

Beyond Bottles and Baby Food: Setting the Nutritional Foundation for Lifelong Wellness

Laura Annunziata: I'm Laura Annunziata Senior Training Specialist with the Early Head Start National Resource Center Zero to Three. Today I'm pleased to be moderating this presentation, the third in a series of webinars developed as part of the "Little Voices for Healthy Choices" initiative. We have two presenters with us here today. Paula Mydlenski who is Technical Assistance Specialist with the Migrant Head Start TA Center with the Academy for Educational Development, and Sylvia Zwi teaching artist with the Wolf Trap Institute for Early Learning Through the Arts.

Today we will be sharing about an hour's time with you focusing on nutrition. Particularly, as it relates to infants and very young children. We're joined on the phones and via computer by many programs today, as well as, technical assistance and federal staff, staff from the EHSNRC, our partners and others interested in the Little Voices for Healthy Choices initiative. We send a big hello to all of you out there today.

Both of our presenters have lots of experience thinking about and working with the children in our care so we're pleased to be able to share their time today. I'd like first to turn you over to Sylvia Zwi. She'll start us off this afternoon with a fun music experience. It's a piece called "Healthy Food."

[Music and Singing]

Sylvia Zwi: Could you open the lines for us because I would love the participants to join me? [beeping]. All right. We'll try this; for the first two verses repeat after me. When it comes to the food items just join me.

[Music and Singing]

Laura: Thanks Sylvia. And you all sound great out there. Don't be shy. Please join in. We're going to have a lot of opportunities to accompany Sylvia for chants and songs today and we'll need your help throughout the broadcast [beeping].

We're going to take a break for a moment which gives me an opportunity to introduce today's speaker Paula Mylenski. Paula's joining us today from Florida. She's a very experienced trainer who spends

quite a bit of time on the road. So some of you may have met...had an opportunity to meet her or hear her before. Today, she'll be discussing nutrition her area of expertise. I'm pleased to welcome her here to this event today. Paula?

Paula Mydlenski: Thanks so much Laura. Hi, good afternoon Laura, Early Head Start National Resource Center folks, Wolf Trap and participants. Thanks so much for being with us during this wonderful day... March, which is part of National Nutrition Month. As we talk about something so important and near and dear to my heart: Feeding those little tiny tummies, infant and toddler nutrition.

Before we start everybody I want to thank you for being with us and want to be sure that you have downloaded the handouts. There were three of them. One is top tips for helping baby nourish himself and herself. The other handout is a three page resource list. Since we're here a short time together so if you want to learn a little bit more about what we're going to talk about I'm going to encourage you to go to the resource list and do some independent study. And the third is a handout which is this PowerPoint presentation which is in handout format. So if you've got the tools of the trade there with you, fasten your seatbelts and hang on as we enter our presentation: "Beyond Baby Bottles & Baby Food" [clicking].

Got some goals this afternoon. The first goal is: Why Bother? We're going to explore what's really going on with Early Head Start and Migrant and Seasonal Head Start infants and toddlers when it comes to nutrition. But before we do that we're going to do something that we're calling Nutrition 101 which is basically a general new review of nutrition. We're going to go from general...what everybody kind of needs to know about nutrition down to the specifics which will be the second half of the presentation specifically about infants and toddlers. I'm going to ask all of you to turn on your make believe radios and be sure they're tuned in to channel WWHIT. That stands for what, when and how infants and toddlers should be nourishing themselves. And that's going to be a whirlwind channel. Last but not least hopefully you'll walk away with everyday tips, and resources, and updates, about feeding and nourishing infants and toddlers. After all nutrition is a science and early childhood development and infant toddler care are developmental sciences and they're changing every day. So we hope to at least touch on a few of the hot topics with you.

Healthy habits begin at birth. Have you ever wished that you preferred cauliflower to chocolate? So you're not alone. And it's no secret that food preferences start really early in life. That's what all the research says. Without a doubt when we eat foods that we prefer over time they become habits. I'm sure I don't have to ask any of you what it's like to have a habit developed and instilled and try to change it. It's really, really difficult. That's why our focus and one of our themes today...this afternoon is going

to be on setting healthy habits when it comes to nourishing infants and toddlers and having them nourish themselves in a nutritious way.

