Implementing Hearing Screenings (English)

Steve Shuman: Looks like we have almost 1,000 people on. So, I'd like to get started and introduce our hearing screening audiologist subject matter expert for the National Center on Health Behavior and Safety, Dr. Alejandra Ullauri. Alejandra?

Dr. Alejandra Ullauri: Thank you, Steve, so much for your welcoming message. And thank you everybody that is logging on. We have nearly 1,000 participants. I'm so excited that you're all interested in hearing screenings. Let me just pass my next slide. My name is Alejandra Ullauri. I'm a bilingual audiologist. I'm certified by the American Board of Audiology. And I've been working with children with hearing loss for over 18 years. I'm so excited to talk to you about hearing screenings because hearing is essential for a child's global development, speech and language development, social and emotional well-being, as well as academic learning. An undiagnosed hearing loss can have long lasting effects on a child's language development, behavior, social interaction, and education. This is the main reason why we allocate so many efforts and resources to screen children for hearing loss. We want to make sure that if a child has a hearing loss, we are aware of it so we can help the child and the family access the services they need.

Today we're going to talk about hearing screenings. That's exactly how we help children and families. We're going to cover what hearing screenings are, why we screen children for hearing loss, how we do it, and when we do it. So, before we start, I'm going to ask, Kate, if you could please help us with putting some questions up, and all the participants can help us answering these questions. We're going to give you a few minutes to do that.

So, if you all can see the questions – which one describes you and your program the best? You are new to hearing screenings in your program. Maybe you have staff currently performing those screenings. Maybe you're partnering with a community partner to perform the screenings for you. And maybe you're obtaining hearing and screening results from another facility.

Kate, I don't know if we have some answers coming in so far.

Kate: Yes. Just let me know when you'd like me to stop the poll, and I can show them.

Dr. Ullauri: Let's just get a couple more answers. And let's see what people are telling us. Fantastic. Many of you are familiar with hearing screenings. Staff are performing them in your centers. Some of you are new. Some of you are partnering with community partners. And some of you are obtaining results from other centers. This is great. Thank you, Kate.

So, as we cover hearing screenings, we want to talk about what the principles are for screenings. The World Health Organization has 10 principles to conduct health screenings in different topics. We're going to concentrate on four. Number one is that we have to screen for important health problems. Number two, we have to use feasible, evidence-based, and cost-

effective screening tools. Number three, once we screen a population and we find somebody that did not pass the screening, we need to have appropriate diagnostic services available to those people. Number four, once somebody is diagnosed with a health issue, we want to make sure that we have treatment options for those people. When it comes to hearing screening, the good news is that the answer is “yes” to all of these principles. Hearing loss is an important health problem. Luckily, we have feasible, evidence-based, cost effective screening tools. We're going to talk about some of those today. For those children that did not pass the hearing screening, we have age-appropriate diagnostic services available. For those children diagnosed with the hearing loss, we have treatment and management options to offer them.

So, what is a hearing screening? The WHO refers to a screening as a sorting process. So, think about a tool that helps you separate the people that may have a condition from those that may not have the condition. Screening test is never 100% accurate. It just gives us a high probability of somebody being at risk of having a condition versus somebody being risk-free of having a condition. A hearing screening is a tool that helps us identify children who need further testing to either confirm or rule out a hearing loss. A hearing screening – very important to remember – is not a diagnostic test. And a hearing screening must lead to diagnosis and management for those identified with a hearing loss. Very – very important. Screening must lead us to find those children that have a hearing problem, so we can help them access the treatment or management options that they need.

Throughout the presentation, we're going to have a few of these slides just to highlight some new vocabulary. Hearing screenings are the detection tools that lead to early identification and diagnosis of hearing loss. So, why do we screen children for hearing loss? Basically because hearing loss is a hidden problem that we cannot see. Families and educators might not be aware that a child is deaf or hard of hearing just by looking at them or by interacting with them. Hearing loss can go unnoticed for months, even years. And hearing loss is more common than what we think. Just to give you an idea of how common hearing loss is, hearing loss is the most common birth defect in the US. More than 90% of deaf children are born to hearing parents. Approximately two to three out of every 1,000 babies born in the U.S. are born with a hearing loss. Those statistics are actually going to double by the time the child gets to the school system. We know that approximately 15% of school age children between 6 to 9 years of age have some degree or type of hearing loss. Hearing loss is common, and hearing loss has an impact on a child's development.

