

Testing the captions.

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>> WILLIAM EISERMAN: For those of you who have signed on early, I just want to let you know you're in the right place for today's webinar entitled considerations when collecting and documenting language outcome data. We're going to start at the top of the hour in about six minutes or so.

Something like that. Be aware if anything interrupts your attendance today during today's webinar, you will be able to review this webinar again because we will be recording it. So, keep that in mind if something takes youing and the away from today's webinar or if there is somebody that you think would benefit from today's webinar that isn't able to attend live with us today. So, keep that in mind. We'll be starting in a few minutes here.

For those who signed on early, you will see there are different options on how to lay out your video. You will see the video strip that I am in and the Interpreter today. There is a line bean this strip and where you see the PowerPoint slide. You can adjust that line right or left and stretch those respective displays to your liking. If you would like captioning, you can click on "live transcript" and that will activate the captioning option for you, which you can also adjust and position to your liking.

We will have a questions and answers pod open today, but we're not going to be monitoring it until we open up the floor for questions. So, we ask you to hold your questions until our presenter has completed her remark and we will invite questions and review those.

We will be starting in just a couple of minutes here.

We have people signing in at a fairly rapid pace transitioning from whatever they were doing until now up until this mode. We will give everyone a minute or so and then we will get started.

I'm going to keep talking here, so everybody has a chance to get their volume adjusted to their liking. We're going to be starting this webinar in a few minutes here entitled, Considerations When Collecting and Documenting Language Outcome Data brought to you by NCHAM, the National Center for Hearing Assessment and Management at Utah State University. This webinar is being recorded, so you can access it again, probably by Monday or Tuesday of next week, if anything disrupts your attention today or if you think of anybody who would benefit from today's content and isn't able to attend live. Monday or Tuesday of next week, go to the landing page of infanthearing.org and you will see this webinar posted there, along with the other webinarases we offer periodically.

We had a great webinar yesterday that you might want to check out. So, we'll give it one more minute and we will get started.

>> ALLISON SEDEY: What was that webinar, Will?

>> WILLIAM EISERMAN: You want me to come up with the exact title? It was on the topic of teaming and intervention process and having a god team that supports and present to the family and participating and planning outcome targeting and all of that good stuff of parent engagement and having the key people in their lives present to support them. It was really a great presentation. Well, I think we might as well get started. We are glad to announce today's webinar's topic, which is Considerations When Collecting and Documenting Language Outcome Data and our presenter today

is Dr. Allison Sedey. This webinar is brought to you by the National Center for Hearing Assessment and Management known as NCHAM and NCHAM is funded by HRSA as the EHDI NTRC or National Technical Resource Center. This is part of the EHDI NTRC webinar series that we offer on a regular basis. This webinar is recorded again, so know you can access it probably Monday or Tuesday of next week if you need to do that.

I want to give a shout out to our interpreters and our Captioner today for their time and talents in helping make this webinar as accessible as possible. Once Dr. Sedey finishes her presentation today, we're going to open up the Q&A and invite you to ask your questions. Hold your questions until we open up the floor and we will give you time to interact with the presenter today. Without any further delay, I would like to introduce my friend and colleague, Dr. Allison Sedey.

>> ALLISON SEDEY: Thank you so much, Will. Do you want to unshare and I will share my screen? Hello, friends and hopefully, future friends and thank you for joining me today to talk about things to consider as you are contemplating or doing the collection and documentation of language outcome data. My name is Allison Sedey as Will said. I'm at the University of Colorado boulder and I'm currently the direct of ODDACE which is the center for outcomes for EHDI programs. We're going to think about what needs to be considered when you're thinking about collecting data, the who, what, where, when, why, how, what instruments will you be using to collect outcome data? When would you do it and why would you bother and how would you go about this process?

Let me pause for a minute to talk about the term "best practice." I would say "best practice" is batted around frequently and isn't used as intended. It is that we're in agreement about the best way to do something or a team of experts have come together and using evidence has determined what the best way is to do something. I would argue that in terms of the collection of language outcome data and the documentation of outcome data, there is not an established best practice. So, those words may inadvertently slip out of my mouth today, be aware if they do, this is my conception of what best practices, my opinion of best practices and we don't to date don't have a single best practice when it comes to this particular endeavor.

So, what do I base my opinion on? Well, I've been fortunate to live in Colorado for the last almost 30 years and Colorado has a long history of statewide collection and use of language outcome data with children who are deaf or hard of hearing from birth to 3 and at different points in time going through preschool. So, I came here 28 years ago. I joined Christie Yoshinaga-Itano and Arlene Stredler Brown who have pioneered the effort here in Colorado to systemically collect language outcome data across our entire state.

