down. Sometimes they're good, sometimes they're bad. And nobody can figure out why. And it turns out they have a pretty significant neurocognitive disorder, so they can't manage all their insulins and Accu-checks and all this stuff. We know that we can reduce that crisis-driven use of healthcare resources if people are prepared and educated and have resources otherwise. And, obviously, if you find out earlier that something is wrong, it's the earlier that you can look for something reversible. If they have a vitamin B-12 deficiency, and you can identify that as the component or the cause for their cognitive problems, well you can treat that pretty easy. We just supplement, and it can definitely make a huge difference. Same with other problems. If they have something wrong with their thyroid. If it is sugar-related or if it's more of a mood problem like depression. I see lots of people who actually have not well-controlled depressive symptoms and that is definitely causing cognitive issues. I see people with anxiety or with multiple stressors at home, grandparents caring for grandchildren and the children are having issues with opioids. And this is causing so much distraction and drain for their cognition that they can have issues with that. But if we work in that from a different standpoint, we can help it.

So, whether it's cognitive impairment or dementia, we definitely want to diagnose it early. I have a nice little picture graph that you can look at that talks about the difference between mild cognitive impairment, dementia, and then kind of this pre-clinical phase where we know that there's something going on--and I shouldn't say we, it's more of the person being aware that something different--but you may not even pick something up on tests. And from a research standpoint there's a lot going on in trying to evaluate this further and see if there's something that can be done or managed in that pre-clinical stage whether it has to do with diet or medication or exercise or gene testing or brain imaging, there's lots of people looking at this pre-clinical phase, which we usually see lasts years. And trying to figure out what can we do at this point even earlier to try to address this. In the workup of neurocognitive disorders, getting the history and information from the person and the family is so important. So, I'll talk about the other components of that. I use an ADH which is an Alzheimer's disease questionnaire for family members to help get information that I'm specifically looking for. It's been validated, and I really like it as an assessment to be used when family is with the person and I don't have to try to chase somebody down later. In general, you're first tests or exercises that you're looking at, there's a million different options. Most of the providers here or nurses use the mini-cog because it's very straightforward, just with recall and a clock draw. There's the GPCOG that can be used to. In my clinic, we use a modified SLUMS which you'll see in the handout because I'm a geriatrician I want to go ahead and start with a higher-level test. You can do that as well. So, if you guys are used to using something else, like the MoCA or the SLUM, you can continue using that as your initial test. It's just that it takes a little bit longer. We want to know about memory problems, how long it's been there, the severity of it, psychosocial issues, other medical problems, if there are any of those BPSD's I talked about. Do they have hallucinations? And I know sometimes people get uncomfortable asking this questions, thinking you just state that it's a part of the evaluation for this for everybody. I'll just ask people if they see anything that's not there, like shadows or
figures or children or do they hear anything that's not there, like crickets or train whistles, and that sort of thing. I think when you give them examples that also helps them know you're not talking about hallucinations where they're being told to kill somebody, which I think is a lot of time what people think about, so they're reluctant or they just get upset if you're asking them about that. We also want to know about traumatic brain injury, and I'm less surprised now but at first when I was asking this question of my patients, I was very surprised by how many of them have experienced a traumatic brain injury in the past whether it's from playing sports and getting a concussion or being in a car wreck or being in fights and hit with a baseball bat or domestic violence. And this is actually very important to ask about. And also education level, you want to know in order to make sure that you're doing an assessment that is appropriate for them. And sometimes we find out that somebody is illiterate, and so that does change the assessment that you're doing. You want to know about their vision and hearing. How well they can participate in their ADLs, those Activities of Daily Living and Instrumental ADLs. Finances is a part of that, so if they're paying bills and how compliant they are with their medications. I always ask about family history of neurocognitive disorders because that's very important to know in terms of increased risk or whether they've had experience with a family member who has had a cognitive disorder is also the reason I ask about that. And then we talk about mental health in terms of history of anxiety, depression, if they have schizophrenia and they've been on anti-psychotics for a very long time. Sometimes we'll see that there are problems with cognition related to that, although you won't find that necessarily in data. And then performing an exam obviously is something that I'm doing in my assessment.