The first three years of life are the most important for a child's speech and language development. Starting from day one, babies begin to learn language skills by listening to and interacting with those around them. We call this incidental learning. That means that children learn language through interactions, overhearing and observing others. If babies and young children miss these opportunities because of a hearing loss, their language development can be delayed. And I want everybody to be reminded that language is the bedrock of education. We really want children to have the access they need to all the stimulation around them, so they can develop language at age-appropriate levels. Another thing to remember is that hearing loss

does not have to be severe in order to impact a child's access to regular classroom education. Even mild hearing loss can have a negative impact on a child's education.

Now, we're going to discuss all the reasons why we want to ensure hearing screenings happen in Head Start programs. Some children might have missed a newborn hearing screening and/or were lost to follow-up. We're going to discuss this in detail in the next slide. Some children might have ear infections and fluctuating hearing loss because ear infections – or otitis media – are common in early childhood. Some children might have progressive hearing loss – so they were born with normal hearing, but they lose their hearing in the first years of life. And some children might be overlooked when they attend the well-child visits, and there is only a risk assessment performed. No screening is performed in these appointments. I want to highlight that providing hearing screenings at Head Start programs can help us promote health equity by helping children access and receive quality of care. In the next slides, we're going to discuss these reasons in detail.

So, Universal Newborn Hearing Screening. The goal of the early hearing detection and identification system is to assure that all infants are identified as early as possible and that they receive appropriate intervention no later than 3 to 6 months of age. Why is this so important? Because research has shown that infants and families experience better outcomes when these benchmarks are met. The EHDI system has set up the 1, 3, and 6 goals. That means that every child should receive a hearing screening before the first month of age. Those that do not pass the screening should be referred to diagnostic services, and a diagnosis should be confirmed before the third month of age. For those that are diagnosed with a hearing loss, they should receive intervention services before the 6-months of age. The good news is that in the United States, 98% of babies that are born in hospitals are screened. So, 98% of babies born in the United States are screened at birth. So, those are great news. However, we are still working really – really hard to make sure that those babies that did not pass the screening access the services they need. Unfortunately, 30% of these babies are lost to follow-ups. This is a great reason why hearing screening services in Head Start programs are so important because 30% of the babies that was screened at birth were lost to follow-up. In other words, they didn't access diagnostic services. Another reason might be that if you're working with children that have been born outside of the United States, we don't have any record whether they were screened at birth, and whether they passed, or whether they need for their services. This is a great reason why hearing screening services in Head Start programs makes so much sense.

Another reason is because otitis media, which is a middle ear problem, is so common in early childhood. So, we have three types of otitis media. Otitis media, first of all, is a middle ear inflammation because of middle ear fluid. Your middle ear is the cavity behind your eardrum. It's connected through the Eustachian tube to the back of your respiratory system. That's why mucus from your nose, if you're congested, can travel to your middle ear. Then, if mucus sits there, which we call it middle ear fluid, it can obstruct sound from reaching the inner ear. Acute otitis media is a middle ear inflammation with middle ear fluid. Remember that fluid is pretty much mucus. Is symptomatic; the child will have either fever, pain, discomfort. This is the most common reason why families attend this at the pediatrician. We estimate that by 3 years of

age, 50% to 85% of children would have experienced one or more episodes of acute otitis media.

The next cycle of the otitis media – this one is the one that concerns us because otitis media with effusion doesn't have any symptoms because there is mucus, but there is an absence of infection. About 50% to 60% of children in child care centers will experience middle ear effusion or middle ear fluid sometime during the year. Because there are no symptoms, you wouldn't know that the child has otitis media at this point. Approximately 90% of children will have otitis media at some point before entering school, mostly between 6 months and 4 years of age. This is another reason why we want to conduct hearing screenings in Head Start programs. The next reason is progressive and late onset of hearing loss. Basically, this means that a child was born with normal or typical hearing. Therefore, past the newborn hearing screening. But later on, either acquired, or if the child was born with a progressive hearing loss, the hearing the hearing deteriorated in the following years. Studies have reported that neonatal hearing screening programs would not detect 10% to 20% of cases of permanent childhood hearing loss. Because of progressive hearing losses because of late onset and fluctuating hearing losses in early childhood, the American Academy of Pediatrics recommends that regardless of universal newborn hearing screening results and whether a child has any risk factors or not, every child should receive ongoing surveillance of communicative development in early childhood during well-child visits in the medical home.

