>> DR. WILL EISERMAN: Again this is an audio check for today's webinar Lenore, I posted a test question. I don't know if you're seeing that. You had asked for that.

We'll be starting at the top of the hour today's webinar is entitled "Quality Hearing Screening For Children Birth to Five Years Of Age." You can adjust the volume to your liking on your end using your computer volume settings or your headset settings. You don't need to be worried about being mic'ed today. As you'll be having the opportunity to submit questions or comments via a text field that will be displayed at that portion in today's webinar. So you only need to concern yourself with getting your volume set to your liking.

Today's webinar as with all of the others that are part of Better Hearing & Speech Month this week is going to be recorded and then posted online. You'll receive an email about where to find that link once it's posted so that you can review these again or share them with others that you think may benefit from the information that's been given today and during the other webinars this week.

We'll be starting in about five minutes, at the top of the hour (Standing by)

>> DR. WILL EISERMAN: While we wait to get started there's a poll question on the screen for you to complete. It's always nice to have an idea of the backgrounds of the different people that have joined us for the webinar, it helps us as presenters to
frame our ideas and information a little bit more specifically to the audience that we have in attendance. So thank you for giving us that information. And as always, it's always really cool to see the diverse kind of participation we have across so many different perspectives and roles that people play.

Since people are signing on at a fairly rapid rate right now, I'll continue to speak so that everybody has an opportunity to adjust the volume to their liking. This is a webinar entitled "Quality Hearing Screening for Children 0-5 Years of Age"

Right now there's a poll question on your screen for you to just tell the presenters today a little bit about what your background is so that we have a chance to see the perspective that you bring to today's conversation.

You don't need to worry about being mic'ed as you'll have an opportunity to present your questions via a text field that will be displayed after about 15 to 20 minutes after today's presentation.

We'll be starting in about three minutes.

(Standing by)

>> DR. WILL EISERMAN: For those of you who have just signed on, the webinar will begin in about two minutes entitled "Quality Hearing Screening for Children 0-5 Years of Age".

You can adjust the volume on your end using your computer speakers or headset volume controls.

You don't need to worry about being mic'ed today. You'll have an opportunity to present your questions or comments via a text field that will be displayed after our presenters have completed a 15 or 20-minute presentation. So you only need to concern yourself with getting your volume to your liking.

As with all of the webinars that are being offered as a part of this Webinar Series this week, this one will be recorded, as well. And will be posted online.

You'll receive an email of where that link is. So that you can share it or view this or any of the other webinars at another time.

Well, I see we're at the top of the hour, Marco, are you ready to begin.

>> Yes, I am

>> DR. WILL EISERMAN: I'm going to pause for just one moment to start the recording of the webinar and then I'll hand it over to you.

>> Great.

>> OPERATOR: Audio recording for this meeting has begun.

>> DR. WILL EISERMAN: Okay. Marco.

>> Good afternoon, and welcome to the third of five webinars in the Better Hearing & Speech Month coffee break web series I'm Marco with the Office of Head Start and the Department of Health and Human Services the Office of Head Start is pleased to be presenting this with the Department of Health and Human Services and the Department of Education.

As stated before earlier in the week we wanted to support the American Speech-
Language-Hearing Association in celebrating's this year's theme communication takes care we feel these webinars allow us to learn more about hearing screening and the use of assistive technology to support children and their families so we appreciate you taking time to attend today's webinar now I want to turn it over to Will Eiserman and Jeff Hoffman with the ECHO Initiative and "Quality Hearing Screening for Children 0-5 Years of Age".

>> DR. WILL EISERMAN: Thank you, Marco, and thanks, everybody, for taking time out of your day to spend some time thinking about this important question.

We always like to begin our conversation about this with a reminder each day children who have hearing loss are attending early childhood programs but we don't necessarily know who they are.

Hearing loss is an invisible condition. So how can we reliably identify which children have normal hearing and which may not?

And the short answer to that question is to be trained to conduct evidence-based hearing screening.

The screening is a first step in the process of identifying a disability like hearing loss. And screening processes, whether they are for hearing or other areas of development look at general indicators, commonly associated with conditions of concern.