One of the slides you have shows you the mini-COG just to give you an example. And some of them will have different words that you're having the person recall. You're basically just listing three words and you're saying "Listen carefully. And repeat these words after me." And the ones that I list in my example are apple, watch, and penny--pretty common stuff, although you can adjust those terms to be something that's more relevant to your area if you want to do that, or if watches are not something that any of your elders use or could relate to. And I shouldn't say just elders because obviously I end up doing these evals on younger people. And then you do the clock draw test, which you can give them a sheet that already has the clock circle on it. They don't have to draw the circle themselves. And then you're instructing them to fill in the numbers just like they would look on a clock face, and afterwards you'll tell them what time to fill in. And after they've filled in the numbers, I tell them to put it at ten 'til eleven, so they have to draw those hands the right way and put them to the correct numbers. And after you've done the clock draw, you ask them to repeat those three words that you just gave them. And so then, I also put instructions on there for how you score it, but I won't describe that to you because that seems like it would be super boring to me. The GPCOG, I give an example on here. The reason I don't use this is because the first question in it is giving someone a name and an address and have them repeat it and then you go through other stuff. Then, you ask them for that address again. There's been some information and research that certain tribal populations may not do well with that address part of that because we're just not inclined to remember that or be used to that sort of memorization of something like an address.

I put some examples in here of clock draws so that you can see what they look like, and some of them are abnormal just to give you an example of what they look like. I have, in terms of the checklist, other stuff including lab tests that you might do to evaluate for reversible causes. Head
imaging, people will still think that this is a straight-forward requirement and it's not. You don't have to do CT or MRI on everybody. I'm typically using this on people who have something wrong with their neurological exam I can't explain, or they have a really fast onset dementia or they're very young or there's something else that just seems off about the whole presentation. There are also tests you can use when people are illiterate or have other considerations, and I have that in a slide. I also showed you an example of that modified SLUMS that I use so that you can see what that looks like. What I mainly did is just change the story that's at the end. There was a story before that was super boring about Jack and a stockbroker, and he married Jill and she stopped working to raise kids. And it's just a super boring story and isn't relevant. So, I changed that, and I am hearing that there are other places that are also doing the same thing. Luckily, this modified SLUMS is being studied at the University of Washington, so we can say whether it is a validated test or not because that's one of the problems I have is that I just use it and made it up, and I don't have it tested. [laughter] I put an example of TRAILS testing on there. You can see that. I use that assessment when people are driving and I'm unsure about whether they should be doing this still. I went to a lecture at the University of Wisconsin Medical School. It was their dementia update, and this really smart guy was talking about driving evals, and I realized that I'm letting people drive longer than I should with neurocognitive disorders. This is a very difficult area in terms of driving, especially when you're in a rural area like I am here and there are so many issues with people trying to get around. So, I have a lot of struggle and difficulty in determining how am I going to tell these people who are earlier on in their dementia that they can't be driving anymore. It's a very difficult situation. I put a slide in about mild cognitive impairment because they're gonna have noticeable problems with memory or with other things. But they don't interfere with daily life, and it usually does show up on testing is what I have found. Some of them will become demented and some of them won't. There used to be this one-third rule that some of them stay the same, some of them improve, and some of them will progress to dementia, but I use it if I find mild cognitive impairment as a time to talk about any risk factors they have--if they're smoking, if they have uncontrolled diabetes, if they're not exercising. I think it's a great opportunity to talk about all that. If you find that somebody has dementia, and you want to guess, guess Alzheimer's because that's about 60 to 80% of the ones that occur. Vascular neurocognitive disorders are on the rise. And if you, if they have vascular and they also seem like they have Alzheimer's to me, then I'll say that it's mixed, which meets the criteria that I encourage people and the providers here that if someone is having hallucinations, if they have Parkinson's type stuff, like a tremor, speech problems or movement issues, you probably need some help in terms of a specialist who assists with making the correct diagnosis.

