Helping Families Accept Technology

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Editor’s note: This is a transcript of the live seminar presented on March 18, 2011. To view the course recording, register here. In addition, this was one seminar in a week-long virtual conference entitled, Pediatric Audiology– Raising the Bar. To view the recordings of the other courses in this series, you can register here.

What does “accepting technology” mean? In this week’s virtual conference at AudiologyOnline, it is really helpful that Dr. Flexer discussed brain development and Dr. Whitelaw talked about auditory processing and knowing how well a child is processing sound. Dr. Wolfe’s presentations covered fitting hearing aids and cochlear implants to children. But none of this information is useful if we are not able to get the children to wear the devices. Anybody who has ever fit a pediatric hearing aid knows that patients and families sometimes resist technology, and they have reasons why they think it is not going to work for them. Although we may know that the hearing aid or cochlear implant is the right way to proceed, we need to help the families accept the situation.

When a family or patient is getting hearing aids for the first time and they do not accept technology or question the need for it, is this really about the technology? Or is it about accepting the hearing loss and anticipating the challenges the child will face for being “different” from other kids? From a parent's point of view is it about accepting the child? Is it really a question about the technology, or is it a question of disability?

We need to understand what the parents are saying, as well as the children themselves as they get older, and what they really mean by their statements. We also need to know what they are not saying. In order to help parents accept technology, we need them to accept that they have a child with a hearing loss and that technology is part of the journey. That is where the issues lie. In order to look at this, we need to look at how we feel about hearing loss, because our message is a big part of the entire message that parents are receiving.

What Do We Believe About Hearing Loss?

I have been diagnosing hearing loss in children for 45 years. Every time I diagnose a hearing loss I truly feel sad. I feel sad that the child and family are going to have to work very hard. But, on the other hand, I am very optimistic about what is possible for the child. Even in the days before we had cochlear implants, I believed deaf children could succeed, and my belief in the potential success of a deaf child was transmitted to the family, which I think made all the difference in the world to them. With today’s technology, virtually every deaf child with the proper intact anatomy intact is capable of hearing, so we should be optimistic about what is possible. Many audiologists are overwhelmed by the sadness of giving a diagnosis and explaining the road ahead so they do not express the optimism about what is possible to families. Or maybe they are afraid to encroach on the sadness of the family and appear optimistic. At any rate, if we do not appear optimistic and full of hope, we cannot help the parents be full of hope. We need to think about what our message is when we talk to families in order to help them get through the crisis that they are facing.

In graduate school many of us read the essay "Welcome to Holland" by Emily Perl Kingsley, about changes in plans. In this essay, the family plans a trip to Italy, reads all the Italy travel books, studies Italian food, has their reservations and accommodations set, and when they arrive and get off the plane they find themselves in Holland. While Holland is lovely and has wonderful things, it was not what they were planning, and they are disappointed. This essay is meant to help us understand what is involved when families get a diagnosis of a disability. It is not
that they do not love their child, and not that they will not have a wonderful journey, but it was not where they were planning on going. We need to be optimistic about what is possible for hearing loss and believe it! Today, everything is possible for children with hearing loss.

**Acceptance of Technology**

There are steps that we as audiologists need to take for ourselves in order to better help families accept hearing loss and the technology that goes with it. First, we need to deal with our feelings about a child with a hearing loss. We need to have sympathy but also embrace the optimism. We need to help families deal with their grief. That means we have to accept the fact that they have grief. We also need to accept the fact that the children, as they get older, are going to develop some grief, and we need to help them work through it. Sometimes that is something we can do by ourselves and sometimes we need to get help.

Be mindful that having a child with hearing loss is not something parents plan for. This is not the “perfect” baby they anticipated. We need to give parents the opportunity to express their grief. Some families understand what is possible for children with hearing loss today and some families do not. Most families do not have experiences of children who have succeeded with hearing loss. When you identify hearing loss, they think, about their elderly relatives who have not done well with hearing aids, and who claim they still cannot hear with hearing aids on. Often, what they think about hearing loss is negative, and, as a result, they have trouble dealing with what is going to happen to their child. This is where we can significantly help their understanding. We can help them understand that this is a different world than it was even a few years ago, and that there are many, many options for children with hearing loss. It is imperative that we listen and let them grieve, but we cannot let it interfere with their moving on.

