All right, I think we're going to launch into our second presentation. Take a couple of swigs of the hot tea here and I'm ready to roll. Guess they don't give a lot of transition time between some of these.

Hopefully we'll get off to a slow start and people will roll in a little bit. Eric Cahill and I are here to talk to you today about implementing a standard assessment plan program wide.

Some of the benefits and barriers to doing that. So we're going to be talking both about benefits of consistency, so in other words doing the same thing throughout your program, whatever you choose to use.

We're also going to be talking about what we believe is the value of normed reference assessments as part of that, and we'll also talk a bit about our project which is called odyssey, which mainly I'm going to hand over to Eric for. I'm Allison Setty and I'm at the University of Colorado at Boulder if you're new in the room and I'm also from add -- odyssey. With me today is Eric Cahill from the Centers for Disease Control.

Let's start out with the EHDI guidelines for assessment because this is in sense what drove some of our decisions is the guidelines that are very well respected and promulgated.

The guidelines say children who are deaf or hard of hearing should have their hearing monitored every six months. You can add other things in for sure, checklists or whatnot, but should include standardized assessments that are norm referenced. So we're going to be talk a bit about the benefits to that today. And we are extending these guidelines a little bit by saying not just everybody picking their own standardized norm reference assessment, but getting on the same page within your program and coming to an agreement about what you're going to use has a lot of benefits. That can be done under the structure of odyssey which is our center and we would love that. But it can be done regardless of whether you're participating in odyssey or not.

And I think the benefits will be the same to you. So the added benefit of being part of odyssey is not only would you be using the same assessments program wise, but you'd be helping us get to the goal of at least using a same set nationwide which has great benefits for understanding better language outcomes for kids who are deaf and hard of hearing. Our topics today, we're going to tell you a little bit about the CDC sponsored odyssey project that involves partnering with early intervention programs to implement this recommendation of a program-wide use of a consistent set of standardized norm-referenced assessments. And also has the goal of increasing our understanding of factors that impact outcomes for children who are deaf and hard of hearing by looking across programs and not just narrowly at one state or one program or people who show up to a study at a university. We are also going to release some results of interviews of our partners of using these common set of standardized assessments. You'll hear a little bit from them in some clips and we'll summarize that information for you. And we'll also talk a little bit about what some of the obstacles might be in doing this as well in ways that you might want to overcome those obstacles. Again many of these benefits we're going to talk about could be realized whether or not you have a program that's participating with our center. I'm going to turn it other to Eric -- over to Eric to tell you about the background of the CDC and looking at child outcomes.

>> Thank you, Allison. I'm Eric Cahill on the early hearing detection and intervention program at CDC. Let me say thank you for coming here today. This is an area that we've long been interested in as understanding the language, the developmental outcomes of children who are deaf or hard of hearing. It's not enough to just screen the infants. It's not enough to just do that diagnostic assessment and realize what their hearing level is. It's not enough to just enroll them in early intervention, but helping us to understand how those kids are doing, what is the end result of all of that 1-3-6 work. And then what do we mean by outcomes?

You hear a lot about well where are the kids at three years of age, where are the kids as they transition into preschool and kindergarten. Those outcomes help us to see again what is the end result of all of this work that we're all engaged in. We've done some, previously we had funded some CDC projects and research projects to show us that we could measure this, that it could work, we could get at what some of those outcomes are.

So that led us in the spring of 2020 to start noticing opportunity, odyssey is what we call it. And that gave us, that was our attempt to kind of operationalize what we had found in some of the research that we had supported. Four areas -- the captions covering it and I'm just drawing a blank. But we wanted to strengthen the capacity, the capacity to collect this outcomes data. We wanted to assess the relationship between the intervention that is provided and the outcomes that are realized because of that. And I'm going to focus on those three, we want to promote the best practices. Once we know what works, that's what we ought to promote. I used to work in a couple of different hospitals as a clinical audiologist, what's the best practice. And that's to drive what we ought to be doing.

So we didn't just wing it.