However, I want to highlight that surveillance is only a risk assessment of communication disorders. Noise screening is conducted. Basically, what this tells us is that after a neonatal hearing screening and before the child enters the school system, children may not be re-screened. Children may not have access to a screening services during those crucial years in early childhood, where hearing is so important for their development and language and speech development. So, what we know, preschool … Because of this information that I'm sharing with you now, preschool hearing screening programs are recommended by the National Institute on Deafness and Other Communication Disorders. Head Start hearing screening programs have demonstrated the feasibility of these screening services. This is great news. This is why we want to implement these services within Head Start programs.

Now that I have told you all the reasons why we should be screening children for hearing loss in early childhood – if we fail to detect hearing loss in children, they may experience lifelong problems with speech and language development, academic performance, personal and social interactions, and emotional well-being. Research that uses quality-of-life measures shows that children with hearing loss have lower scores than children with difficulty hearing when it comes to quality of life. The quality-of-life measures are designed to determine how a child receives the social and emotional effects of their hearing loss. A hearing loss may inhibit a child from fully engaging with peers, family, and educators. Children with permanent hearing loss are at an increased risk of showing emotional and behavioral difficulties. And these difficulties may continue to their teenage years, especially for those children that have poor receptive language abilities. But the good news is that if children have access to intervention, quality of life improves. This is the main message. We conduct hearing screenings so we can identify those

children that have a hearing loss, and we can provide them with the services they need because this will improve their quality of life. This will make sure that they are ready to achieve their maximum potential and get them ready for school.

So, how do we do this? How do we screen children? Luckily, we have evidence-based tools to screen their hearing. The American Academy of Audiology recommends otoacoustic emissions for screening newborns, infants, and children, birth to 3 years of age, and pure-tone audiometry for screening children 3 years of age and older. So, let me talk to you a little bit about these two tools. Also, let me remind you that this webinar is an introduction to hearing screenings. You will have access to more detailed courses about specific aspects of human screening programs. Otoacoustic emissions do not measure a hearing, but they make sure the pathway for children to hear is functioning. It doesn't require the child's participation, so this is why it's so easy to use these tools in infants, and babies, and very young children. If the child is quiet, and the environment is a quiet environment, the test can be performed quite quickly. And it's an automated test, meaning that the screener will get a pass or refer result. Pure-tone audiometry, on the other hand, it's a test of hearing sensitivity. This type of screening needs the child's participation. It relies on the child's ability to follow directions. It also relies on the screener's experience to conduct the screening because you have to train the child and condition the child to perform the task. And then, once you've confirmed that the child understands the task, then you start screening. It might take 10 to 12 minutes to screen both ears. And then, as the screener, you need to record the responses for that test.

Here is another word: evidence-based. We've talked about evidence-based tools, evidence-based protocols. What it means is, evidence based is an umbrella term that refers to the use of the best research evidence and clinical expertise. "Research evidence" is what we find in the health science literature. "Clinical expertise" refers to what health care providers know. Basically, this is the best proven scientific knowledge we have on a given subject.

I have two videos here to show you quickly how the test is performed for those of you that have never seen it. In the first video, we are going to show otoacoustic emissions performed in a 1 year old. What you're going to see is the screener is placing a probe in the child's ear. This probe has two functions – one is going to play a sound into the ear, and then it's going to measure a sound that comes back from a healthy ear. The probe basically produces a sound, but it also has a microphone to record the sound that comes back from a healthy inner ear. Let me play the video. Then we're going to highlight a couple of things that are important to know in this video. I just want to give you the heads up that this child is super quiet. The environment is quiet. Don't be surprised if there is not a lot of noise happening, that you can't hear anything.