You know, we all talk about yeah we wish that we prefer cauliflower to chocolate but you know, when American women go into a restaurant it's not salads exactly they're ordering. The number one item ordered by American women in restaurants is French fries. Isn't that a little scary? This beautiful little baby on the screen is my great niece Brianna and I sure want to work with you all so having someone like her develop and instill healthy habits so when she goes into the restaurants it's not French fries she automatically reaches for. The other overarching theme today is going to be nourishing infants. It's kind of a metaphor. It is like a dance. Now I'm not talking about a 60s hippy dippy dance where we dance by ourselves [inaudible] but two people dancing. And if two people dance while someone is leading the dance when it comes to nourishing infants and toddlers...well, I'm not going to give it away yet, but we'll talk about it later. We'll talk about who really is leading that dance of nutrition.

[Singing] Let's start at the very beginning. Let's do your starting points. This slide's got a really quick little three question quiz that I want you to take. You don't have to know the answers and you don't have to turn it in right now. But at the end of the session if you don't know the answer to these three questions you're going to have to fire me because it'll mean that I didn't do my job.

The three questions...number one: What are the three macro nutrients that form the foundation of most foods and beverages? Blank, blank and blank. That's going to be part of our Nutrition 101. The second question is: The person leading the infant's dance of nourishment is who? Blank. The third question is: The mobile infant's developmental challenge is blank and our role is to approach her or his nourishment with that in mind. So I'm just going to give you just about three seconds to fill in your answers and we're going to move on. Pencils down. Let's move on.

Here we are. Nutrition 101. You know if we don't have it for ourselves we can't give it away to the youngsters. What is nutrition? Well I said earlier it's a science but it is a science, it's a study of food and how it nourishes our body. That's where the emphasis is right now and what we want to talk about...how it nourishes our body and how it influences our health. What are the health outcomes? You know at Head Start we're all about outcomes. Could I ask each one of you to close your eyes for a few seconds and don't fall asleep please. And think about your relationship with food. Your food personal preferences. Right now how do you eat? Do you eat quickly? Do you eat slowly? How do you eat? What's the way you eat? And then think about how early those habits, those preferences, what you do started? Think about it. Food is very emotional. What we eat is grounded, is rooted very early in life. So think about yourself.

[Pause]

About two seconds more. Okay. What are those feelings that you have about food and how you eat now? Are you like me? Yeah, I'm a registered dietician but you know I was raised with the clean plate club. Eat everything on your plate because...and then the guilt trip came in...those poor starving children in the other country that didn't have food to eat. So at some point I lost the ability to tell when I was full and just had to eat everything on my plate. And even now a days and even with my awareness those old tapes play that were instilled so young in life and I eat far too much and I override feelings of fullness. I have a friend and he eats really quickly and I asked him: What's going on? You eat so fast. [Inaudible] he said, "You know when I was little meal time was almost arguing at the family table. So I learned real young eat quick and get out of there and so I still eat quick."

Many times when it comes to food we don't eat because we're hungry but we're trying to sooth emotions. It's not uncommon to eat when you're stressed, when you're angry, when you're bored, when you're tired. And that type of eating almost is more of an impulse. You're just kind of shoveling it in. I don't know...I can almost see some of you nodding your heads around your phones and computers [laughter]. It's not actually nourishing your body. The difference between feeding and nourishing; feeding is just that impulsive whatever's there put it in, fill the hole. Nourishing is...well a lot of movie stars now call it "mindful" eating. It's intentionally planning what you're going to put into your body to really nourish yourself. And part of [inaudible] nourishing isn't even just on the physical level. There's emotional, spiritual. A mind, body, and spirit kind of thing. Thinking about, planning about what you're going to eat intentionally to make it nutritious.

And you know in working with infants and toddlers kind of they and us...it's kind of like Velcro. If we're not aware of what's going on with us and those old tapes we can easily transfer our feelings, our emotional eating over to the children's without even realizing it. You know, their little eyes are like little cameras and their brains are like computers. We are the most exquisite nutrition education material that's in that Early Head Start or Migrant Head Start infant or toddler classroom, or even in the home with our own children, grandchildren. They're watching what we do and without even realizing it they can transfer a lot of these old tapes that we...that's been transferred to us to them.