Since no screening method is 100% effective in identifying possible areas of concern, we always like to remind everybody that parent or caregiver concern always overrides a passing screening result. No matter what screening method is used.

So any conversation about screening should always begin with a recognition that screening methods aren't perfect. And whenever a parent or a care provider has a concern, children should be referred for a more thorough evaluation. And that's true even of the highly reliable hearing screening methods that we're going to be talking about today.

We also want to let you know that the evidence-based screening methods that we now have available for hearing screening mean that it's no longer appropriate for us to rely solely on subjective screening methods like a child's response to a bell or clapping hands. Or to rely solely on a parent or caregiver's perceptions as the only method for looking at screening.

Those simply are no longer considered adequate screening methods. And we should also point out that although some health care providers do incorporate hearing screenings in the well child visits, this is not yet standard practice that we consistently see.

So if your program is wanting to ensure that all children receive a quality hearing screening, you can't assume that this is being done by anybody else, by health care providers. Unless you receive your specific hearing screening outcomes that specifies the methods that were being used, you never want to assume that a quality hearing screening was done.
And it's important not to mistake an ear exam as a hearing screening. We want to refer you to kidshearing.org for more information about this and actually that's where you'll find all of the information expanded upon that we're going to be talking about today.

So you probably recognize this photograph. You've probably been on one side of this window or the other or maybe both. And it's always good for us to start talking about periodic screening and why it's so important to look at hearing starting at birth. And why we're seeing more and more early childhood programs, probably like those that you represent, engaged in improving the quality of hearing screening practices. Because as close as we look, and we do look very closely at children the moment they are born, as close as we look, we can't see hearing loss. Not as birth and not even as children get older. And yet permanent hearing loss is the most common birth defect in the U.S.

This is why we now systematically screen children for hearing loss at birth. But even when babies pass the newborn screening, it's important to continue to screen throughout early childhood because hearing loss can occur at any time in a child's life as a result of illness, physical trauma, or environmental or genetic factors.

In fact the research suggests that the incidence of permanent hearing loss actually doubles between birth and school-age from about 3 in 1,000 at birth to about 6 in 1,000 by the time children enter school.

And that increase is why it's so important not only to screen for hearing at birth but to continue to screen for hearing loss throughout early childhood, throughout those critical language-learning years.

I think we all talk a lot about language being at the heart of cognitive development, social-emotional development, and school readiness. That is on the tip of our tongues. And in fact, it drives many of the practices that we see in early childhood settings, as it should.

It's also important to note that hearing health is at the heart of typical language development. And yet, we don't talk about that maybe quite as much.

So if we're going to be conscientious about promoting language development as a part of our commitment to school readiness, we should be equally conscientious about monitoring the status of hearing throughout this period.

When hearing loss is identified early, this can significantly minimize, if not eliminate all together, the delays that have historically been associated with hearing loss as a result of early identification and access to various communication options, children who are deaf or hard of hearing are thriving now in ways that used to be rare. And let me show you a couple of examples.

This is a video of a girl with a significant hearing loss who was identified early in life. And let's have a listen.

>> I am Krista and I am ten years old and I go to Brookside elementary school.

>> My favorite subjects are math and reading and when I grow up I want to be a
teacher.

>> DR. WILL EISERMAN: So her mode of communication is through the using hearing aids. That's one option.

Let's show you another example of two brothers who both have significant hearing losses, as well. And they are using cochlear implants.

>> Hey, I'm Ajay. Yeah.

>> Hi, my name is Gibson. People are special in different ways

>> One of the things that makes me feel special is that I am deaf.

>> I'm deaf, too. And deaf means that your ears can't hear. Ajay and I have special things to show you. They are called cochlear implants. They help us hear.

>> Cochlear implant is a big word so I call them CIs.

>> DR. WILL EISERMAN: So that's another example of the outcomes that we can see when we have committed to early identification. And let me show you one more. And these children rely on manual communication.

(Video).

>> DR. WILL EISERMAN: So communication takes care. And that's the whole idea of this week's series on communication and there are many options for children. But the first step is that we need to be able to identify their needs.