[Video begins]

[Quiet ambient noise]

Child: "No. No."

Screener: Yay! [Clapping]

Mother: Bravo!

Screener: Muchas Gracias!

[Video ends]

Dr. Ullauri: OK. What you can see, first of all, because the environment is quiet, the child is quiet, it took us less than a minute to screen one ear. So, that's great news. The other thing is that you can see the screener clipping the probe to the child's clothing, put it in the ear, then it falls off. You put it back in because it has to seal the ear canal. Then when the child is trying to take it out of the ear, you keep the child busy by putting a toy in their hands or something like that. Keep the child a little bit entertained, and done – the test is finished. Then the screener is going to see a "pass or refer" result on the screen. And now that you've tested one ear – you've screened one ear – then you can move on to screen the other ear.

Now, in the next video, we are going to see a 5 year old performing pure-tone audiometry. A couple of things to highlight here: You're just going to see a little glimpse of the video – the very beginning – because to conduct the whole screening of both ears will take 10 to 12 minutes. I'm just going to show you a little bit of that. Let me show you the video, and then we'll highlight a couple of things. You're going to see the screener here instructing the child. This is a child that is 5 years old – can follow directions. The child is going to be instructed to either raise his hand or maybe clap when he hears a noise. So, let's play this video.

[Video begins]

Screener: OK, when you hear the beep, raise your hand. Ready? Listen. Good job. Right. Let's listen again. Good job. All right. Good listening. There you go. All right. Let's listen. Good listening. Good job. Good listening.

[Video ends]

Dr. Ullauri: OK. A couple of things that you see in this video. At the beginning, when the screener is conditioning the child, she's making sure the child is paying attention. She says like, "Listen," "Wait for the sound," "Listen again." Then the child raises his hand in response to the tone. And then she reinforces that response. She motivates the child to keep playing this game. She does this a couple of times because she's making sure –she's not testing yet – she's making sure that the child is engaged, and that the child understands what the task is – what the task requires him to do. Very important that you condition first. And then, once you're sure the child understands, then you move on to screening. Again, this is just to give you a quick overview of how we conduct this type of screening. But you'll have more webinars to review – in depth – each one of them. Another thing that I'd like to bring your attention to is that many of you might have questions about conducting hearing screenings during the COVID-19 pandemic. I want to refer you to the ECLKC website. You can find their recommendations for performing hearing screenings safely doing COVID-19. Please be sure to check those resources. I think you're going to find them very helpful.

OK. So, now that we're moving into hearing screenings in Head Start programs, we want to highlight the Head Start Program Performance Standards, where we are going to concentrate on two main requirements. Number one, we need to ensure that we have up-to-date child health status. Number two, we need to make sure that children have access to extended follow-up care for those that need it. In requirement number one, about ensuring up-to-date child health status, that means that within 45 calendar days after the child first attends the program or receives a home visit, the program must either obtain or perform evidence-based vision and hearing screenings. If a program operates for 90 days or less, it has 30 days from the date the child first attends the program to obtain or perform evidence-based vision and hearing screenings.

So, when it comes to screening for these children, the timeline goes like this: The first screening is going to happen during those first 45 days, right? If the child passes the screening, no further action is required. By passing the screening, we mean the child passes the screening in both ears. If the child does not pass the screening, you need to re-screen. So, you're going to conduct a secondary screening two weeks after the first screening. Again, if the child passes the screening – and that means passes in both ears – then no further action is required. However, if the child does not pass the screening, you're going to refer the child to a health care provider. Why are we referring them to a health care provider? Because of what we've learned. Otitis media, middle ear fluid, are common in early childhood. Also maybe your wax buildup might be obstructing the sound conduction. So, those could be reasons why the child is not passing the screening. So, you're going to refer to the health care provider. When the child comes back after receiving appropriate services, we are going to rescreen the child a third time. If the child passes the screening, again, that means passing the screening in both ears, no further action is required. But if the child does not pass the screening, then we're going to refer this child to a pediatric audiologist for diagnostic assessment. Please be sure to check the hearing screening fact sheet that you can find in the ECLKC website. This is a great resource for you to learn more about this. What do we mean by the second requirement, that means access to extended follow-up care? The program must facilitate further diagnostic testing, evaluation, treatment, and a follow-up plan as appropriate by a licensed or certified professional for each child with a health condition. The program must develop a system to track referrals and services provided and monitor the implementation of a follow-up plan to meet any treatment needs associated with the health condition.