So I encourage you to reflect upon what are your triggers, what are your eating styles, and what do you want to transfer to the children, and what mindfully you want to back off from and try to do differently. [Inaudible] who did they Little Voices for Healthy Choices face-to-face when this project started said kids today...I'm going to quote her because I think it's worth underscoring. "Kids today are overfed [inaudible] feeding behavior going on. Undernourished, not a lot of planned intentional healthy eating and walking around dehydrated." And you know what? Sometimes we do too. Don't we? Here we go

back to the dance. The dance of nourishment. And I'm going to give it away. Who leads that dance? Mm-hm. It's not us. It is the child. The child gives us the cue. Dr. Sam Saulman, wonderful pediatrician and nutrition researcher from Harvard who did like the basic infant feeding book years ago, did much research on infants and children's food intake. And what he and other researchers since then have discovered is that left to their own resources infants and young children can self-regulate how much they should eat. Think about it. Have you ever tried to give that extra spoonful of mashed banana to a very...you know, a baby seven, eight months old? If that child doesn't want it what does he do? He spits it right back out. He knows what he wants and how much he needs. Sometimes we forget that and as children get older and older, around three years old they start to learn the game. They learn that hey, I can figure this out by doing what she says. When she tells me one bite more or eat the rest of your plate, or come on take another sip; that'll please her.

So they start changing and overriding the self-regulation of food intake and not listening to what the body says but listening to what we adults have told them still. Take the extra bite. And even today many of us adults now are faced with that. As young children we overrode our internal beautiful body computer and overrode the fullness, the satiety, satisfied with the amount of food we ate and we eat beyond because we've lost that connection. So let's set the healthy habits. Let's respect that self-regulation that's instant and internal and let's... [inaudible] hearing an echo [inaudible].

Laura: That might be better.

Paula: Much better. Thank you. Let's respect that self-regulation and as we...you know the dance of feeding; we're talking to the child. You're drinking your formula. It's a fluid. We're giving them the words. The young baby can't describe those words as we're doing that or even the older child. Why not talk a little bit about you seem like you're getting full. That was the word Sylvia used in her song. You're getting full. You're getting satisfied. I don't think you're going to be able to eat much more. And so to role model it as we eat with children; ah, I'm getting full. This was sure delicious but I think I have to stop now. So tie the association. Okay, with infants and toddlers let's talk a little bit about nourishing mealtime. What's going on?

You know in infant and toddler classrooms routines, which feeding and mealtime nourishing is one of the many routines that we do in addition to diapering, napping, oral care, and those routines take up 83% of the time an infant or toddler is in our center, in our classroom. That's a lot. [Inaudible] the program for infant and toddler caregivers, one of their concepts is that routines in infant and toddler care are anything but routine. They are the height of the curriculum for infant and toddlers. And so think about mealtime, one of those routines. It's a repetition, something we do many times a day and we know how do young children learn, there are many ways that some [inaudible] mealtime essentially is

repetition. So what's going on in that dance? Are we approaching it as a chore? Something we have to do. Are we looking at the child as an object? Let's get that bottle in. We got to get a couple ounces in. We got to get that spoon in their mouth. Are we on autopilot just putting that food or that diet on the child? Or are we realizing this is prime learning time. This is face-to-face time with that child. This is relationship building time. This is where the child gets to know me and I get to know her. Where we're face-to-face and we know that the [inaudible] research says that the infant's most preferred object to look at in the world is the human face. And there's my face with that child, building a relationship talking. This isn't...that child isn't an object. I'm not an [inaudible]...I'm nourishing and working with that child nourishing herself of himself. It's not just automatic feeding. Ron Lally the director of WestEd says, "Infants develop best when they are sure of having trusted caregivers who can read their cues... see their cues, they're leading the dance...and respond to their needs. At WestEd they talk about responsive process for working with infants and toddlers. That's a three-point process. It's watch, ask and adapt.

And in talking about nourishing infants and toddlers I would encourage you to think about that responsive process. A baby is crying. Okay, you watch it, you walk over, you are asking that child whether she's a brand new baby or he can't speak yet you're still asking and you [inaudible] out loud. What is going on? You're crying. Oh my goodness. Is your diaper wet? Let's see. Are those lights too bright? Oh, [inaudible] is crying over there. Is her crying over stimulating you? Are you cold? Do you want to be held or are you hungry? You ask the questions of the child. Whether the child can answer back at that point, whether that child has the words [inaudible]. It keeps your mind in the adaptation process and then you adapt. You see what's going on; ask the questions; oh, you are hungry. It's been a while. Let's get you something to eat. But we all know that every cry doesn't mean the child is hungry. A bottle is not something to bathe the child with. Okay. Let's move on to some more Nutrition 101.