So, for the last 28 years, I had the privilege of being able to continue with their vision and work in this area. Additionally over the last decade or so, I've been involved with two national centers, both supported by the centers of disease control, CDC. The first project is called NECAP and the second project is called ODDACE. It is supporting and working with programs across the United States in this particular endeavor. So, I had an opportunity to work with a variety of programs to talk with them about what some of the obstacles are, some of the successes that they had, strategies they have used, what they liked, what they haven't liked and that has helped to inform my opinion. So, ODDACE is the

outcomes and developmental data instance center for EHDI programs. We're not currently partnering with any new states because we are in the last year of this project.

So, let's start with our why. Why are we talking about this? Why would we want to collect language outcomes? What would be the benefits of this endeavor? I'm going to talk about it in terms of what might be some of the "whys" for the intervention program who want to collect data across their program and I'm going to talk about the "why" for state EHDI programs, why an entire state through their state EHDI program might want to collect intervention and language outcomes.

So, for an individual intervention program, one of the biggest benefits of collecting language outcomes is to benefit those individual children and families that the program works with because through the collection of language outcomes, you're able to monitor the progress of individual children. You can take the objective data that you're obtaining from an individual child, use that information that you have obtained to make a variety of decisions and those decisions might be things around how frequent the intervention services would be based on the levels of the child, based on the child's challenges and their strengths, who would be the best interventionist to pair with that particular child or family. And overtime, as you're looking at the amount of progress a child is making and seeing if they are making the expected gains overtime, you can make modifications to things like their communication plan if you feel that is necessary.

Some other reasons why an intervention program might want to collect language outcomes is beyond the level of the individual child, they may want to look program wide for accountability and evaluation purposes, so looking at the outcomes across an entire program allows the program to look at where they might want to make improvements as well as where they might have strengths. It informs them about personal prep needs and what areas their providers might benefit from extra education, extra training, and it can provide data if an individual intervention program is making funding requests, applying for grants or responding to people who are already funding their program. It provides data they can show about the successes of their program.

In addition, in many states, often through LEAD-K initiatives, sometimes other mean, there are mandates to report program-wide data. Some states, often again, in growth of LEAD-K outcomes and report the outcomes to a committee or community. And for part C. agencies, often the state part C. office requires periodic measuring of language outcomes and reporting those results program wide and in turn the part C. agencies have reporting requirements to the Office of education on the language outcomes.

Let's talk about why a state EHDI program might want to collect language outcomes. Collection of language outcomes by the state EHDI program completes a circle that up until now has been about three-quarters complete, so state EHDI programs have been collecting data on hearing screening, identification of hearing loss, many programs also collect information about intervention, whether it is the start of intervention, the IFSP date, et cetera, but we're just now getting into the territory of finishing off that circle and looking at the results of all of that great work that EHDI programs have been doing. What are the language outcomes of the children that have been screened? Their hearing loss has been confirmed, they are in intervention programs and that can be put together in what is already

established public health data system. It would be so nice to have all of those piece, because then you can look at those pieces in relation to one another. Examining different EHDI benchmarks, was the child's differences identified by the time they were 3 months of age? Were they in an intervention program by the time they were 6 months of age? How did that relate to the outcomes that the child is demonstrating, by having all of that information in one system, we can look at those questions. We can look at identifying health disparity, because within the EHDI database, we have other information about the child and the family and looking at other subgroups that are at higher risk language delays and where should we be directing our attention? Other motivations for an EHDI program for other organizations in the state doing EHDI programs, partnering with specialty programs who are serving children who are deaf or hard of hearing. And most recently, there's been an increased interest in this topic because federal funding is beginning to focus on language outcomes, so there is a recent HRSA supplement that 20 states have recently received that is all about language outcomes and collecting language outcomes and the next five-year HRSA funding cycle is including as one of its activities the collection of language outcomes.

So, I wanted to tell you a little bit about the framework for the remaining part of this presentation. We're going to look at the WH question, who, what, where, we talked about why, when and how, about language outcomes. So, what I'm going to do is talk a little bit about let's say the "who" question, what do you want to consider when you're thinking about who is going to administer assessments that are going to allow you to collect language outcomings? After we talk about considerations, I'm going the present what I would recommend, so again the world according according to Allison. You may not agree with my first choice or not think it is feasible in your program or in your state to do. We will talk a little bit about if you do go with an alternative option, what are pitfalls that you need to keep in mind and control for or at least knowledge -- acknowledge as you move forward.

Who will facilitate the assessment with the family? Someone has to gather them in the first place and my strong recommendation in this regard it would be the interventionist who is working with the family. If the family is engaged in an early intervention program, in my opinion, the ideal person to assess the child's language abilities would be the intentionist who knows the child or will be getting to know the child as they work with them on a regular basis.