So let's talk now about hearing screening methods. And we're going to start first with talking about three to five-year-olds. There are two primary methods used with the three to five-year-old kids the first is one called pure tone audio metric screening which has traditionally been the choice. You see these depicted here the children have those familiar headsets on, headphones on and they raise their hand in response to the sound. In pure tone screening the screener instructs the child in how to listen for a tone and the child responds by raising a hand or placing a toy in a bucket.

Once the screener is confident that the child understands those instructions or the game, if you will, the real screening is then conducted. And that takes a little bit of time to get set up and ready to go And once there's confidence around that, the listen and respond game is then repeated several times at three different pitches with the screener noting the child's response or non-response to each presentation of sound.

So let me show you a little bit about what this looks like. Now this is in condensed timeframe. Generally this can take about ten minutes to actually prepare a child and then to actually screen the child this way.

>> Beep, beep, beep. There we go. Now I want you to listen again Beep, beep, beep. There we go. Now I want you to do it all by yourself. Are you ready? Listen. There we go. Good girl.


>> DR. WILL EISERMAN: In pure tone screening -- pure tone screening is not an
automated process. So the screeners have to be prepared to teach and condition each child to perform the task in response to the sound. So that's the first thing they have to learn to do. They need to determine whether a child is reliably performing that task. And then they have to vary the sound pitch presentations and timing during the screening while also watching the child's responses and recording them accurately.

It's critical that screeners are thoroughly trained in this process and that the screening parameters are maintained for all children.

We have been concerned about the degree to which program staff are able to adhere to those kinds of standards and so we created a Teach Me Checklist for pure tone audio metric screening that we'll be expanding on in years ahead you can find at kidshearing.org this checklist is designed anybody wanting to learn to do quality pure tone audio metric screening could partner with a local audiologist who would help them master these skills. The checklist includes several links to our Web site that will help you find an audiologist, who can then assist you in working through this process of learning how to do all of the things that are necessary in doing pure tone screening.

Okay. Now, let's switch gears. That's one of the methods available for three to five-year-olds let's talk about another available message called otoacoustic emissions or OAE screenings many programs are adopting OAE screening as their primary screening method particularly if they also serve birth to three-year-olds and want to employ a single screening method for all of the children they serve the American Academy of Audiology and American Speech Language Hearing Association actually acknowledges that all -- not all children in the three to five-year-old age range are actually able to do pure tone screening. They can't learn all of those steps and follow them reliably so these organizations have suggested that OAEs be the next option for at a minimum that 20 to 25% of the children in the three to five age range that won't be able to be screened using pure tone audiometry.

So even if you are choosing to use pure tone screening, it's generally a good idea to be able to -- to be prepared to do OAE screening for that percentage who can't be screened with pure tones.

Others however are adopting OAEs as the sole method, the primary method. And OAE screening is in fact the primary recommended method for children birth to three years of age.

So let's talk for a moment about how OAE screening works I'll ask Jeff Hoffman who is my colleague and a pediatric audiologist at -- our Outreach Coordinator at the ECHO Initiative to walk us through OAE screening briefly.

>> DR. JEFF HOFFMAN: Thanks, William. You know, the children shown in these photos are being screened using the OAE method. They are being screened by in educational and home visits and health care environments. And those doing the screenings are teachers, home visitors and health specialists, the screening works best when children are familiar and comfortable with the adult doing the screening and where they can play with a toy or be held or even sleep while the screening is conducted.
Let's talk for a moment about how this procedure works so that you can understand why it's possible to screen a child so young. To do it while they are even asleep. And why it's relatively easy to do.

Differing from pure tone screening, the OAE screening method is an automated screening. This means that once you begin the screening, the device itself completes all of the steps. And you as a screener don't have to step through all of the multiple pitches or frequencies as you do with pure tone screening. To conduct an OAE screening this is just like pure tone screening we must first take a look at the outer part of the ear to make sure there's no sign of infection or blockage or malformations, a small probe is then placed in the ear canal and the probe which delivers a low volume sound stimulus into the ear you see here it's the blue object over there on the left side, if the cochlea, which is the inner snail shaped portion of the ear if that's functioning normally it will respond to the sound by sending a signal to the brain and also producing an acoustic emission and this emission is analyzed by the screening unit and in about 30 seconds a result shows up on the screen which is either a pass or a refer.