In this slide, I want to highlight again why engaging families in the hearing screening program from the very beginning is very important. Families need to understand the benefits of hearing screenings and the need for follow-up care. It also brings us back to what we discussed at the very beginning. This is a matter of health equity. Health equity means that a child can access and receive care. In Head Start programs, we need to make sure the program must facilitate further diagnostic testing, evaluation, treatment, and a follow-up plan. And the program must track those referrals and services to ensure that the child access those services.

So, I hope by now, you all want to start hearing screening services in your Head Start programs. We're going to talk a little bit more, again, a broad overview on how to implement hearing

screenings. First of all, we're going to discuss four different phases. In the first phase, you prepare. You analyze your situation and decide whether you want to go ahead and implement these types of services. Then you're going to plan. Later, after you complete your planning stage, you're going to implement those services. And later, you're going to review and make sure that the services you are providing – everything is working with them. And if there is need for improvement, you will be able to notice those opportunities at that point. In this first phase, when we are preparing, basically, we're just having a discussion to understand better, first of all, who are we planning to screen? By "who," I mean, do we have a Head Start program or maybe Early Head Start program? Because depending on the age bracket of the children in our program, we might want to use otoacoustic emissions. Or we might need to use pure-tone audiometry. This is very important for you to decide on equipment, staff training, and so on.

We also want to discuss a little bit about the resources we have available. For instance, are you conducting other kind of screenings, such as vision screenings? Do you already have relationships in place with local community health care centers? Maybe you already have relationships with local pediatricians. What kind of referral network do you have in place? It will also help you identify the new resources that you're going to need. So, you might need equipment. You might need to start those relationships with local professionals, and so on. But most importantly, in these very – very early stages, when you're just considering the idea of implementing hearing screening services in your program, I want to make sure and highlight the importance to, from the very beginning, start thinking on how you're going to engage families in this process.

Engaging families in the screening process is going to determine if you run a successful program. It's very– very important. That's why I want to bring this topic to your attention from the very – very beginning. When we provide family-centered services, we need to make sure we educate families about the benefits of hearing screenings, as well as the benefits of early diagnosis and intervention. We want to make sure that parents understand the importance of taking action when a child needs further services. And to do this, we need to acknowledge that health literacy and language barriers might prevent some families from fully engaging, learning, and understanding the information we share with them. When you're preparing to support families and put families in the center of everything you're doing, you need to consider health literacy and language concordance in everything you share with them. Education materials, any activities that share and promote hearing screenings. I love this quote from one of the family and community engagement webinars that says, "Family's engagement is everybody's business." Pretty much, this is something that we all have to do in every single opportunity. So, with that, I want to refer you to the ECLKC. There are great resources there on how to prepare to have challenging conversations with families and how to talk to families about developmental concerns that you may have about their children. Very important resources. Please be sure to visit the website and check them out.

Going back to our vocabulary slides. Health literacy. We've talked about that a little bit. So, what is health literacy? It means the capacity that one has to obtain, process, and understand basic health information that is needed to make appropriate health decisions. So, basically, we

want parents to be able to make informed decisions about their child's well-being, especially health-related decisions. So, it's very important that they understand the information that they receive. We need really to work on these to make sure that we are supporting them. We're not just giving them information, but we're making sure that they're benefiting from that information and that they can use that information to make informed decisions.

We're moving on. Hopefully, you've decided that this is something you want to do in your program. So, we're going to plan how to implement human screenings. We need to concentrate in four areas: equipment, staff training, space and supplies, and health providers. So, equipment, we need to decide what kind of equipment we're going to use. Again, this might be related to the age of the population that you're going to be screening. You want to get the specifications on the different models, quotes for this equipment, so you can adjust your budget. You want to make sure your staff is trained. So, they've completed the technical training on webinars. But they've also had an opportunity to complete hands-on training. That means that once you receive the equipment, they had an opportunity to play the equipment, use the equipment for testing others, maybe test a couple of children. Just make sure that they're very – very familiar with it. Also that they've completed the training to work with families, support families, educate families, and so on. Remember that engaging families is at the core of the hearing screening program. You want to make sure that you have the right space. Especially if you're running pure-tone audiometry, you want to be doing that in a quiet space. So, you also may identify that some different times during the day are quieter than others in your Head Start program. So, you may want to check that. You decide sometimes during the day might be more suitable for the screening to take place. You want to make a list of all the supplies that you are going to need, get quotes, so you can plan your budget for annual supplies.