So we talked about nutrition and doing a study and how it nourishes...the whole concept of nourishing. Let's talk a little bit about outcomes, health outcomes. And to do that let's look at the Center for Disease Controls trends analysis about obesity. And this slide represents obesity for American adults. It has three maps. The one on the left is 1990, the one over on the right is 1998 and as you go down in the middle below its 2007. That's the most recent map that they've published. As the prevalence of adult obesity...this isn't overweight, this is obesity. Having a body mass index of over 30 or being more than 30 pounds or more over what you should weigh. If you look at 1990 the darker blue the map gets the more...the higher percentage of people in that state are obese. And as you go over from 1990 to 1998 you're going to see a lot of states getting dark blue. You can also see some getting peach colored which means that the folks in those states have the...it's even a higher percentage. You're going over to one in four adults in that state being not overweight but obese.

Now let's go down to 2007. As the map gets darker orange and almost to a rust color you're getting in the higher prevalence of people in that state being obese and look at the difference. And this is no real

secret to any of you. You watch TV; you don't have your head in the sand; you're on all of the chat sites; you're on internet, you're reading newspapers. We know this is going on with Americans. We're a supersize society, big portions, not always eating the best and this is the nutrition outcome. And I do have to give it a word. It's not just the nutrition. It's also lifestyle. It's also physical activity too. So that's what's going on with adults. What about children? Which is what we're here to talk about today. Well, you all know the answer to that too. One out of three children ages two to 20 is either overweight or at risk of being overweight. How about Head Start children? Well, what are our PIRs, our Program Information Reports saying? Analysis of Head Start PIRs nationally shows that question: What is the most prevalent health condition identified in your program for the past three years? The most primarily identified health issue with our Head Start children is overweight. An excess when it comes to nutrition. But what a paradox.

Number two is a deficiency disease: dietary anemia. Often associated with low dietary iron, low to moderate vitamin C. Also can be tied in sometimes with a lot of exposure too, and have a major impact on learning. So here we are. What did Amy say? Overfed, undernourished, and dehydrated. Here's a Head Start PIR. Number one is overweight; that's overfed piece. Number two: Dietary anemia, undernourished.

Well, let's segway into our next part of the presentation. Sylvia do you have a few songs for us about this?

Sylvia: I sure do. And actually [inaudible] could have the lines open for everybody from the top. It's an echo [beeping] song and I invite everybody to sing along with me. And we over here at the [inaudible] we have some shakers so don't be shy and join us from the top.

[Music]

Paula: Thank you Sylvia that was wonderful.

Sylvia: Thank you.

Paula: Isn't it incredible about music? I don't know about you all, but I was here at my desk kind of moving a little bit. You know, it brings in that other part of wellness, the physical activity piece. Oh well, we're not finished without Nutrition 101 yet so let's move on with it.

What are nutrients? Nutrients are the substances in food that we need for human growth and functioning. And we know those infants and toddlers, not only us [inaudible] sure are growing. There are two basic categories of nutrients; [inaudible] macro and no secret here the other is the micro. Macro nutrients and micro nutrients. Macro nutrients are the substances in food that we need in larger amounts. That's kind of silly but that's why they're called macro and they provide energy to our body. Which and [inaudible] energy we call them calories.

Let's look first at the carbohydrates. And that's...and the few macro nutrient groups are carbohydrates, proteins, and fats. Carbohydrates can only come from grains, starchy foods, fruits, vegetables, and sugars. The main job of carbohydrates in foods and once they get in our body is to give us energy. As we look to the middle to the protein foods, those are the muscle builders, the cell builders needed for muscle and cell repair. And you know even when it does... you don't realize it but every day our skin is turning over, our hair is essentially dead protein. Our bodies are changing. Our heart is a muscle. Those cells need to be replenished in our heart and we...protein plays a big role in that. We primarily get protein from fish, poultry, meat, nuts, dried beans, peas, black peas, pigeon peas, legumes. As you go over to the right the other macro nutrient is fat, and fat that's our primarily [inaudible] salad dressing and all different kinds of oils. Olive oil, canola oil, corn oil, and that's where we get them from. Fat's primary job in our body is long term energy storage.

We usually use our carbohydrates storage first and then go to our fat storage. And in addition I know that fat has gotten a bad rap but we need some of it because the essential fatty acids in fat are needed for some brain and neuron [inaudible] and even our internal organs need some cushioning which we get from fat. When you're talking about calories of these three macro nutrients carbohydrates and proteins each have four calories a gram and fatty foods, complete fats like oils give us nine calories a gram. So two spoons or teaspoons, fatty foods are much higher in calories. Realistically, many foods that we eat are a combination of these macro nutrients. They have carbohydrates, fats and proteins in them. For example milk. Milk has that carbohydrate, that lactose in it. It's that protein, you know [inaudible] and it also...if its whole milk it has fat in it. Drumroll da da da da.