So every normal healthy inner ear produces an emission in response to the sound stimulus that can be recorded in this way.

So let's take a look at a real-time screening using OAE methodology.

>> DR. WILL EISERMAN: Thanks, Jeff and this little guy is particularly well behaved but really pretty indicative of what a three to five-year-old would behave like during a screening. Birth to three-year-olds take a little bit more finessing but I think he's actually in that age group so we'll start it now. The screener will put the probe in his left ear there. And you don't see the device right off. But it's a little handheld device here. She started the screening by pushing one button or a couple of buttons.

>> Pass.

>> Yay.

>> DR. WILL EISERMAN: And that's the end of it.

>> Thank you.

>> DR. WILL EISERMAN: Now they are going to put the probe in his other ear. We always want to screen both ears.

>> Okay, are you ready? There you see the device. And she started the screening process.

>> You already did it. Good job.

>> DR. WILL EISERMAN: And they are done.

So as with pure tone screening, it's always essential that anyone wishing to conduct OAE screening receive thorough training.

The OAE screening process is a fair bit simpler and quite a bit faster to complete than pure tone screening. Especially with three to five-year-olds because the screening is automated. And doesn't require the behavioral response or that conditioning process that you have to do with pure tone screening. Nevertheless, there are still skills that anybody desiring to do pure tone screening need to learn to do. And again, we
encourage that you seek assistance from an audiologist partner to help you develop those skills and get the training that you need. And that training is almost always needed beyond what an equipment manufacturer can provide. That audiologist partner can help both with equipment selection and with training and the development of your entire screening program and we have all the resources you need on kidshearing.org to develop and implement your OAE screening and pure tone screening programs.

The training process will include for OAE screening will include how the OAE screening works, how to use the equipment by practicing it on yourself and other adults. Becoming familiar with what the messages on the screen mean. You'll learn how to create a positive screening environment for children, how to select appropriate probe cover sizes, to confidently insert the probe in the child's ear. And you'll also learn those important skills of how to manage a child's behavior throughout the screening process.

We have worked with many Early Head Start programs across the country who use OAEs with birth to three-year-olds and sometimes that age group can be a little bit challenging so it takes a little bit of time to get comfortable with that. But thousands and thousands of children are being screened using OAEs now. Three to five-year-olds tend to be much more cooperative. So completing OAEs with them is simpler.

Whether you're conducting pure tone or OAE screening, you'll need to have a good way to document results. A clear protocol to follow. And a systematic way to track children who don't pass and who will need further follow-up.

Again, kidshearing.org offers you a clear protocol and forms and letters for parents. All that correspond with our protocol. So we invite you to spend some time looking at the resources that we have there.

We're going to wrap up in just a minute but before we do that let's talk for just a second about a couple of the similarities and differences between these two screening methods that we have reviewed today so that you know how to move forward.

Let's start by talking about the actual screening and follow-up protocol. The protocol is essentially the same for both OAE and pure tone.

If a child passes the screening, the child -- the child will be done when either they have passed the screening on both ears or the child receives an audiology's evaluation and you have obtained those results.

When you're being trained the audiologist partner will walk you through the follow-up steps like you see here and it's just really critical that anybody involved in OAE screening or pure tone screening have a clear understanding of the protocol that they are going to follow. And it should look something like this.

There may be a few modifications to this. But generally this is the standard protocol for both methods.

So to conclude, if you're interested in birth to three hearing screening, the OAE method is the way to go. This is the recommended method.

For those who are involved with three to five-year-olds, you have some more considerations to make because there's two methods for you to consider. The decision
on what method to use should always be made with input from a pediatric audiologist
and others who have an investment in your program. And you should also look at state
regulations that might inform your decisions.

Here are some of the considerations you'll want to keep in mind. And again you'll
find these detailed on our Web site at kidshearing.org. The first is about automation, is
it manual or automated. What does that mean?