Why do I say that? One, I think it is the most efficient and cost effective to collect outcomes because that person is already meeting with the family. They already have a relationship with the family. Typically, it is a very trusted relationship they have with the family, and so, not only does that make the experience better for everybody, but also if you're looking at completion rates and how many families are going to participate in a process, that percentage is likely to be greatly increased if it is the interventionist and not a stranger who is offering the assessment to the family.

Also, I really like the option of the interventionist collecting the outcome data, because it is more likely to be used for the direct benefit of the child and family rather than it being a piece of data that goes into a database and perhaps useful on answering public health questions, which of course is valuable, it may not have direct benefit to the child and and the family if the assessment is not done by someone who is visiting the family regularly.

The interventionist is knowledgeable about the child's skills. They are visiting with the child. They are visiting with the family. They are learning all about the child and having that second eye, a knowledgeable eye, so you have the parent's input that is valuable, but having a second eye on the data you're collecting to make sure everybody is on the same page in terms of what are these questions asking on this assessment? Are the answers we're providing actually responding to the questions? Are there misunderstandings only a person who knows the child might be able to identify? It also definitely shortens administration time, because many language assessments have bases and ceilings, which means you want to start the assessment around the point where the child is able to do the skill, but hopefully, you picked a spot you don't have to ask a lot of question, because rather quickly, you will get to a point where they are not able to do the skills on the assessment. Being able to plug in and start at that ideal point is a huge time saver. It might mean the difference between starting at number one, which means you might have to administer 20 questions to being able to know, I don't have to start at one. I know the child can do number one through 10. I can start at number 10, work my way forward and I cut my time in half. It definitely shortens administration time if there is a basal ceiling piece and even if there is not, if the fact the interventionist knows the child already, if they know, they have seen, observed the child do certain skills or they are confident that the child is not at a certain place in development yet, not yet able to do other skills, they can complete much of it on their own without taking the family's time for all of the questions, and then they can work together with the family to look at those items that are a little more -- that they are not certain about, not sure the child can do it, they might be able to do it. Those are the ones that they would like to take their session time and discuss with the family, get the family's input about the child's skills.

If that is not possible, which it may not be, what are other options? Other ideas if you don't have the luxury of being able to pair with an intervention program or for whatever reason the early interventionist is not able to collect the language outcomes, another option would be to hire somebody that your agency or your program would hire an evaluator and they would be the ones who would go out to do the assessment, might do it virtually with a family. Who would be the kinds of people a program might want to think about hiring? Parent guides might be an option, so if you have a guide by your side program in your state, parent guides might be effective evaluators, periodic home visitors might be an option. So, for example, some EHDI programs have public health nurses that visit with the family, any child connected to part C. is going to have a coordinator that visits with the family. Some programs have consultants, so they might provide support for children who are deaf or hard of hearing and that person might be the right one to do the assessment with the family.

Another potential option would be to use grad students and partner with your local university. This is a great opportunity for graduate students to get clinical hours, a course under supervision by supervisors at their university, and if they are in a program that is a speech pathology program, early childhood program, early childhood special Ed, possibly audiology there might be a partnership that might provide a great experience for the graduate students and potentially low cost or no-cost evaluator for your program.

Another option is to hire someone who is more of a coordinate and send assessments out via mail or

e-mail or a link in a text to a web-based form that the family would then fill out. So, in that case, you don't necessarily have somebody who has expertise in language assessment, but someone who is well organized and good with families and there are only certain language assessments that would work in that context. Some assessments need to be facilitated by someone who knows the assessment, but there are parent reports that can be done via mail or e-mail or a link to the form that is sent in a text to a family.

So, if you do end up going with one of the alternative options, I want to talk about a few things you want to keep in mind to make sure that this isn't going to be something where in the end you will be disappointed in what you did. So, one option, one consideration and I have mentioned this is the assessment is likely to take longer if it is not the interventionist working with the family on the assessment because the evaluator can't contribute. They can't answer any questions before they meet with the family. They can't validate what the family is saying to make sure the family understood the question, because they don't know what the child's skill level is, so that checks and balances will be missing that does reduce the validity of the results. It is nice to have two eyes on the assessment, two eyes that knows the child and knows the skills, if you're hiring an outside person who doesn't know the child or the family, you're not going to have the second look or validation.

If is not someone who is working with the family that the family knows and trust and the family feels like what they are doing is not only going to benefit the greater good, but is going to benefit their individual child, families are going to be less willing or less families will be willing. Particularly if you go with a mail/e-mail text situation. We know those have low response rates. Certainly, the coordinator would have to send it out more than once. As everyone is aware, if you call someone on the phone, they don't usually pick it up, especially if they don't recognize the number. A lot of people are not particularly interested in their e-mail anymore and people are ignoring texts that are coming from people they don't know as well. I would say that would be an absolute last option with there is nothing else that would be feasible. You are likely to have a low response rate to that.