I have a slide on here that shows you all the different types of dementia and characteristics of those so that you can look through that and kind of review what that is and how they are different. I diagnose all of these different types and I think specialists come into play for certain when you think there may be something rapidly progressive to try to figure what's causing that. And then, sometimes with the frontal temporal and Louis body dementias because they have different characteristics and are also going to be treated differently sometimes. I included Teepa Snow's umbrella, which if you've heard a talk from me, I talk about this almost every time. And I talk about Teepa Snow because if you want to do a training or look at video from someone who does an excellent job helping you with day-to-day management of different behaviors in neurocognitive disorders, she is the one to look at. She has a great website and lots of free online resources. So, if you haven't checked her out, you really should. It's T-E-E-P-A and then Snow,
just like snow falling. There is a slide in here on vascular dementia because what I've seen before is that the rates were drastically under-reported I think. Now, it is on the rise, so I think people are starting to realize how much of it there is out there. In our tribal populations, I think it's much higher than what is being reported. And it makes sense because we have higher rates of heart disease and stroke, of diabetes, of smoking. So, when you're thinking about all these risk factors, it makes sense that we have more vascular dementia, although it's terrible. When I'm talking to people about making this diagnosis so that this may be something that's going on and that I need to bring them back for an eval at another time because I might just be talking to them about an issue that they have, and then I figure out while talking to them or questioning them that I am concerned that dementia may be there. Then, I tell them about the importance of if there's an issue why we need to find it now. If they do meet the criteria for diagnosis, I want to make sure that their family knows as well. So, I'll ask them for permission if nobody is there with them to share that with their primary contact who is listed in our medical information. But I do inform them directly that this is the diagnosis. And I'm making eye contact and I'm explaining it in plain language to them. I'm not just looking at anybody else in the room and pretending that that person is not there. And even though I may have different priorities for what's most important to do first, they may have a concern that I need to address first. So, think that's really important.

I try to get family involved as much as possible, but I have such a varying scale of participation by family members. I mean I have some people that have DFS involved in their care at some point because there is no family who can help to the family members who are super-involved and are online all the time and need some involvement or assignment to help them know what can they do because they are very motivated. I tell people if you're informing people about your concerns that they have dementia that you don't just kind of give a whole bunch of instructions at one time. You don't want to destroy their hope. I have had a few people who have received a diagnosis and got very depressed after that. So, I do offer to people, "Hey, we have behavioral health. If you find that you're overwhelmed by finding out this information, or you're concerned, then let us know. We'll help you out with that." Once somebody had been diagnosed, I have to be very careful and monitor them much more closely for being targets of scams or being targets of family members or other community members looking to take advantage of them because I've had people who have dementia they're still driving, people force them to go to an ATM to withdraw money for them, they don't think it's any big deal because the person's told them that their child is dying and they need money. So, they've become huge targets in your area once anybody knows that they may have dementia or neurocognitive disorder. The number one most important thing when I'm talking to people is I want them to know that they are still productive. They have a purpose. There is a role for this person. So, sometimes if I have someone who's really getting down about the situation, what I find is that they are socially isolating themselves and they're not participating in activities and they don't feel like they're doing anything anymore. And they have to figure out, I try to help them to determine what can they do at their current level of functioning that's gonna help them feel productive and have a purpose. And there's been a wide variety of things that I've done in that area, whether it's people going to their local senior center and volunteering, helping out with activities, going and volunteering at other places, all the way to my very severely demented residents on my memory care unit who we just have to adjust their activities. And I train staff about that. They may only be able to sort socks or love their baby doll. But still you want them to feel like there is a purpose. When one of my residents has that doll, she's presenting it to other people and then taking it back from them. That, in and of
If you are not sure, sometimes a lot of people who kind of evaluate somebody and they're like, "I don't really know. I mean maybe." I say you can always re-test or eval in three to six months. See if the score that you got on whatever test that you did has changed. If anything else has changed about their situation, you can try to get more information from family or other people who are associated with them if you have that permission. And then make sure you looked at reversible causes because a lot of times people will tell me they're just not sure because things seem to be inconsistent when they're talking to the person. And I'll say, "Make sure that they've had all of this lab work recently, and there's not been any med changes." All that kind of stuff. Sometimes we'll have scores change like crazy on the SLUMS. So, say I get one one time and it was just fine. You know they're like 28, and then all of a sudden it drops to a 20. There's definitely something going on, either I've overlooked a reversible cause or they're under a great deal of stress. Something horrible has happened. They've developed some other issue in the meantime. There's been a med change, which I've had people just being on antihistamines and when we take them off, they're cognition totally reverses. So, you just have to re-look at the whole picture and figure out what's going on. I do have people who when I ask them if they want to know, and they say yes, and I say okay, "You have Alzheimer's disease." And they refuse to accept that. And it's very difficult when that happens. Obviously, we try to get support around that person if I can talk to a family member, but I do want to know why that is happening. Is it because they're so far progressed that their insight and judgement is impaired, and they can't accept that because they think their memory is normal? Are they afraid? I think nine times out of ten it's one of those two things to be honest. So, I tell people that you are very valuable, every single person anywhere is important and valuable. And seeing what's going on with people, looking for those ten signs, being aware if someone seems like they have cognitive issues. I have people who see elders, who get lost in the parking lot and they notify me about that because they know I'm the person who deals with that. I think if all of us take that approach when we're watching and monitoring and keeping an eye out to help all of our fellow people who may have cognitive issues. That's how we're going to help increase the diagnosis that we have. You do want to know about your resources in your area, especially if there is specialty care, whether it's neurologists or geriatricians. Know who you can refer to, especially if you have primary care providers who are super-uncomfortable with making that diagnosis.