Then, health care providers. You want to have a list of local pediatricians and audiologists that you're going to work with. Hopefully, you can get a local pediatric cardiology to be an advisor to your program. They can help you choose equipment, troubleshoot equipment, help you maybe answer some questions related to referrals, and so on. So, very important to have a local partner. If you don't have those connections yet, then we need to start making those connections. Hopefully, once we move beyond the pandemic, you can make these personal visits, connect with them, meet them, talk about your program. You want to establish a referral network. So, going back to what we talked at the very beginning, very – very important. It's not only about screening. Screening must lead to an early diagnosis and intervention. So, you need those partnerships at a local level where you're going to refer the children.

So, who are audiologists? Audiologists are people like me. We are health care professionals that specialize in hearing and balance problems. We diagnose and manage hearing loss in infants, children, and adults. So, the date came. You're going to implement your hearing screening program. You have a start date. You want to make sure these three things are in place. You have everything to engage families. So, they understand the benefits of screening. They understand what the results mean. Remember that screenings are not diagnostic testing. So,

parents need to understand that. They also need to understand the need and the benefit of follow-up services for those children that need them.

As far as the screening itself, you want to make sure staff is trained, equipment is ready. Equipment is in place. You have a place where the equipment is going to leave in your program. You have supplies. You have forms – and by forms, I mean you have where you're going to record results – referral forms and letters for pediatricians, letters for parents. You have space and time that you've recognized are most appropriate for hearing screenings. As far as results and referrals, you have a way to track children that need to be re-screened, children that need to be referred, and what the results of those referrals are, and how you're going to be supporting those families while they access those services. Last, since you have been running a hearing screening program for some time, you want to make sure that you always track outcomes. You want to make sure that you are making sure your program is working well and that children and families are benefiting from it.

So, I'd like to refer you to a great webinar on the ECLKC. It's called “Measuring What Matters.” Basically, you're going to prepare to review your program. You're going to collect data. You're going to analyze that data. And then you're going to share that data with your staff to make sure that everybody's on board. If there are opportunities to improve the quality of your program, you can recognize those opportunities at the right time, and you can make the adjustments needed. So, what do you want to collect when it comes to tracking outcomes? You want to collect pass and refer rates. These are very – very important because we have benchmarks that you can compare to. If 50% of the children you're screening are not passing, that's a red flag. Something is wrong because that shouldn't be happening. Either maybe the equipment is out of calibration, maybe somebody dropped the equipment, maybe you're testing the children in a very noisy environment, but something is happening. Tracking your pass-refer rates is extremely important, especially for troubleshooting.

You also want to track follow-up rates because you want to make sure that children are accessing services. Remember that that's a key part of the screening programs. You want to avoid to screen children, and then they're lost to follow-up. You need to keep track of where the children are being referred and what the outcomes of those appointments are. Basically, was a problem identified, and was the problem resolved? And then for those children that are diagnosed and need services, you want to make sure that they are accessing those services. This is important because I want you to remember this when you meet and connect with your local health care providers. Because you want to make sure the children are not only accessing services, they're accessing quality of services. Meet with the providers. Choose the best providers where you're going to be referring these children. Remember, this goes back to health equity. It means that children have to access care, and they have to access quality of care.

I think we're coming up towards the end of our presentation. And I know we've covered a lot of information. These are three take home messages I want you to take with you from today. Hearing screenings must lead to early identification and intervention for those children with

hearing loss. You cannot do that unless you engage families from the very – very beginning. You need family engagement in order to meet those goals. Just remember that screenings are not diagnostic tests. They are only a tool that hopefully will lead you to a diagnosis. So, very important to share these with families because you want them to know that follow-up services are very important, but you don't want to cause an alarm until they access the services they need and in the case a diagnosis is confirmed.