We developed a logic model and the logic model is a little more complex than this. We have short-term outcomes, we have kind of mid-range outcomes. But I really wanted to focus on the long-term outcomes. What did we want to accomplish at the end of this project? And those are both in bold there, we wanted our strategic partners, some of our national stakeholders, some of the program leaders in the states to have accurate and standardized surveillance data on the outcomes of children who are deaf or hard of hearing. If you were in the plenary this morning you heard MSHB Hersa has the desire to see where are the kids at as they reach that three year milestone. And we wanted to understand as well what are the factors that really impact the outcomes of children who are deaf or hard of hearing? In a session just earlier before this, right, the timing of that intervention, the 1-3-6 versus 1-2-3, those are important factors that go into what makes a successful outcome. How many times a week, how intense is the services that are provided, all of those questions, if we can understand better then we can help you all tailor those programs to better meet the needs of those kids. There's a couple other you'll see on there, a couple other long-term outcomes, those are a little more aspirational in nature.

This is a funded project with a beginning and an end, but we had long been interested in this and we will continue to be interested in understanding those outcomes. And so we are thinking beyond the scope of this project as well or beyond the time frames of this project as well. And I'm going to turn it back to Allison to talk a little bit more about odyssey specifically.

>> Great, so currently we have 17 programs participating with us across 15 states and some of you here in the room, thank you for joining us today. All of the programs are using agreed upon common set of standardized norm referenced assessments specifically the DAYC2 and McArthur. And some programs have chosen to do additional assessments, if they do we create databases of those assessments as well. And each of the instruments that are optional more than one program is using so we'll be able to combine too. Some of those assessments are the sky high, the little ears, the little ears is norm referenced, the sky high is not but a very good checklist to use with children who are deaf or hard of hearing. With odyssey, the way it works is the developmental assessments are completed by the interventionists in the program in conjunction with the family.

They send those results to us, we create the database. We score the assessments. I know everybody is thinking maybe this would be interesting to get involved with some of the services that we offer is that we'll score the assessments for you, we write up a written report of the child's results which we send back to you to share with the family. We have a graphic display of the developmental scores again to share with families. We create a database for each program, we provide the program back with a report each year about their children's levels and how those compare to the other programs participating in odyssey. And then we combine those data across the programs to look at larger health questions like questions does 1-2-3 result in better health outcomes than 1-3-6, et cetera. We interviewed some of the people in this room who are participating and asked them some questions about what did they feel were the benefits to using standardized assessments that are norm referenced and to having one set the entire program was using, that everybody was using the same thing. And then we also asked a bit about are their obstacles to doing that and what have you done to try to overcome those obstacles. So that's what I'm going to be sharing with you a bit about today. So the people who are participating were either program directors, supervisors, or lead interventionists in the programs that we're partnering with. We interviewed 21 different people across at that time we had 14 programs participating, we did this last summer. We've added a few programs since that time. So I'm going to let you hear what they have to say. And this is captioned, so people who are in the caption room, you could probably be better if you stop captioning. Uh-oh, we don't hear anything. I can't hear the sound thing because of the caption, I'm afraid it might be muted.

I'm going to move forward and then we'll hear back what people had to say. You'll hear it in their own words shortly.

So this is a word cloud. We generated transcripts from the interviews that we did and made a word cloud out of them. So you can kind of take a look at --

oh, it's on here. Let's see about this unduplicating thing.

We've got captioning back. So this is a word cloud that was generated from the interview transcripts that we did. Again what we're going to talk about is two things, what are the benefits of using a consistent set of assessments and what are the benefits of using norm-referenced assessments as well. Let's start with a very brief norm-referenced assessments. A norm-referenced test when it's developed is given to a lot of kids across the United States typically, like a representative sample. So hundreds of kids, maybe thousands of kids and the test is administered the same way you would administer it to your individual family and child and so norms are created so we now how a large group of typically developing kids does on a typical test. And you can compare your child's scores and how they did to this large group who are developing language typically. Some of the benefits people said about using the norm-referenced assessment. So tracking is essential, we have to track kids because language deprivation is a real thing and if we're not catching it at the early intervention level, the child is going to come into school disadvantaged. So some of the benefits that people report second-degree in addition to getting an age score which you do get from a norm-referenced assessment, you get an age equivalent score, you also get standard scores, percentile ranks, and unlike age scores, you can then objectively say whether the child is falling in the average range or not. With an age score, that gives you a benchmark, but let's say you have a 24 month old and they get a 21 month old age level. That's a little below their age. That might still be in the average range, there's a wide range of variability. And you really need those percentile ranks to know if the child is falling within that average range. That's really critical if you want to look program wide at accountability is really what you want to look at is how many of our kids are performing the way they should be compared to typical language development, how many are falling below that level, and that's what you can do when you're giving norm-referenced assessments that you really can't get with a checklist. Also it goes beyond checklists, it goes beyond anecdotal data. It allows you to compare children -- you can come up if you want to help. It compares children to their same-aged peers. It gives parents objective information.