Generally manual equipment involves more training, more child cooperation, more
time to get it going. So you see that difference between power tone and OAEs.

Cost is always a consideration. And so you see there is a cost difference between
these two pieces of equipment.

The setting that you can screen in. So with pure tone screening, you need a
relatively controlled, quiet environment. Whereas with OAEs, you can screen in a more
natural environment with a modest amount of noise. Though, that environment, too,
eeds to be controlled to a certain extent.

There’s the question about the age and developmental level of the children being
screened and the question of do I have to speak the language of the child I'm
screening?

With pure tone, there is a level of developmental competence that is required for
children to participate in pure tone screening. And the screener and the child being
screened do need to share a language.

Whereas with OAE screening, you can screen a child as young as a few hours old.
And of any language, whether you share that language or not.

There’s always a question about what do we do about children that we just aren't
successful screening? So with children with pure tone screening, we expect about 20 to
25% of children in the three to five age bracket just won't be able to do pure tone
screening. For those reasons we talked about before.

And with the OAEs we expect less than 5% won't be able to be screened using that
method. So if that's the case, then what do we do? So for pure tone, OAEs need to be
in your back pocket or a referral to an audiologist.

So if you’re not going to do OAEs yourself, you need to have a plan for having 20 to
25% of your children seen by an audiologist for a complete audiological evaluation. And
for some programs, that can be a fairly challenging thing to implement.

For OAEs, for that less than 5%, the backup plan would be an audiological referral.

So we're going to open it up for questions now. We want to remind you again that
kidshearing.org offers a broad array of resources to help you learn more about these
methods and to start developing your evidence-based hearing screening practices both
for pure tone and OAE screening, for birth to three-year-olds as well as three to five-
year-olds. And we're here, also. You can contact us through our Web site.

Any time. And Jeff, maybe you could put your email address over there under your
name. I neglected to put that in but you can do that.

>> DR. JEFF HOFFMAN: Certainly I will do that.
>> DR. WILL EISERMAN: You can email us, as well, if you have any questions.
So if you want to use our Q&A -- our question field over on the left, we'll stand by for as long as you would like to answer whatever questions you have.

One of the questions that has come is to repeat again what the costs are. And I'm going to go back to that slide. Because we went over that very quickly.

Pure tone audio metric screening equipment ranges from about 900 to $1500. That's a pretty significant difference between that and the cost of OAEs which are about $3600. Plus you have some disposable supplies which will cost about 20 cents to $1 a piece for the disposable probe covers. You need one for -- at least one for each child you are screening. But we typically recommend about 150% of the total number of children that you would need.

Now, keep in mind that if you're opting to do pure tone screening, you may also be purchasing an OAE device for that 20 to 25% that you wouldn't successfully screen with pure tones. So that's just a part of that consideration that you would want to be making.

So here is a question, Jeff, I'll let you take this one, how early can we use OAEs with infants?

>> DR. JEFF HOFFMAN: OAEs are used as one of the two methods for newborn hearing screening. And the recommended youngest age is 24 hours. So any child from 24 hours of age on can be screened with OAE hearing screening. In Early Head Start programs, if you can get the results from the newborn hearing screening and it's a passing result, you know, you can plan on using that as a good hearing screening result for about the first six months or so and then you would want to rescreen after that to make sure that a later onset hearing loss has not occurred.

>> DR. WILL EISERMAN: One of the next questions is, why aren't more doctors using OAE screening equipment? And that's an excellent question. And you know, I don't know that any of us can really definitively answer that question. Except that we know that health care providers are increasingly appreciated to perform a variety of different tasks during well child visits. And hearing screenings have not risen to the top of that priority list because of the other competing demands that are on them. There's an awareness challenge. And there's also I think a need for more research that would show the feasibility. And there's also reimbursement issues. So all of those together can explain that.

There's also that question about the conditions under which children can be screened. And the one requirement of doing OAE screening successfully is that the child needs to be relatively quiet. And if they have had any kind of negative experience in a health care provider's office and are crying, you're not going to have success with the screening.