So, let's move on to the "what." What assessment will you select? What do you need to consider as you're thinking about what assessment you will be using to collect the language outcomes? If you're partnering with another program, for example, an EHDI program is parting with a part C. program or specialty program that provides intervention services to children who are deaf or hard of hearing, what are they using? If you're partnering with an intervention program, it is highly likely they are doing something to assess the language abilities of the child. You want to find out what that is, if they like it and they want to continue or they are considering switching things up and trying something else out. As you're considering assessments, it is important to look at the kind of the score the assessment provides. So, there are a variety of language assessments available for children in the birth to 3 range, and some of them will provide age scores, some of them are checklists oriented and just are telling you the skills that a child can and cannot do. You can potentially count up the skills and get a raw score. Some of the tests provide percentile ranks, some tests provide standard scores. If you're thinking about collection of data program wide and using it to document, not just have an individual child is doing, but how children across an entire program or across an entire state are doing, the kind

of score you get is going to be really critical to what you're going to be able to do or what you're going to be able to say about the outcomes of children, not just one individual child where there is more flexibility about what you use that might be useful at the individual child level, but not everything is going to be useful to you at a programwide level. You have to think about the level of training that is required to administer that assessment. Is this something strictly parent report, you can hand it to a family, give instructions and nobody needs to facilitate the assessment? Is it an assessment where somebody knowledgeable needs to be available to guide the family through the process? Or is it an administered assessment where someone has to be really knowledgeable and sit down with the child and do the assessment with the child directly?

So, other considerations you want to be thinking about, again, can the family complete this entirely on their own? Will a professional need to facilitate it and if a professional does need to facilitate it, it brings you to the "who" questions.

Another important question and this requires looking at the assessment instruments you're considering, getting the test forms, and reading through all of the items. And one of the biggest issues that you need to consider is that is it clear in this assessment oracle you make it clear because you have a facilitator who is going to be working with the family that you want a positive response to any language skills that are demonstrated in spoken language or Sign Language. The vast majority of birth to 3 language tests were not designed for children who are deaf or hard of hearing in mind. Typically, it will say, does the child say 10 words or does your child say 10 words? We certainly want to make sure we're capturing if the child says 10 words, but also if they sign 10 words. If this has been mailed to a family or there is little assistance in guiding the family through the assessment, families might feel like, okay it says "says" and my child is expressing themselves primarily with Sign Language, so I should say no when really they should be saying yes. You will have a gross underreputation of their language abilities, unless it is clear as you go through the questions, as the family goes through the questions that we're not only talking about spoken word, but we're talking about signed words, signed sentences.

Another piece you want to be thinking about as you're thinking about your what, besides a language assessment, do you also want to take this opportunity to maybe gather additional demographic information? Because whatever database you may currently have, whether it is a part C. database, intervention database, EHDI database, likely your database has demographic information already. There may be other things that you want to look at with this data that you're collecting above and beyond what you already have. So, particularly when we're looking at that time question of health disparity. Let's say for example, are there differences in outcomes for children based on their parents' level of education? That may not be something you have in a database, but if that is a question you hope to answer with your language outcomes to identify potential health disparities this is the opportunity to create probably short, because you don't want it to be too lengthy, but to add some information to the database you already have or the database you're considering creating, so you can examine the questions you want to examine. There is nothing more disappointing than spending a lot of time collecting data and realize at the end some of your burning questions you wanted to explore,

you can't because you don't have the information you need to look at them. I would consider, if you're launching or you're wanting to enhance a program you already have, looking at language outcomes to think about if you have all of the information above and beyond language that you want to be exploring.

So, what are my recommendations when you select a language assessment? Number one, I think it is very important that you have a consistent assessment across all of the children, whether it is all of the children of the state, all of the children in your intervention program, if you're limiting it to a single intervention program, consistency is super important. So, you don't have one person doing one assessment, a different person doing a different assessment. We will talk in a minute about why that is so important.

The other thing I would strongly recommend is you select an assessment that is standardized and norm-referenced and we will talk about why in a minute. Also an assessment that includes parent input is extremely important. If time permits, you would want to select two assessment, one that is often referred to as a five-domain assessment, it is a general look at the child's development across a variety of domains, so you have the opportunity to measure how a child is progressing in their motor skills, cognitive skills, and also in their communication skills, and their adaptive or independent skills. That provides really nice information, again if you want to look at what influences language development, what puts some children at more risk to not be just measuring a single domain, but be looking across domains to see how domains overlap with each other or inform each other or associated with each other. You want to have a specific language assessment, because these five domain tests are much more general and they are not going to take the deep dive into language, which is your primary purpose if you're collecting language outcomes as an assessment that is specific to language would do.