You can objectively monitor growth and progress. Norms carry weight at the ISP table.

Especially at the transition to part B when a child may not be automatically eligible anymore because of their hearing differences, you need to come and show with percentile ranks and standard scores that the child does need resources and services to be successful. Let's talk now about not just norm-referenced assessments, but agreeing on something you're going to use program wide. Are we good to go? I'll back up to that in just a second. One of the benefits of consistency is no matter where you are in the state, having every family use the same tool is important because it puts everyone on the same page. If all of the staff are using the same tool, they can support each other. So if somebody has a question about how did you interpret this, or how did you ask a family this question, this person said this, do you think I should count it or not. If everybody is using the same thing, that collaboration can happen because everybody has the same experience and can share their knowledge about it. So let me pop back here and we're going to give our thing a go. I'm going to see if we can make this a little louder.

Thank you for your patience with that. Let's try to jump back. Good, we can watch it again because we haven't seen it enough. So let's get back to summarizing our benefits and again now we're talking about consistent use of a given assessment program wide. As you heard on the interview, using the same assessment allows you to compare apples to apples. I think one of the people made an excellent point saying one person gives a self one person gives a PLS. There we go. Using a consistent battery, so what I was saying different instruments, some are easier, some are more difficult. Some kids score higher just because of the nature of the test. So if you say like oh well I gave a DAYC when they were two but this person is going to give a McArthur when they're three, I can tell you their score is probably going to go down because the McArthur is more rigorous than the DAYC is. It's not saying the child is now worse, they're not. You've just chosen a more rigorous assessment. So that consistency is super important for looking at progress over time. And also looking across your program to identify strengths and challenges because if one person is doing one thing, somebody is doing something else, you can't combine two totally different tests to get an average. You have to be using the same thing to get a valid average. Another nice thing is that as one of the women mentioned, Nancy, is she uses the data she gets for funding to apply for grants, to appeal to donors, to report back to administrators. We have another program who's working with us who part of their strategic plan is to be looking at outcomes so they're presenting the information back to their board. Soda -- so data for funders, administrators, board members, improving your grant applications, and streamlining data collection if your state has any requirements under a House bill or Senate bill or kindergarten readiness initiative. All of those mandates require that you track kids progress and report it back to that entity that's monitoring that House bill or Senate bill and having this consistent set of assessments allows you to do that and if you are interested in partnering with odyssey, we can facilitate that data reporting back to those agencies or back to you and then you can give it to those agencies. And then the last piece is using the same assessment nationwide which is ultimately what our personal goal is. As one of the people said, this program meaning odyssey will give us really good data across the nation and we need to be monitoring our kids, seeing what's working, seeing what's not working, seeing where we need to pivot, and a collective effort in that regard is what's needed. So again working with either our program or having your own consistent assessment battery allows you to potentially compare the children in your program and their outcomes to national averages, being part of this collective group of odyssey helps us really improve the representativeness of the samples we look at. Again we're not just looking at kids who happen to live close to a good research facility and how are they doing or how are children in this kind of specific communication method doing. Because this is a very heterogeneous group of kids as you all know, in terms of choices families make for communication, for how much intervention they get, the families themselves, their characteristics are very diversediverse. So getting a large sample of kids is really critical to getting a full understanding of what puts some kids at more risk for language delay and what helps some children actually do better in terms of language outcomes. So I have just a couple more things to say about obstacles, so we'll be wrapping up in just a minute here. But one of the obstacles that we sometimes hear is somebody might be reluctant to give an assessment because they're not sure how to interpret the results or they're not sure how to use these results to help them develop their goals, or they don't want to discourage the family if maybe the results aren't as good as the family was hoping for.