And so one of the reasons why we have seen so much success in early childhood, early care in education environments, is because children are often already so comfortable and happy in those environments and we can integrate a hearing screening activity while they are continuing to play. Or while they are sleeping. And be able to
finesse that more effectively than in an environment where a medical procedure or exam is really the agenda. And the children know that.

Yeah. And lack of insurance can definitely be another part of that consideration.

Jeff, if a child has passed, does the OAE indicate if they have a mild, moderate or severe loss? Or is it simply a pass or fail?

>> DR. JEFF HOFFMAN: Yeah, you know, if a child does not pass the OAE hearing screening, the result that you get is a pass or a fail because it is a screening rather than an evaluation. It takes an audiologic evaluation to determine the type and the degree of hearing loss, where in the auditory system the hearing loss may be. As well as whether it's a minimal or a mild or a moderate or profound hearing loss.

So the OAE screening is simply a screening. Pass or fail. Pass or refer.

>> DR. WILL EISERMAN: So when -- what recommendations do we have to provide when screenings -- when a child doesn't pass an OAE? What would be the next thing we would do? And our recommendation is that they follow the protocol that we briefly showed you. Or if they are not able to be screened, then make a referral to an audiologist for a complete audiological evaluation.

So there are two types of OAEs and OAE devices. One is called DPOAE and the other is TEOAE. And this is really just audiological lingo being asked about here but the question is which type of device, which kind of OAE should we get? Jeff, do you want to talk just briefly about that choice?

>> DR. JEFF HOFFMAN: Certainly. We recommend the DPOAE, distortion product OAE equipment. It's a little bit better on identifying issues -- potential issues in the higher frequencies where more of the hearing loss, the permanent sensorineural hearing loss which is what we're looking at, the cochlear hearing loss occurs. And it's also more common in the United States than in other countries, TEOAEs are more common. Both are used in newborn hearing screening.

>> DR. WILL EISERMAN: And to circle back just a little bit to the previous question about the degree of hearing loss and what is -- what can be concluded from a hearing screening, remember, this is just a hearing screening. We're not diagnosing hearing loss. We're really looking to determine which children are at risk for having a hearing loss who need to be referred for an evaluation to determine whether in fact they do have a hearing loss or not.

If a child, Jeff, fails a hearing screening, is a referral made to the local Part C office?

>> DR. JEFF HOFFMAN: Typically the referrals to the local Part C office or early intervention occurs after a hearing loss has been diagnosed through an evaluation. There may be some instances and it may be a state-by-state decision on whether a child who doesn't pass a hearing screening gets referred to Part C early intervention. Typically, though, I mean, it definitely should happen when a child has been diagnosed with a hearing loss from an audiologic evaluation.

>> DR. WILL EISERMAN: So here is a question about mild hearing loss, Jeff. Will an OAE pick up a mild hearing loss? Can you talk about that?
>> DR. JEFF HOFFMAN: You know, it's going to pick up some -- the mild hearing loss, there's a range in there. And it's going to pick up some of the more -- the hearing loss that's a little bit greater in that mild range. But there's always some mild hearing loss that will not be picked up. Whether it's newborn hearing screening or you know periodic early childhood screening.

And that's the case with -- also with the other types of objective hearing screenings that are done with newborns, also, that mild hearing loss may be not picked up. Most hearing losses of greatest concern will be. And that's also where the recommendation is that if there is a concern about hearing, a concern about speech or language development, that a referral for an audiologic evaluation is in order.

>> DR. WILL EISERMAN: So another question, does the OAE machine need to be tested for accuracy? And if so, how frequently?

So we -- the manufacturers typically recommend that your device be calibrated on an annual basis. So -- and that costs about $250 to $300 I believe to have done. So you want to factor that into your decision making process, as well.

So -- and then we always recommend -- and this is a part of the training process -- that before any screening is done on a given day, you test the screening -- the screener on yourself. So you'll always want to have some adult size probe covers there. And you'll screen yourself just to make sure that it sounds like it's supposed to. And that you're getting the kinds of outcomes you would expect to see on your own ears.

So those two steps, annual calibration and regular testing on yourself or another adult, is always recommended as a part of monitoring the operational evidence -- quality of your machine.