The FDA has come out with a new eating right pyramid. It came out last October, October 2008 to preschoolers. Unfortunately it's completely interactive so since its interactive I wasn't able to capture it and put it in the Power Point. However, it's available on the website mypyramid.gov. This eating right pyramid for young children essentially has the proportions that are recommended for children. And as we talk about carbohydrates, proteins and fats I'm going to ask you all to look at the base of the pyramid.

Look here at the [inaudible] pyramid are the carbohydrates. It's the starches, the rice and as you go up the pyramid there are more carbohydrates. Its fruits and vegetables. All of the things they say you should have in larger amounts as you go up there are the proteins which is our milk and our chicken, our fish, our meat and at the tip of the pyramid, up at the top the tiny little piece [inaudible]; they call them the other foods. [Inaudible]. So you can see in terms of proportions; we go from the base of the pyramid on up. Unfortunately some say that we American's are eating our pyramid upside down and hence a lot of our issues with the weight. We're eating lots of fats and [inaudible] foods. You know what, you go up to the top of the pyramid; the more fruits and vegetables. We're not quite there yet.

Nutrition 101; we're coming towards the end of it. We got the macro nutrients in food; we also have the micro nutrients. They're called micro because [inaudible] we need them in lesser amounts. They also do not provide calories. You do not get calories from vitamins and minerals. And you the vitamins [singing] A, B, C, D [inaudible] and they are more than that...and also the minerals. The calcium, the iron, the phosphorous, the zinc. They're also found in foods in different amounts and to different degrees.

Okay, you're sitting at your phones and I've been talking a lot. I'd just like you to take your head and shake it back and forth. Shake, shake, shake, shake, shake. Did you hear any whooshing or swishing there? You can stop shaking. You didn't and it's kind of surprising. Because although water isn't a nutrient, it's something that we definitely need every day. And our brains are 70% water. Our bodies on average 60% water, and it's a real focus in terms of trying to get children, especially children age one and up to drink their water. Remember [inaudible] said under nourished and what was the third piece? Dehydrated. And you know by the time you're thirsty you're already mildly dehydrated. So physicians say you should drink your water even before you get thirsty. Have it available for children one and over to drink at any time of the day.

And when it comes to infants under age one, believe it or not, you got to be a little bit more cautious about water and work closely with your pediatrician. This is one of those hot topic updates. This...and especially, especially, the teeny weenies, children age birth to six. They can get something called "water intoxication" if they drink too much water. In these economic times, sometimes if parents are trying to stretch the food dollar and if they're using an infant formula, if they're not breastfeeding and if it's a concentrated or a powdered formula they have to mix with water, once in a while parents will think well I'm just going to add a little bit of water. It'll make it stretch farther. That's a very very dangerous practice because with young children more water...for children under age one, extra water can cause problems. It can even be fatal. So for children under age one if they're breastfeeding or on iron fortified formula that's perfect. No bottles of water.

Work with your pediatrician or an Early Head Start or Migrant Head Starts they have to have registered dieticians Performance Standards say, supporting your program. They would be good people to work with too on an individual basis. But you got to be careful with young ones, infants and water. When you get to the point where infants or toddlers are going to be taking [inaudible] ...new words...they used to call it solid food, now they call it "complementary food." And that's the new word because pediatricians and dieticians want to highlight that for the first year of life the basis of the diet is either breast milk which is always preferred if possible, or iron fortified formula and other foods are just add ons, so complementary.

I know Little Voices for Healthy Choices has talked about it's wonderful, mashing a fresh banana at that point that a child begins to take complementary food, or taking the inside of a potato and smashing it real good and that's perfect. But if parents or caregivers do choose to use package foods like infant baby cereal, infant baby rice cereal, or jarred baby foods it's important to know how to read an ingredient list. The Food and Drug Administration is who regulates this and they actually have an interactive label man and the web address for that is in the resources handout with this webinar. And it's important for everybody to know when you read an ingredient list that it starts by reading the first ingredient is the ingredient that's in there the most highly by weight. And then all the ingredients are [inaudible] listed in descending order and at the end the last ingredient is the one that has the least amount in the food.