How many of you have had families that refused hearing aids initially because they could not deal with them? On the other hand, we all have had families who, as soon as you say to them, “Your child has a hearing loss,” they respond, “Tell me what to do.” They are immediately ready to move on. These families are easier in some ways because we can get the hearing aids fit right away, but we also have to recognize they may also be going through grief, despite their motivation to proceed with treatment. The families who are unable to accept a hearing aid right away need a little more time, but we do not want to wait too long. My mentor, David Luterman, may disagree with my approach. We do not disagree on many things, but I tend to favor the more aggressive side with the view that we need to get the hearing aids on as soon as possible because we are concerned about auditory brain development. David approaches this subject more gingerly and feels it is appropriate to wait as long as it takes for the family to be ready to move. I think sometimes a little waiting is okay, but a lot of waiting is not. It has been my experience that when we explain to the parent why a lot of waiting is not good it can help them to move forward.

**Dealing With Parents Who Cannot Move On**

We have to identify the reasons behind families not moving on before we can provide a solution to help them accept technology. Is it that they are feeling overwhelmed? What about “I can't deal with one more thing. The baby doesn't sleep for more than two hours at a time so I'm not sleeping at night. I'm completely exhausted. I can't even keep the diapers organized. How am I going to deal with hearing aids? She's so little. How am I going to get them on her?” These are the kind of conversations parents have when they are overwhelmed.

Are they getting family support or interference? Grandparents are generally involved in some aspect. I cannot tell you the number of grandparents who have said, “Can't it just wait?” To give you an example, I have a family with two small children with hearing impairment, who are from a culture where marriages are arranged. The parents of the children had unmarried siblings. The grandparents of the children with hearing impairment did not want them to wear hearing aids because they were afraid
that they would have a hard time arranging further marriages in the family. These parents were stuck in a situation of wanting to provide for their children, while feeling that they might sacrifice the support of the grandparents and negatively affect other their siblings’ chances of marriage.

What do they families know about hearing loss in children, and what has been their past experience? Hear what they have to say, and you may find that that what they think they know is no longer true. Times have changed. We also need to know if both parents are in the same place mentally and emotionally. Frequently they are not. One parent may be ready to move on while the other parent is still coping with the diagnosis. We do not want to get in the middle of parental disagreements. This is a time when these two people need to provide support to each other but we can help them move in the right direction without interfering by asking questions. We have to say, "Tell me what's going on. What are the things you are feeling overwhelmed about?" If they do not give any answers, have some suggestions. "Is it the difficulty of dealing with a new baby?" "Are you worried about how other people in the family are going to deal with this hearing loss?" "Are you worried about neighbors and what other people will think?" Let them say it. Frequently, just being allowed to verbalize what is going on helps to relieve the stress and helps them get ready to move on.

Because the diagnosis of hearing loss is often unexpected, we need to provide support for emotional issues. That means we need to provide help for the parents to support themselves. Some parents do not want to spend any time on themselves. What they do not realize at the time is that they need to take care of themselves so they will be able to take care of the baby. They need some time off from the demands of the baby. However, they very much need to understand why the technology is important. In my experience, I have seen very few parents who did not come around once they really understood why we needed to fit technology. It is very helpful for most families to meet other parents who have been at this stage along the journey and now have older children so they can see that there is light at the end of the tunnel. If we can help arrange parent support groups or meetings, families can see there is hope. It is important that as we project optimism and build hope that we place technology in the right framework.

I spent the month of January on a charity mission in Vietnam testing children and teaching pediatric audiology. In some centers, parents brought children in without their hearing aids on. That happens in the United States every day. How many times can you recall that children have come in for evaluations and they are not wearing their hearing aids? What does this tell you? It tells me first that the parents do not have the conviction "my child needs to wear hearing aids." What is the goal for the child? When we ask this to parents it gives them a frame of reference and a mark to look towards. If they say, "I want my child to talk and go to school with their siblings." I discuss what skills do they need to do that. Listening and spoken language are essential if you want your child to go to a mainstream school. How do you get listening and spoken language? We acquire spoken language through listening. Hearing aids are the avenue through which a child can listen. We have to be able to get these kids to wear their hearing aids FULL TIME if we want them to listen and talk. Sometimes you have to say that many times out loud. Parents need to understand the goals and they need to be reminded that attaining these goals is a step by step process. If their goal is listening and spoken language, you have to figure out a way to get the hearing aids on the child full time; otherwise, they will not achieve their goal.