And that one of the biggest things we hear is people say that takes time away from my intervention. So I just want to talk quickly about how to overcome some of those obstacles. One of the things of using, if everybody in the program is using the same assessment is people can interpret the results around interpreting goals. You can go to your administrator or supervisor and say we want personal prep around this topic.

If you're involved with odyssey, we provide consultation and training around that topic as well. In terms of sharing discouraging results, that's tough. But I think it's also important. It's important for parents to have clear and honest and accurate information. And they're going to get it sooner or later. They're going to go to school and these kids are going to be given standardized tests and parents are going to see these scores. It's never good, but it's also not good to get hit over the head with a big surprise when your child turns three and look back and say why did nobody tell me this before?

Parents have a right to know.

The other thing is even again you don't have to dwell on it.

You share the information, but then focus on progress over time rather than absolute levels. We don't have to focus on well, your child is six months behind.

But let's see what happens over the six months, do they make six months growth? That's good, that's great, that's what we want. Can they even make a little bit more to start closing the gap even better. And then if you use a multidomain assessment like the DAYC, maybe they're great with motor skills, even if their communication skills are a little behind. And that can be something to be focused on is these areas of strength that the child has. Also what you can't see there is I consider the communication matrix. So that's a great assessment for children who are either nonverbal, have significant global delays, so picking the right assessment can make a big difference too when it comes to results that might not be as positive as a family is hoping for. And then I'll just say a couple of words about taking time away from intervention. One of the quotes from one of our people is exactly what I believe, not that young therapists say this, but in general sometimes therapists will say, oh no, I've got to do therapy. I don't have time. I don't have time to do this testing. It's taking away time for my intervention. It's really not because it's part of the intervention. And I think that's a critical thing to understand is that assessment is part of your intervention and it can be a learning tool for the family, not just part of your intervention because we should be progress monitoring. But if you're involving the parent in the assessment, you're teaching them skills. You're teaching them how to observe their child, how to see little steps of progress, you're informing them about the developmental sequence. I remember when my kids were little and I was doing this play assessment with them that I had, and I didn't know a lot about play apparently because as I started reading these, I was like wow these little steps, I never thought of these. But it was great for me as a parent because I would go okay here's the next thing that I'm looking for, I'll encourage that. We'll encourage that kind of play because that's the next step. And that's what we're doing with intervention is helping parents know what comes next and giving them strategies of how to encourage that next step. And they're going to learn that through helping you with the information you need to get for these assessments. And it's also bringing them into the team, getting them familiar with the language of the assessment, the language of language. What's syntax, what are the pieces of language, what's receptive language, expressive language, what's the difference. Imitation versus spontaneous production.

All of this, they're going to hear all of this when it comes to meetings, and it lends to confusion when they don't have the vocabulary and the understanding. But by going through the assessment process with you, they're going to start learning the terms, learning the steps, and when they sit down at the table, they're going to be full participating members at that point.

So just a few closing words from our interviewees, we should be expecting children to stay on track with their hearing peers and I want parents to have that expectation for their kids and know that even if we're not getting at it yet, why is that and what can we do differently?

We've got to see if what we're doing is effective or not or if the child needs something else.

It's just totally informs us about all of that and gives you objective not just gut-level feeling that the child might need something else or a different approach or more time or whatever the issue is, but that you actually have objective data to support that. So thank you so much and for bearing with me with my technical difficulties and have a good lunch.

It could be speech therapy, a developmental therapist, an early childhood specialist, a teacher of the deaf. So not OT, not PT. That's intervention too, but it wasn't counted in this. And it's arbitrary. That's important too, but that's a different kind of intervention. I see what you're saying. I think that their intention with the by six months is ongoing intervention of like working on communication skills.

Yeah. They also talk about amplification, and they say that guideline is within a month diagnosis. So diagnosed hearing loss, within a month, set the amplification in intervention by six months. Because they've already talked about amplification, I don't think that's what they're talking about when they say six month.

Thank you for coming.