So now let's look at this baby peach desert and let's check out your label window, your label [inaudible]. Ingredients: peaches. Well that's pretty darned good. Natural peach juice doesn't sound too bad. White grape juice...so it's a juice and sucrose corn syrup and fructose. But the first three ingredients look to be peaches and juices. Well let's look at other words for sugar. Sucrose, fructose, dextrose, lactose, [inaudible], ose, ose, ose, ose. Whenever you see the suffix ose at the end of a word it's a fancy chemical name for a sugar. Other words for sugar that you might see on a label are corn syrup, molasses, juice concentrate or even believe it, sometimes in itself, sometimes juice can be sweet.

So let's look back at that food label. Peaches...yeah a good fruit. The actual peach juice ...well, it is juice...that is natural sugar. There's fructose in there. We know that. White grape juice, [inaudible] contains sucrose, corn syrup and extra fructose. You know I bet you if you added up all those sugar sources in one, you would get a higher rate of sugar than there are peaches. But since they separated it all out into different forms of sugar it looks like it doesn't have much. Really deceptive. Huh? Okay, raise your right hands, pat yourself on the back, go ah, good job. Ah, good job. You've now graduated from Nutrition 101.

Let's talk a little bit about specifically in our last few minutes about infant and toddler nutrition. We know when it comes to Head Start, Head Start...Early Head Start considers infants to be birth to one

year old and considers toddlers to be one year old to three year old. However, when it comes to developmentalists, they look at young children age birth to age three as all being different forms of infants. Developmentalists and this can go for infant and toddler caregivers also talk about young infant being birth to eight months, the mobile infant is approximately eight months to 18 months, and the older infant being about a year and a half to three years old. Now we know that each child develops at his or her own individual rate and there can be some approximations and overlap between...in this developmental continuum.

However, let's look at what we know and the young infant birth-to-eight months old. We know that this child...every cry that this child has needs attention because the developmental challenge of young infants is security. So you can't spoil that child. Every cry needs to be attended to because they are looking for security. We know that this young child's muscles are not fully developed. When they're a newborn they can't walk, they can't crawl, they can barely hold up their head; they can't. They're almost completely dependent on you to get their needs met. The brain is developing, the synapses are firing and making connections. There are no words or verbalizations in terms of being able to babble when they're newborns. They get to eight months and closer to seven, eight...yes they can.

You do have to give the child the words. It's almost like you're feeding that young infant. You are drinking your mommy's milk. It's white; it's kind of sweet. You got four ounces in the bottle. Magda Gerber who's an early childhood developmentalist [inaudible] and she is no relation to the Gerber on baby food but Magda says in this high stress world we all live in, in working with infants and toddlers. We're all stressed. We're talking a mile a minute probably like I am today on this call. We're moving around real quickly and she said if she has one word of advice to infant and toddler caregivers: It's to slow down. Slow down when we're with these little tiny teeny weenies. And the same when feeding them and nourishing them. Don't be in a hurry. Talk with them, slow down. We know that in Head Start we have to do developmental screenings and so these are Center for Disease Control's growth charts. And we know these young infants are growing at lightening speed. At six months they're doubling their birth weight, by one year they're tripling their birth weight and so this...the screening really should be monitored by the program and in conjunction with a pediatrician and with a registered dietician and nutritionist who works for the program and supports the program. I've been talking a lot. Sylvia would you please pleasure us with a song?

Sylvia: Absolutely and since you're talking about milk; so here we go. And everybody out there because I'll have the line open for everybody. Take this chance to practice. We'll do this also as an echo. So you can go back and sing to the children that you work with, to friends and family. And you already warmed up with two previous songs. Here we go.

[Music and Singing]

Sylvia: There you go.

Paula: That was fun, thank you. And you know these young infants are all about milk. Birth to six months, it's all about milk. The considerations like breast milk or iron fortified formula and then there's complementary foods. When do you introduce them? [Background conversation] Can I get the lines closed again please. We all know that grandma was right when she said that "breast is best" and we know all those reasons...the bonding, the skin on skin contact, the nutritional benefits of breast milk, the [inaudible], the colostrum with all the antibodies fighting infection. It's easy to digest; it's economical you don't have to worry about the water you mix it with; it's ready to be served. There's so many benefits but in addition and really going into our talk today is the nine studies that show that breast-fed babies end up being more slender adults.