We have another question here, how soon after a newborn hearing screening should a child be screened again? Jeff, do you want to take that?

>> DR. JEFF HOFFMAN: Certainly. And I'm going to answer it in two ways. One is if a child did not pass the newborn hearing screening, they may need to be rescreened within a couple of weeks. Or depending on the state they may be referred directly for an audiologic evaluation.

If they did pass the newborn hearing screening, which is the case for most of the children, you know, we -- it's a little bit of a program decision on that. But we recommend using a passing newborn hearing screening result for about six months or so. Definitely no longer than for a year

>> DR. WILL EISERMAN: And I would add to that that whenever there's concern, we always want to screen. And then follow up that concern, no matter what the result is, with a referral. That's particularly important when there are concerns of other areas of development, particularly behavioral related concerns or speech and language concerns.

We -- our experience has been that a number of the children that have been identified with hearing loss as a result of the screening activities that we've been involved with in Early Head Start have been children that are already enrolled in Part C
early intervention services. Often for speech and language related concerns But who did not have a hearing evaluation as a part of their protocol for entry or for assessment within Part C.

So we're waving the flag about the importance of making sure that particularly children in Part C early intervention programs, that those children are getting an adequate hearing evaluation. And the first step of any hearing evaluation is an OAE for birth to three-year-olds. If they pass, then the evaluation doesn't necessarily need to go further.

But if they don't pass, then you would need a full-blown audiological evaluation. So at a bare minimum, we would like to see all children in Part C get OAE screenings.

Let's see, are there any other questions?

This webinar is being recorded and will be posted on our Web site as well as other Web sites most likely. You'll receive an email from the same source that you learned about this webinar giving you the details on where to find the link to this webinar as well as the four others that are a part of this week's series.

Oh, here is another question.

You mentioned screening within six months to a year after passing a newborn screening. Do you recommend yearly screening after that?

Jeff, do you want to take that?

>> DR. JEFF HOFFMAN: Certainly. And that is our recommendation. And you know, it's really based on looking at the incidents of permanent hearing loss doubling during the early childhood years in that birth to school-age range. And with the intent of being able to identify through an audiologic evaluation identify all of those hearing losses that are possible.

Of course screening is the first step in determining if an audiologic evaluation may be needed. So annual is our recommendation. Some Early Head Start programs that I know of are doing it semiannually. But most are doing it annually.

>> DR. WILL EISERMAN: And what you mean by semiannually is twice a year?

>> DR. JEFF HOFFMAN: That's correct, right.

>> DR. WILL EISERMAN: I think some of those terms sometimes get confusing for people like biweekly --

>> DR. JEFF HOFFMAN: Yeah. Every six months.

>> DR. WILL EISERMAN: Yeah. You know, keeping in mind that we really don't want to wait. Because when we wait -- if we wait for a behavioral indicator of hearing loss, we have already lost some valuable time. Because that means that children are starting to show us through either language delays or frustration with communication that they are not really having the anticipated communication experience that we're thinking they should be having.

We don't want to get to that point We want to find out about their hearing loss
before it impacts them.

And it will impact them immediately really So the sooner we find that out, the better

And I hope that if you -- things I'm hoping you'll remember from today's webinar, aside from going back to our Web site to see more about the resources we have there, but those videos that we showed you of those three different examples of what the outcomes can be for giving children access to communication strategies, whether that's through sign language, through the use of cochlear implants, or through the use of hearing aids, that when they have the access, their communication experience can flow. And they can, as a consequence, thrive.

Well, I don't see any further questions. So we want to thank everybody for your attendance today. And Marco for your introduction. And Tracy with the Office of Special Education Programs for the including us in this Webinar Series. We invite you to be in touch with us through our Web site or through Jeff's email address is over on the side there.

We are here as a National Resource Center and we want to be able to offer our resources and our guidance in whatever ways would be helpful to you.

So know that we're in a position to do that, if we can be helpful.

Thank you, Jeff, and thanks, everybody.

>> DR. JEFF HOFFMAN: Thank you.

>> OPERATOR: Audio recording for this meeting has ended.

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