I know we've covered a lot, but thank you so much for your interest and for wanting to perform hearing screens in your programs. Thank you, Steve. I think we have some time to take some questions.

Steve: We have a few minutes to answer questions. They've gotten about 40 of them. Let me just go to the question slide. And let me see if I can grab some of these questions. There were a lot of questions about otoacoustic emissions screening. Can it be done on older children? Can it be used with uncooperative children? Do you need to be certified to do OAE? Can you respond to some of those?

Dr. Ullauri: Thank you, Steve. That's a great question. Yes. Otoacoustic emissions can be performed in children that are older than 3 years of age, that for some reason are not able to perform pure-tone audiometry. Great question, and thank you for bringing me back to that point. The other question was?

Steve: Do you need to be certified to use an OAE on a child?

Dr. Ullauri: As a screener, you don't need, but could you help me with that answer as far as Head Start program, Steve?

Steve: Sure. So, we want people to be trained and familiar with the equipment, to know what to do with the equipment and what to do with the results, how to read the results. But you – in most states, you do not have to be certified to perform a hearing screening. There are a few states where only an audiologist can perform or is reimbursed for performing a hearing screening. But for the most part, you can do that with some training. And a manufacturer of the equipment can help you access that training or whoever you purchased the equipment from. There were a lot of questions about purchasing equipment. We can't make any recommendations. But any health or school supply company that you currently work with can probably refer you to the right distributor.

Dr. Ullauri: Thank you, Steve.

Steve: Oh. More questions. Yes. Now the questions have bumped up to 50 of them. Let's see if I can get some different ones. Should we be doing screening every year?

Dr. Ullauri: Yes. Great question. Remember, that children might have – children are at a high … That's a great question. Let me just go back to some of the slides if I can. Yes. So, remember that otitis media middle ear fluid can happen any time between a child is born and 5 years of

age. Children in that age bracket have a high prevalence of otitis media. And the main thing we care about is because otitis media with effusion has no symptoms. A child might have a hearing loss because of fluid in the middle ear, and you just don't know it. We know that 90% of children are going to have some kind of episode sometime before they enter the school system. We also know that 50% to 60% of children in child care centers will have one episode during the year. So, yes, we should screen every single year. Another reason is because if a child has a progressive hearing loss, you don't know when that's going to happen. That's another reason why we should do it. Another reason would be if a parent … So, that child has passed the neonatal hearing screening. The child passed the hearing screening at the Head Start program last year, the day after, but now the parent has some concerns. The parent or the teacher – somebody says, "Something is up." The child maybe is not behaving as well as he was before. He's not engaging. He doesn't seem to be enjoying some activities. If somebody has a concern, you have to screen.

Steve: Thank you. Thank you very much, Alejandra. We have no more time for questions, but we will try to respond to many of you that sent in questions. We'll respond on MyPeers. You can always write to health@ecetta.info.

Can you advance the slides, please, Alejandra? Keep going. Keep going. It's important. People are asking for the resources and the evaluation. I want to make sure that we get there. OK. The evaluation is here on the screen. It is in the chat. It will pop up on your computer or device as soon as this webinar closes out. It is also linked on the handout that I just put into the chat. You can open that up. It's a Word document, and it's linked there. There are four different ways to get the evaluation. You should be able to grab that. Recording will be sent out within the next 24 to 36 hours along with the handout for anyone that registered, as well as all of you who have participated today. Next slide, please.

I want to thank you all. This is a link to our monthly resource list. If you don't currently subscribe, you can do that. Next slide. And most importantly, you can find all of our resources on the ECLKC, and write your questions to health@ecetta.info. We thank you, Dr. Ullauri, for this incredible information. The participants were wonderfully engaged. We had more than 1,200 people asking questions and giving information to each other. We're so grateful. The link to everything will be in your handouts and in the recording. One more time, I'm going to put the evaluation into the chat. Again, it will appear as soon as we close down the webinar. Thank you to Barbara and Kate who are running the show behind the scenes. Yes, I want to echo Dr. Ullauri's comment. Thank you to everyone.