So when we talk about the battle against pediatric obesity, a real key factor is breast feeding if the mom is willing and able to. In addition, research has shown that breast milk has chemical... natural occurring fatty acids which are natural chemicals arachidonic acid and docosahexaenoic acid in breast milk, and the research shows that it helps with infants visual acuity and also brain development and cognition. So dum, dada, dum. What are infant formula companies doing? They're taking these naturally occurring fatty acids found from human milk and they're putting it in formula. You know those formula's. They're very expensive. We're talking about Similac Advanced and Enfamil [inaudible] formula. They have ARA and DHA. Do they work? The jury's out. There are no conclusive ...the studies are mixed, there's no conclusion that spending that extra money will actually give the baby all the benefits that breast milk does with the ARA and DHA, even though they've been added. You know, when it comes to breast feeding one of the main things we can do is to assist moms in finding breast pumps; if they're going to go back to work, contact...help them contact La Leche League or the WIC program. They sometimes have loaner pumps. And also if they're having a problem breast feeding WIC and La Leche also have lactation consultants often on board to help them with that transition to breast feeding. We also want to help the mom; there's transportation considerations, the storage of it once it comes to our center. Sometimes Early Head Start programs provide the little cooler...lunch coolers with cold packs. The thermometers, even the best of the expression bags, and even the bottles to transport the milk safely. And you know if the child is not on breast milk we at the program do provide the formula. We do not ask parents to bring in the formula.

Before we leave this talk, I also want to say a word about moms who opt not to breastfeed. Yes, we know that nutritionally and for other reasons breast milk is superior, but it's her body and it's her choice, and so we don't want to be judgmental. No shame, no guilt. It's each mom's choice. Again with the dance

of nourishment we're talking about Head Start performance standards which talk about feeding on demand and that's all about following the infant and toddlers schedule. Not our schedule as to when they're hungry and when they should eat. What's wrong with this picture? Again, Head Start performance standards say that infants should be held while being fed. You can see neither one of these children are being held and a word of caution about high chairs. When I go into an Early Head Start classroom or Migrant and Seasonal classroom when I see a high chair, it's a bit of a red flag for me. Because if there are high chairs there it means the infant isn't being held while being fed as the performance standards say. With high chairs there's a tendency more to feed the child rather than do the dance and the skin on skin contact and also, some developmentalists call high chairs confining restraining devices for young children. So think about it.

I'm going to throw out something else about that sippy cups. You have these tools of the trade for feeding infants and toddlers. If a child can hold a sippy cup chances are they can hold that cup without the lid on. Because the research shows that sippy cups have...sometimes kids [inaudible] and again without...the milk has got natural sugar in it in the lactose and it's coming out through a small opening along the front teeth and again baby bottle tooth decay, nursing bottle [inaudible] can occur. Also muscular...the muscles a child uses to sip out of a cup are different than sucking on a sippy or sucking on a bottle. We want those muscles to all develop so that speech can come in play. How about introducing those complementary foods? When do we do it? Well, we can do it on a timeframe but you know me. Introducing solids or as we now call them complementary foods should be done when the child's developmentally ready. On the handout, the top tips for feeding on page three, I encourage you to look at when is baby ready to feed...to be nourished on infant rice cereal. Maybe, when she can hold her head up, when she can focus on the spoon when that lower lip can curl over it. When she can take it from the spoon. Never, never, ever, put infant food in a bottle. Never, never, never. What's the first food to feed? Well, traditionally it's baby rice cereal because it's high in iron...that's really important for breast-fed babies after age six months. But also it tends to be a little bit less allergenic than other foods. However, the American Academy of Pediatrics says there is no magic. Should it be strained mashed fruits? Should it be strained mashed vegetables? Should it be infant rice cereal? They don't have a magic number, a magic food that they say. The research isn't there to show.

I know I for years as a dietician said transfer, begin vegetables first because once they taste the fruits they won't eat the vegetables. But you know it sounds logical but the research isn't there to back it. Know that the WIC program is upgrading and as of August of 2009...hot topic... they are going to be... on their food program they will be giving jarred baby foods, jarred baby vegetables and they will be not providing baby juice anymore after age one, and baby's that are fully breast feeding will be getting jarred baby meat because...as they get older...and no baby food, no complementary food until age seven months on the WIC program. So just a heads up. I think we need another song please.

Sylvia: Okay, I'm ready. Here we go.

Paula: Okay.