So, if you're going to -- you only have the bandwidth to do one assessment or that is a decision you want to make, I would say go with the specific language assessment, and the other piece, you want to pick one known to be sensitive to language gaps or delays in children who are deaf or hard of hearing and not one that has a reputation of being high or underrepresenting children.

Let's talk about consistency. It is the old combining apples with apples story. There are many language tests out there to choose from, but each one is different on which component of language they might be measuring or on the surface it appears they are both measuring the same component of language. The questions are not going to be identical, so you really can't valuable limine 10 children who did one assessment with another 10 children who did something else and the other 10 did another thing. If you kind of, if you're a more hearing person and you want to think of it from hearing result perspective, it would be like saying, okay, I want to look at the functioning of the ear. I want to measure the functioning of the ear and I want to see how many of the 100 children we're going to assess in the average range in terms of their functioning, ear functioning. If you said 90% of the children were in average range because 45% of them passed a tympanogram numbers and the other half had hearing thresholds in an average range in a Pure Tone test, you can see that wouldn't make any sense. You could stay, oh, I have 45% of children in the average rain on their tympanograms and I have 45% of

children in the average range on a Pure Tone screen, you can't say, I have 90% of children whose ear functioning is in the average range because those two tests are measuring different things about how the ear is functioning.

The same thing goes with language tests. You can't be combining a test that looked at expressive vocabulary with another test that looks at comprehension of complex sentences and the other measures short-term memory and if on the surface it appears to be measuring the same thing and even if the questions were identical, they would never be, but if they were similar, they are going to have normative sample. Depending on the normative sample, was it a diverse sample of children? Was it a sample that skewed towards race and high parent education and high SES? Those normative samples are going to be different, so the scores you're going to get when you compare to your child's results to the normative sample is going to be different. As I said there are tests known to test high. There was an article written that I loved about a particular test that is commonly administered to a children that said even a potato would score in the average range on this common language test. It was a comment about how the test was underidentifying children who had actual language delay. Ideally, you want to avoid those tests, but if nothing else, you do not want to combine tests with children who are known to test high with other children who took a test that is known to be rigorous and identify gaps and the children are likely to score at the level they are at, but it may be a lower level than another test might say.

Norm-referenced, let's talk a little bit about that. What we mean when the test was developed that test was given to hundreds, hopefully thousands of children and when you give the test to your individual child, you can compare that child's performance with other children who are the exact age who are part of the normative sample. The beauty of the norm-referenced test when you're collecting outcomes across a program, you're not just going to get age scores. You're not just going to get a raw score. You're going to get a standard score or a percentile rank that is going to tell you where the child falls in the wide variation that we know exists in the language skills of very young children. So, you will be able to make statements about the percentage of children in the average range. You will be able to make subjectist determinations what you consider the average range to be, so you can look at what is the percentage of children who fall within standard deviation of the mean? Who is the percentage of children who are significantly delayed? They fall below the tenth percentile. You have a lot of options on how to look at your data, but you will be able to make statements about, not just how many they got right or what age level they appear to be functioning, but where do they fall in the wide variation of typical age development.

Parent input is extremely important as you're assessing children in the birth to 3 range. Parents have deep knowledge of their children's skill. It improves the accuracy and validity at this very young image. You can imagine if you administer a test to a 2-year-old, how likely that they are going to be to show everything they can do? They might have gotten up from a nice nap and they like you to a complete disaster where they are cranky, hungry, they don't take well to new people in their environment or they are just not in the mood today to show you their skills. So, involving the parent is critical. More patient involvement is required if the person who's administering the assessment or asking the questions

doesn't know the child's skills you're relying 100% on the parents' Knupp. It is a nice opportunity for the family, especially if you give assessments overtime that helps with their skills in observing their child and being able to talk about little steps they are making as their child is learning language.

So, what are some other options? So, if you say, this isn't going to happen Allison, you're out of your mind. We can't do a consistent assessment across our state. We can't do two different test. We can't do something that someone else has toed a manyster, so what sells available to you? You can do a five-domain assessment only. Doing a five-domain assessment is not a bad idea necessarily, but just know those tests are more general and they tend to underestimate language delay, so they overestimate the child's abilities. You might not be getting the most accurate picture of how children are doing across your program or state.

Maybe you have to use different assessments for different children that is just going to be the way it. We can't come to an agreement about using one thing across a program or across a seat. If that is the case, the important thing is that you create a field in the database where it is clear what assessment was administered, so when it come time to analyze or report on the results, you can divide your groups up into children who have the same assessment, so you are comparing apples to apples. You're probably going to end up with several apples, because you're going to have different assessments, but you don't want to be combining a child who did a preschool language scale with one who did a McArthur and one that did a Daisy. You can have three different groups, of so you can report on results using McArthur, report results on outcomes using a Daisy and you need to make sure you're marking that in the database to do the sub samples or subgroups later.