Why is Technology Important?

How do you access the environment around you? How do you learn spoken language? How is the auditory brain developed? The answer, obviously, is listening - listening to the broad spectrum of sounds all around us. For children, a great deal of what language is developed through incidental learning. If a child is hearing only what someone is saying when directly in front of them, they are getting only about 10 or 15% of the information that they need to learn. They need to be able to hear conversation all around them, even things that may not seem important to the
conversation. I remember when the mother of one of my patients who had received a cochlear implant called me and said she was on the front porch talking to her husband and the child came from the living room, walked out to the porch and said, “Why did you tell Daddy that?” The mother was stunned. For the first time in this child's life, he had picked up something that he had overheard from a distance that was not directed at him. Overhearing has a huge impact on everyday learning. It builds vocabulary. It gives children grammar. It gives them general knowledge. It gives them all the things they need to develop their brain. If they cannot do it, they are going to be missing a great deal. For children with hearing impairment, technology is a way to access the environment. You need to remind parents that we learn spoken language through hearing, and it will help them buy into why they need to use technology.

Technology is a brain access tool. That is why we use it. It gives the brain auditory access it would not otherwise have with a hearing impairment. We need to remind ourselves that technology, in and of itself, is not frightening to today's parents. They have computers. They have cell phones. Although they say that the technology is the problem, it is not the real issue. We need to remind parents that they use technology in all different forms every day, so resistance to using hearing technology cannot be the real underlying issue. Hearing aids and cochlear implants may seem complicated at first, but they are actually much easier to use than today's cell phones and computers. It is an excuse, but that does not mean we should discount what they are saying or their emotions. Give them a chance to express their views and offer sympathy, but do stress about the importance of time. Time is critical because every minute that a child does not hear is a minute that they do not make up.

**Support**

There are many ways to provide support. Parents will get support from us, of course, but the people who are better able to provide support are other parents with children who are a little bit older and who have been successful in using hearing technology. For parents to be able to ask other children how they felt or how they managed in school helps tremendously. Talk about the desired outcome over and over. Present the question, “What is your goal for your child?” very often and make sure to offer empathy so they feel reassured that you are there to help them reach that goal.

Parents need to experience success with the technology. If they are not experiencing success then they cannot justify putting themselves or this baby through the demands that you are requiring of them. They need to see responses from the baby. I recall one family where the mother was resistant to putting the technology on the child, but her husband was ready. It took me six weeks of working with them to get the hearing aids on the child. I received an e-mail from the mother two weeks after the hearing aids were finally fit telling me that the baby had turned to her when she called. The baby made a quick head turn so that she knew for sure that the baby heard her. After that success, this mother was in.

How can we ensure successes like this? We need to make sure the technology works. Size is not the issue. While we would like for all children to fit into the smallest hearing aid available, the smallest hearing aid is not the best if the child is not hearing well with it. People think they need to put tiny hearing aids on babies, and while cosmetics are an issue, we really need to focus on exactly what the child is hearing and not the size of the hearing aid. Good auditory access is the issue. And that means the child needs to hear everything, not just a little bit. We need to be very careful not to underfit the amplification. There is some data coming out of NAL in Australia in this regard. It is very critical data because if children are underfit and therefore not hearing soft speech, than they are not hearing from more than six feet away. This means they are missing a lot of incidental learning, which will also impact their auditory brain development.

Aided thresholds need to be 20 to 25 dB throughout the high frequencies to ensure that soft speech will be audible. Probe microphone measures can tell you what sound is reaching the tympanic membrane, but it does not tell you what is reaching the
auditory brain. The only way I know to do that is to look at aided thresholds. If you can get behavioral thresholds using a conditioned head turn for VRA or using changes in sucking for a baby under 6 months of age, then you can use it to obtain this same information with the child wearing the technology. It is important that the parent can see the child responding.

**Keeping Technology On**

Keeping the technology on is very important. In addition to ensuring consistent access to sound, keeping the technology on is important, because if it keeps falling off, parents feel like something is wrong. Here are a few strategies to help ensure early success.

**Figure 1.** Hannah Andersson pilot cap.

Pilot caps (Figure 1) from Hannah Andersson (www.hannahandersson.com) are a great way to secure the hearing aids so little hands cannot take them off. These caps are lightweight cotton and acoustically transparent so there is little or no attenuation of sound to the hearing aids through them. You can buy them in different sizes and colors and offer them during your hearing aid fittings for babies.