I did want to mention to you guys, you'll see this in the slides, that there's gonna be a webinar on February 5th, and if you're interested I put some contact information in there. We're trying to get input from a wide variety of audiences who are involved in Indian Country and the care of American Indians and Alaska Natives. We want thoughts and perspectives about dementia, neurocognitive disorders in your communities, what the needs are, what the issues are, what the barriers are, what could help you. I am part of a leadership committee for a roadmap that's a cooperation between CDC and the Alzheimer's Association. This document that we're producing, we want to make sure it's going to be helpful to the largest number of people, and we want your perspective about the current state of dementia and what you need to help you. And so, please if that's something that you would be interested in or you feel like you could provide some valuable input, then look into that webinar. You can always use that contact information that I have here to find out if it would be appropriate for you to join if you're not sure or what you might get out
of it. We definitely want that input. I'll provide more information about the roadmap on that call. And we have another presenter, but the meat of it is really trying to get information from everybody. I still wanted to make sure that there's a few minutes for questions. So, even though I have a case at the end of this, I'm not going to go over that right now. I just want to make sure, and it's probably going to be difficult, I don't know if we can patch people in for audio.

**Tara Nokelby:** We definitely can. If you're interested in verbalizing a question, please press star one, and the operator can patch your line through. I also did send the PowerPoint presentation to all the folks that sent their email address. I also sent a blast, so you all should have it in your inbox. If not, please feel free to email me. And again, any questions please press star one and the operator can patch you through.

**Blythe Winchester:** And if you review the slides, if you actually have a copy or you're looking at them, and then you have a question about something that you couldn't see at the time, then please ask me about that as well.

**Tara Nokelby:** Questions coming through?

**Operator:** At this time, we're showing no questions.

**Tara Nokelby:** Thank you. Alright, so if we don't have any questions, we can wrap up. Again, I apologize so much for the technical difficulties. We definitely will have everything fixed for next week's webinar. And, hopefully, as long as Blythe is available, hopefully, we can do this webinar again at a later date just to make sure that everyone gets that information for you. If you have any questions, please feel free to email me. If you did not get the PowerPoint, please feel free to email me. It's Tara.Nokelby@teyaservices.com. And Blythe, thank you again so much for being such a great sport.

**Blythe Winchester:** Oh, no problem. And I usually put my email on the last slide. But on webinars, I'll usually just put it in the chat box, so if anybody needs to contact me after this, feel free to give them my email and I'll answer any additional questions or provide any other resources.

**Tara Nokelby:** Perfect, thank you.

**Blythe Winchester:** Thanks.

**Tara Nokelby:** Thank you. Alright, thank you everyone. And we'll see you next week.

**Operator:** This does conclude today's conference. Thank you so much for joining. You may disconnect at this time.