Other potential issue that could come is that you could say, you know what my favorite test the not norm-referenced and I'm not willing to switch or partnering with an intervention program and they are not willing to switch. So, the criteria referenced assessment would be next best because that the provides age scores but in that case, what you want to consider is you always need to have a field that includes the child's chronological age, because when they took the test, because an age score in and of itself the totally meaningless. Is a 24-age score good, it is great if the child is 20 months, but it is not great when the child the 30 months. You want to look at an age score relevant to how old they were when they took the test. I would suggest you create a language correspondent field and you end up with -- language quotient field and that means the child's age is what the chronological age was.

Scores are higher that means the language age is high are. Most tests words is just a listing of skills, it is not necessarily every six months you expect 10 more skills, it might be in one six-month period you expect 10 more skills and in another six-months, you expect 15. There is not a way to look across an entire program when you have a raw score count of how many items a child can do.

Other options and this would be if you really are constrained to doing something fairly slim that is not going to have a Lott of detailed information but would be a picture to some extent of the child's language skills. So part C. agencies need to report to the office of special Ed, what progressal category a child fell in when they exited their program. That is a five-point scale from A to E, but if you're partnering with a part C. program should be relatively available. To get to the five-scale A through E., many programs use a seven-point scale and it is called child outcome summary. They look

across three developmental areas, one of which focuses on language or certainly includes language. So, using the child outcome summary numbers is another option if you're limited to a small overview of the child's language skills.

So, when are these assessments going to be administered? That is another big question. Just want to put out a caution, it is often appealing to think about, I want to see how they are doing at the end, the end of early intervention, when they are 3, how are they doing? When they exit the early intervention program, move on to preschool and part C. services and that is appealing and saying 3 years old is a nice, round number, but keep in mind that early intervention programs typically stop working with families and children the day the child turns 3. And many of them are very, very strict about this. Where truly the international interventionist can no longer be working with the family in any capacity after the child's third birthday. If your model is utilizing early interventionists as part of the picture, they are not going to be able to do the assessment at 36 months. In fact, they won't be interested doing the assessment at 35 months, because they have one to four more visits with the family and likely their focus is not going to be on assessment in the last couple of opportunities they have to meet with the family.

When you think about usefulness, at that point, all of the transition has pretty much wrapped up. So, if you want the assessment to be useful for the child, the family, and the transition process, it has to be done several months before the child's actual third birthday.

What I would recommend is that ideally, you would have a first assessment as a child enters early intervention and typically a part C. program is going to do that, because they are federally required to do an entry and exit assessment. If that is not an option, I would say by 18 months of age, because at that point, you're expecting to have some formal language being developed or the child would be saying or signing words if they are developing words typically. Again in the ideal world, you will be continuing to do the assessments every six months, because that would be useful -- useful for the child and family for progress, so the family knows do I need to change my decisions about what I'm doing and how I am doing or is my child progressing the way I want it to be? Probably everything we're doing is exactly how we're doing it.

Another option is do two time points and I would recommend 24 months and 33 months. At 24 months, you want to see language exploding. Often in children you have language delay that is not happening, so catching it at 24 months when you have a solid year ahead of you in an early intervention program is a great opportunity.

33 months because we're getting close to exit and if you can only do it once, I would say close to exit, but don't think 36 months or 3 years old because logistically that is going to be difficult as the child is switching from one type of program to another, but think more 30 to 34 month of age. That coincides with when the transition planning is happening as the child the moving from early intervention to preschool or school-aged services and to me that is the closest age you will get closest to exit that is feasible.

Where will you do this assessment that is another question. I would recommend it happens in the family's home. Either in person or virtually through Zoom. Or alternatively, if the family is receiving their

services in a clinic-based situation, at the clinic during an intervention session. Both of these places are places where the family is going to feel comfortable, most likely and also where they are likely not be pressed for time as if you're doing it as a one-off in other location.

How are you going to go about this whole process? Once you decide what you're going to use, who is going to administer it, when are you going to do it, where are you going to do it, what is the process going to look like? How are you going to collect the language outcomes? My talk recommendation is for partnerships to be creative between state EHDI program and part C. programs or deafness specialty programs that are serving children across the state or in specific areas. One of the beauties of that is the cost and resources can be shared. For example, the assessment might be completed by personnel and the intervention program because that has all of the benefits, they know the family, they are working with them, ideally the family has a trust relationship with them, and the information they gather can be used to that individual child's benefit and that individual family's benefit and that information would be shared with the EHDI program. The EHDI program's strength is they have a database. They can create some new fields in that database if necessary or they may have fields already, and it would be the EHDI program's job to populate those fields and share back program-wide reports about how children in intervention programs are doing. Where are the challenges? Where are the strengths? Are there subgroups higher risk for language delay? Are there characteristics helping some children to be more successful?