**Figure 2.** Critter clips from Westone can attach to the child’s shirt with a lanyard.

Critter clips (Figure 2) attach with a clip to a child’s shirt. There is a cord with a rubber band that goes around each hearing aid so that when the child pulls the
hearing aid out, which inevitably they will, it stays attached to their shirt instead of falling on the floor.

**Figure 3.** Huggie Aids for hearing aid retention.

Huggies (Figure 3) have been around for quite some time and were once the staple of hearing aid retention. They are not so great for little tiny ears, but they work well with bigger ears. The plastic ring fits around the child’s entire pinna with the smaller bands wrapping around the hearing aid behind the ear. With today’s smaller technology, you can get away with using only one of the bands and cutting the other off.

Parents and teachers need to understand that in the first few weeks after the fitting they need uninterrupted time to spend reinforcing good hearing technology usage. This means putting the hearing aids back on the child’s head any time they come off. I say to parents, “Don’t worry about getting dinner. Dad may have to bring dinner home when he comes back from work. Don’t worry about cleaning the house. Somebody else is going to have to do that. Your job right now is to get the hearing aids to stay on this child’s head.” Even little kids need to learn that only Mommy or Daddy can remove the hearing aid. Under no circumstances can the child remove the hearing aid. If the child removes it, it has to go right back on. It is very easy when the child pulls the hearing aid off for parents to say, “I’m going to wait a while.” But the message we are sending that child then is that it is okay for the child to remove the hearing aid, and it is okay not to wear it.

If this is an ongoing problem, we need to find out why this baby is taking the technology off. Is it situational? Is it a tool to get attention? Is it because the child get bored and has nothing better to do? Or is it real discomfort? We need to figure this out before we assume that it is discomfort and reduce the output or modify the hearing aids in some way. There are many situational variables. The example was given earlier this week in Jace’s presentation is that some children prefer taking hearing aids off in the car. Maybe the child is pulling the hearing aid off because it is too loud; but more likely it is because there is nothing going on in the back of the car and they are a little bored. It may take someone else in the back of the car playing with the child to keep the hearing aids on. In this situation, we may want to consider using an FM system. As soon as we fit an FM system, mom can be sitting in the front of the car talking or singing to the baby, and chances are the hearing aids will stay on a little bit longer because the baby is occupied.

**Helping Older Kids Accept Technology**

I think it is important to remember that when we identify hearing loss in a baby we
do a lot of counseling and education with the parents. Once the children are a bit older, we need to do some education with them also. We cannot assume that the parents are going to explain hearing loss to them. When a child gets to be five or six we need to start talking about hearing loss and helping them to understand what it means. This includes how to read the audiogram, what the audiogram results mean, why we are asking them to wear hearing aids and what they get out of the hearing aids. There comes a point where they have to buy into it or they are not going to do it, either. I remember the first time this hit me. A family that I had been working with for five years since their son was born was moving to another state. They came in to wrap up paperwork and make sure the equipment was working. At the end of the session, I turned to this little boy and asked, "Do you have any questions for me?" And he said, "When will I be old enough that I won’t need hearing aids anymore?" I was stunned. I realized then that I had not helped him understand his hearing loss. His parents knew he was going to wear hearing aids for the rest of his life, but nobody had explained this to him. It changed the way I counseled from that point forward.

I started showing test results to children once I thought they had enough language to understand what hearing aids did and did not do, and why they need an FM. Children often say to that, "I think this stinks!" And I reply, "You’re right. It does stink!" But they understood why they have to do it and so they do it. So I think that we need to remember that once kids start resisting hearing aids, it is not a rational decision but an emotional one. They do not want to wear hearing aids because they do not want to look different. We do need to give them sympathy. I had a child come in for an appointment after school at 4:30 and say, "I don't want to do this now. All my friends are going out for pizza. I couldn't go because I had to come see you for a hearing test." And her mother said, "Don't complain to Jane." I said, "No, wait a minute. She is allowed to complain. It actually stinks that she has to come have a hearing test when everybody else is going out to have pizza." We need to let these kids express their anger and let them get through it. They are entitled to be annoyed. Offering our sympathy and our understanding is critical.