If that is not going to work out because sometimes it doesn't for a variety of reasons, some other options is to hire an evaluator that will be coordinating or conducting the assessments. That person might do the assessment in person with the family, go to the family's home, the family may come to a center, they may do it via Zoom. Fortunately, most language assessments for children birth to 3 work effectively via Zoom because they don't require you have direct interaction with the child. Phone is a possibility, I'm listing these in order of desirable, mail or e-mail if it has to come to that or sending web links via text.

Again, I would say each of these has downsides to it and those downsides increase as you go down that list. Then you score the assessments, create and populate a database. so, if an individual agency or program is doing this on their own and not partnering, they have to think about all of the pieces or contracting with an outside entity such as a university program who might do some of the tanks whether it is ad mensterring the assessment, assisting with scoring, assisting with database creation or summarizing the outcomes every six to 12 months.

So, let's talk about the documentation piece and let me say if you forget everything I said today, if you're documenting language outcomes program wide or statewide please remember this one important point because I think you will be happy when it comes time to report you remember this. Most important when you're documenting language outcomes is you need to have a field that is going to indicate whether a given child who did the assessment has additional disabilities or they don't. So, above and beyond that, I would say there are more things to consider and let me back up to say why I'm saying this is so important. I think people who have collected language outcomes and don't foe if they came from children with additional disabilities or not are disappointed in the end when they

put the results together, because likely if you're assessing children who have significant impacts because of cognitive issues or other severe needs, the average score you're going to get in the end is going to be on the lower end of the range. And it is not because the child is deaf or hard of hearing but because of other impacts that are coming into play in their development. And so, reporting that single number is like saying, well, I had one child who was doing great and one child who was not doing very well but oh, as a whole, my group is doing right in the middle and that is not a clear picture. I think you will always want to look at both of those populations, but look at them separately and the only way you can do that if you have a field in the database that is going to indicate that. So, further considerations in that regard, you don't want to just say yes or no. You want to have some indication of those different conditions are thought to impact the child's speech and language. If in the group of children with additional disabilities, you have children who have problems that have been corrected, potentially vision problem that is corrected with glasses, potentially a balance problem that might not be thought to impact the child's language. You're not going to want those in the same group as children who have a condition like a cognitive delay that will likely impact their language development .

You want to look at separately children who have disabilities thought to impact language from other children who don't have other known conditions or those conditions are not thought to impact language development. Don't rely on a single check box that has disabilities and someone clicks it if they do.

What are you going to do when that box is not clicked? It does not mean the child doesn't have additionally disabilities, it might mean the person who filled out the report for the child had no idea and left it blanked or didn't see it and overlooked the question. You might have a yes, no, or unknown so if it is not populated, it is missing data and if it is populated, you know if it is a yes or a no.

How are you going to enter scores out of the test range? You're going to have some children that score below the fifth, a age score greater than 36 months, how are you going to handle that when it comes to data enter and unfiles? Are you going to exclude the children, are you going to assign them a value that you think is close and acknowledge that limitation, what are you going to do with that? You want a field that has the chronological age when they took the test. It is only meaningful relevant to how old the child was and if you have various tests that people have done that are contributing to the database, it is critical that you've indicated these outcomes are from this test, these outcomes are from the other test. And if you're doing it at multiple points overtime for a given child, you want to think about how you're going to store that, so people aren't writing over earlier result and you have a spot to put results over the course of time.

I will give a last couple of slides here. Quick picture of how we have our EHDl database set up to document language outcomes to give an idea of some of the things I have talked about with documentation. We do assess the children overtime, so this is a view showing how this particular child has two different time points. They have done two different assessments at each time point and we see the dates where they have done the assessments and we can keep adding more and more layers as many times as we want, as many times as we do an assessment with a given child.

Here is our fields where we put in the outcome and I circled a couple of important pieces. In red, I circled how we're indicating how the child has additional disabilities thought to impact speech language

development. People say yes, no, or it is unknown. If that is blank, we know it is blank, it is missing data. In orange, we've indicated what assessments we're using, so we label the assessment and then we have fields that are specific only to that assessment. Other fields that are specific only to the other assessment, so we're not co-mingling our Daisy results with our McArthur results. We have a spot for chronological age and we have each assessment separately. With a young child or other competing priorities, you're not going to necessarily do two assessments on a given day. They may be overtime and there may be a lot of time that overlaps between the two. You want to capture the child's age at both times.

For the McArthur, we get an percentile rank, but we also get an age score and we want to calculate that quotient and we can click the developmental quotient button and it divides the chronological age at the time they did the test and gives us our quotient.

So, that is the end of my presentation. I appreciate you staying on and listening. I know our time for questions is extremely short, but Will, if you have any questions.