So what should children understand about hearing loss? I think that they need to understand the audiogram. They really need to understand what speech perception is and what is an acceptable score. If I am performing speech perception testing on a child who is refusing to wear an FM system, I show him what he is getting with and without the FM. Say he scores 56% correct without the FM system. I say, "Would that be good enough on a math test?" They look at me like I am insane. How could 56% be a good score on a math test? I say, "If it is not a good score on a math test, why is it acceptable on a speech perception test?" That really helps everybody to put it into perspective and focus on a successful outcome.

We also need to talk to older children about auditory brain development. We need to demonstrate performance. When I test children, I plot their scores on a table, so they can see how they perform in different conditions. If they are a binaural user, I will test left ear only, right ear only, binaural, and binaural + FM. You have to test with the FM for anybody who has even the slightest resistance to using their FM system. They need to see the advantage. I test at normal conversation (50 dBHL), at soft conversation (35 dBHL), and in noise at normal conversation (50 dBHL) with a +5 signal to noise ratio. The reason I test in all these conditions is because you have to hear in all those conditions to succeed in this world. I test speech perception unaided at normal conversational levels in quiet, even though I know they are going to do terribly, but these children and families need to see the improvement with the technology over the unaided condition. This is a way to quantify hearing loss to children. "You have 43% for soft speech without your hearing aids. Is that a good score on a math test? So it is not a good score here either."

If you make a table for all these conditions, it makes counseling very easy because the answers are right in front of you. Secondly, it helps you to see at a glance whether a child is doing well enough or whether you need to move on to other technology options such as changing hearing aid settings, moving to more powerful hearing aids, or considering a cochlear implant. And thirdly, it significantly helps both
the child and the parents understand the reality of the child’s hearing. By presenting the objective information, you can ensure that any refusing to use the technology has nothing to do with a lack of information.

Discuss with the families what it means to not hear soft speech and not to hear well in noise. While the scores can tell us a lot, they do not describe exactly what the children are missing. For older children who start refusing technology after years of use, we need to look at the academic record, and then we need to negotiate. Figure out which classes they absolutely have to hear best and make a deal with the children. That sometimes works. Ultimately, you need to get the parents on board. The fact that we told parents the importance of the technology when the child was 6 months old does not mean they will remember it when the child is 10. We need to go back and make sure that they have all the information and will support our recommendations. If I make a deal with a child and mother says, “You don’t really have to do it,” then where are we? If the parents are still grieving, progress may be delayed, and we need to take a step back and deal with the grief first. Parents grieve when the hearing loss is first diagnosed, and grieve again at significant points in the child’s life: starting school, moving to middle school, adolescence etc. Counseling is ongoing.

With any child with a hearing loss, we have to determine who is the boss in the household. An important question you can ask a family with a child who is refusing technology is, “Who is the boss in the house?” Frequently these parents laugh and point to the kid. Let’s think about what that means. It is important to set the rules and limits in the beginning, not only for hearing aid use, but for overall development and behavior. This may not be in our job descriptions as audiologists, but if you are a pediatric audiologist, you really need to pay attention to it, as it will impact the child’s success. We may need to help parents set limits on behavior.

We know today’s technology works. We know it can develop the auditory brain. Every single one of us needs to believe that this is possible. We need to help parents to believe it, and we need to help children believe it. When we all believe it, we will be able to do the work that is required to help children reach their hearing potential.

Question & Answer

**Editor’s note:** For the Q & A section, Dr. Madell was joined by Dr. Carol Flexer and Dr. Jace Wolfe, who presented other courses in the Pediatric Audiology – Raising the Bar virtual conference.

I see a family with two daughters who were identified with mild to moderate hearing losses in first and third grade. These patients are high academic achievers and parents are very resistant to hearing aids. Dad also has hearing loss and has not worn a hearing aid and has achieved much in his life. What do you recommend regarding counseling when language continues to be well above the average range, yet I know potential is not maximized without hearing aids?

**Jane Madell:** I have seen many families like this where the parent has a hearing loss as well. In many cases when the parent has a hearing loss, they are much more resistant to making the children use hearing aids. There is an extra guilt trip that lurks in there. I would go into the test booth, and test these children using recorded stimuli. Perform word recognition testing at normal (50 dBHL) and soft (35 dBHL) conversational levels in both quiet and noise. If these children score 90% or better in soft conversation, then you don’t have an argument. But I’ll bet these children are not hearing well for soft speech in quiet, let alone noise. Then you need to have a discussion with the parents about how much they want their kids to struggle? It may be useful to suggest that kids do not need to struggle and that we can make things easier for the children that was the case for the parent growing up with a hearing loss. See where you go from there. Jace or Carol, do you have anything you want to add?