>> WILLIAM EISERMAN: Let's see if we can get some questions addressed here. Thank you so much. One of the questions, for those who are on, in the Q&A box, you can type your question and I will read it aloud for Alli isn't -- Allison to answer directly. Maybe in the chat box, you could stick your e-mail address in there while we're reading. So, the first question is, I understand the value of norm tests. But they weren't normed on children using Sign Language in most cases. How comfortable do you feel saying a standard score is valid in that case?

>> ALLISON SEDEY: There are limitations there is no question about that. It is either, accept the limitations or do nothing. Because we do not have a sufficient number of tests that provide percentile ranks and standard scores normed specifically on children who are deaf or hard of hearing. There are tests that provide age benchmarkings so, we have the VSSL, the sky high scale, they don't provide percentile ranks or standard scores I guess it is a little bit of the baby with the bath water, I guess it is not the right expression or the idea -- what is it they say? The enemy of good is perfect. Rather than we're not doing any standardized tests because they are not perfectly valid, I believe they are still useful, you have to acknowledge -- it would be like saying, all tests -- not all tests, but almost all norm tests are normed to typical children, but you're giving those tests to children who may have language delays, they may have visual issues, they may have hearing issues, they may use a different modality than the normative sample, but that does not mean you should never use the assessments. I think if you went that route, the perfect route, you would find yourself with very little you could do by way of assessment.

Do I love it? No. But would I still use the assessment even if it wasn't normed on chirp who use Sign Language, yes.

>> WILLIAM EISERMAN: We have a lot of questions coming in and you tell us when we need to wrap it up. Which lead case states model best practices in assessments and data reporting of language outcomes with deaf and hard of hearing children?

>> ALLISON SEDEY: I don't know all of the states, so I'm reluctant to answer, because I will miss someone who is like, wait a minute. we're doing a great job. I have done a lot of work with Maine. They

have a bill that grew out of a LEAD-K initiative. I think they do an amazingly great job of documenting outcomes. I'm sure there are other programs, so I don't mean to lead someone out.

>> WILLIAM EISERMAN: Let's ask this question, are the McArthur and the Daisy two your favorite assessments for deaf or hard of hearing children?

>> ALLISON SEDEY: The McArthur is my favorite. The Daisy two, we use it, so I don't dislike it. Would I pick something else? Maybe. I think it is a good test. I love the McArthur.

>> WILLIAM EISERMAN: How small of a data group do you think it would be worth doing this? 10 kids a year, 20, 100?

>> ALLISON SEDEY: That is a super-good question. I think you need at least 10 because averages are not meaningful when you have six or seven. It is too influenced by one individual child, the average that you have is not really looking across a good group of kids. 10 when you talk about often suppressing data. 10 has been the number, the tricky thing is let's say you have 10 kids but three have unilateral differences and the other seven have bilateral, four have additional disabilities and six of them don't. You're not going to throw those characteristics together. You're going to want to look at bilateral separate from unilateral and additional disabilities, so you need to think about naturalling and reporting 10 in the subgroup that you're going to report on.

>> WILLIAM EISERMAN: Next question or comment. You've helped me appreciate how complicated this is if I was going to do this well and how much we would need someone with your expertise, especially with the ODDACE project ending. What kind of a person would we hire if we want to collect, data -- want to collect language outcome data in a quality way?

>> ALLISON SEDEY: I would look to universities or programs that -- intervention programs that you admire. So, there are many strong intervention programs specific to children who are deaf or hard of hearing and those are the ones I'm mainly aware of but there are olds intervention programs that serve a variety of children birth to 3. I would look to those programs who you admire or heard good things about, ask what they are doing, if you like it, consult with them. If you have a university in you're area or know about -- your area and they have a program on acquisition of children who are deaf or hard of hearing that might be a good consultant as well.

>> WILLIAM EISERMAN: When will the ODDACE program be ending?

>> ALLISON SEDEY: It ends August 31 of next year.

>> WILLIAM EISERMAN: We have so many questions that we're not going to be able to get to today, but thank you, Allison for your time today and everybody for for your attention. Allison's e-mail is in the chat, so feel free to jot that down. If you also look in the chat, you will see a link to an evaluation of today's webinar that will also generate a certificate of attendance in today's webinar. So, thank you very much, Allison for all of the time you put in preparing your presentation for us and all of the work that you do to promote best practices, as you said even if it is only defined by "Allison." Thank you very much, everyone. Thank you to our Captioner and our Interpreters. This webinar has been recorded and will be on our website, hearinginfant.org probably Monday or Tuesday of next week. If you need to share this information with others or review it again, you can do it there. All right, thanks, E.

>> ALLISON SEDEY: Thank you, everybody. Goodbye, friends. Have a good rest of your day.