**Carol Flexer:** I would also talk about social emotional development and peer
interaction, because hearing is not only for academic achievement. It is also for having peer interactions and being able to participate in conversations, especially when there are multiple people engaged in a conversation. These children are just in first and third grade, but there are social issues that will arise. And they will be even more dramatic as the child gets older. But being able to negotiate, to compromise, to understand sarcasm, they have got to have access to soft speech and to be able to overhear. Hearing is very important for their social development as well as for academics.

Jace Wolfe: I have families who fit this bill exactly. It is tough. I don't know that there is an easy answer for it. One thing that has struck a chord with families I counsel is asking, "How hard do you want your child to have to struggle?" as Jane mentioned, and then talk about the concentration that is going to be required to fill in the gaps of things they miss because they can't hear all the nuances of conversation. At the end of the day the child is going to be exhausted. Oftentimes parents can identify with that because they can think back to when they were in school or even at the end of the day now with or without hearing loss and how tuckered out they feel. Just talking about the extra effort that is going to be required is something I have seen to be successful in helping parents commit to having the child wear technology.

I have a two-year old patient with a profound hearing loss whose parents are also Deaf. They do not use hearing aids and communicate only through sign language. They do not want a hearing aid for their child. Is that their decision? What can we do?

Jane Madell: That may be the hardest decision we ever make as audiologists. First of all, I think that we need to tell parents that we are not saying that this child shouldn’t sign, because obviously this child should sign. He lives in a Deaf community. But the Deaf community is shrinking, and this child is not going to have peers who only sign. We know that the schools for the deaf are closing or getting much smaller. Most children who are deaf are being mainstreamed now because the technology is available to make that happen. I think we need to say to this family, "What is your goal?" The reality may be that your child will have fewer peers, because there are very few deaf children left who don't communicate in the hearing world in some form, and your child may have limited job opportunities. While the family should make the decision for their own child in their own culture, we also have to educate families realistically on what impact their decisions may have long-term.

Carol Flexer: First of all, I love your idea, Jane, of asking questions to the family about the situation. We might be asking them questions about where do they see their child living? Where is the child going to attend school? What do they think the world will be like for their child? This can help us see if the family has a current perspective or one like it might have been when the parents were growing up in the 1980s. What is their true perspective?

Jace Wolfe: I agree. I think obviously the family's culture and wishes should be respected, but I also think this is an opportunity to be positive and optimistic, like you mentioned earlier, Jane. A deaf child has the opportunity now to be successful in both worlds, and if they would choose hearing technology, be it either hearing aids or a cochlear implant, we need to provide support to ensure that they’re going to have an enriching auditory lifestyle. If they’re at home all day for the first three or four years of their life using primarily sign language in the home, obviously they’re not going to hear the 46 million words that Carol spoke about in her presentation that a child needs to hear before they’re four years of age to develop good spoken language. There are ways to be successful in both the Deaf culture and in the hearing world as well.

At what age can we begin to use an FM system?

Jane Madell: You can start using an FM as soon as you successfully fit a hearing aid, allowing some time for the child and family to get used to it. If the child has a severe to profound hearing loss I would probably put an FM on within a couple of weeks. For
a child with a mild to moderate hearing loss I might not use an FM in the first few months. But as soon as a child is moving away from the parent on their own, starts to crawl, or is not in the parents’ arms anymore, that child needs an FM system.

**Jace Wolfe:** I agree. Even though it is not as complicated as a smart phone, I do think it is overwhelming to introduce hearing aids and an FM system all at the same time. We typically fit the hearing aids one day and schedule a follow up appointment in a week. At that follow up appointment we often introduce the FM system. It used to be that we needed to wait until the baby’s neck grew so it could accommodate the length of a hearing aid and FM receiver, but now with technology being miniaturized like it is, I don't think it is a concern any more.

*In your experience, who pays for the FM systems?*

**Jane Madell:** It varies. For example, in some states the families would have to purchase them. In New York, Early Intervention pays for FMs. So I don't know what to say about it. I think this is different state by state. But I would suggest that in whatever state you are in, if FMs are not covered, then audiologists and parents need to get together and advocate this to the payor source as part of the technology a child needs. If the source is paying for hearing aids they need to pay for FM as well.