[Singing]

Paula: That was lovely. Thank you so much Sylvia. Okay, we're moving on to the mobile infant. Which is...it's just exactly as it sounds. The child is starting to do the locomotion, move around. What do we know. That child age eight to 18 months the developmental challenge is: Exploration. They're starting to move; they're starting to explore through their senses. There's communication-wise; they're starting to babble. Baba, Dada [inaudible]. They will explore but they going to look at you to check in is it okay. Their growth rate is starting after age one year to slow down. While a young infant tripled his or her birth weight by one year, now these mobile infants...it takes them from one year to two to double their birth weight. So likewise when it comes to nutrition their appetite isn't what it used to be when they were younger. They're usually transitioning to more solid foods. When they get to be a year the rest of your [inaudible] and infant food program puts them on a specific meal pattern but we still have to feed on demand for Head Start. They're eating more table foods. Since they're exploring we need to be sure that environment is safe and we let them explore even with food. We want to be sure not to have a lot of choking foods or any choking foods within their reach and eating will be messy. They're learning how. You don't want the beautiful carpet that's in this picture under the baby when he or she is eating. You want a tile or a floor that you can clean, or plastic underneath the area they're going to be eating in. How about us as caregivers? We need to be good waiters. You know a good waiter; they don't hover over you. They give you some space but they're right there if you should need them, and that's what we should be when it comes to mobile infants. Moving on to older infants which are a year and a half to three years old; the developmental challenge...no secret about this is identity. They're getting a sense of self and differentiating themselves from other children and from you.

Now up to age two we want children to have age one to two whole milk. No fat free, no low fat because they need those essential fatty acids. When they get to be age two it's okay...USDA and we dieticians and the American Academy of Pediatrics agrees it's okay to then transition to either 1%, 2%, fat free milk. It's okay. With this independence that these older infants are getting and we at Head Start sometimes call them toddlers. The favorite word is the word is "no," and that's no exception when it comes to food. It's the [inaudible]. Repeat after me: No healthy youngster will ever starve herself. Repeat: No healthy youngster will ever starve herself. Take a deep breath. They get kind of fussy, they don't want the juice from their peas going into their smashed potatoes. They sometimes go on food jags where they only want to eat one food at a time. They can get kind of picky. And their growth rate has declined even more. So often their appetites follows with them.

Research shows that we adults overestimate how much food young, young children need. As a rule of thumb think about eating right pyramid again and for every year of age that's how many tablespoons of food from each food group a child needs to eat at a meal. So we have a two-year-old; that two-year-old on her plate or his plate needs two tablespoons of starch; [inaudible], mashed potatoes or rice. Two tablespoons of vegetables, two tablespoons of fruit, two tablespoons of protein and their little cup of milk. And they won't need the two tablespoons of fat. Just enough to make the food taste good. They don't need it. A three-year-old in a meal would need three tablespoons of each one of those foods. Get it? Important is our role modeling. Encouraging children without forcing them to try new foods is important. But if we're going to encourage the children too, again, they're watching everything we do. We need to be role modeling eating family style, eating the same food as the children.

When it comes to older infants there's still a new growth chart from CDC. It's the body mass index growth chart. We don't use this growth chart for children under two. This growth chart lets us monitor; [inaudible] it's an assessment tool for us in Head Start. Doctors may use it as an assessment tool but it lets us look at what's going on and if the child's at risk for being overweight or underweight. We need another song please Sylvia.

Sylvia: Great Paula. We encourage [inaudible] to give the children a pat on the back when they at least try those wonderful healthy foods.

[Strumming Guitar]

Now let me sing one time through and maybe you can just catch on and just join me along the way.

[Music and Singing]

Could I have everybody join me? Could...can we have the lines open? All right everybody, this is an easy one I promise you're children will love. We do this everywhere, everybody love it. The adults too.

[Music and Singing]

Paula: Good job. That was good. Thank you Sylvia. [background conversation]. So now when it comes to older children sometimes [inaudible] if people let it because there is a point where they're asserting

their independence and saying no. And some of you may have heard of Ellyn Satter and she's in our references...one is the background. Ellen has a master's in social work. She's also a registered dietician and she talks about the division of responsibility. She says we as adults have responsibility and so do the children. What are we responsible for? So when it comes to young children they can't go out and do their own shopping and they can't prepare their own food. So we're responsible for what food is served to the children. We're responsible for whether we're serving cauliflower or chocolate.

We're responsible also for the environment. Are the utensils the right size? Is it a comfortable chair the child's sitting in at the little table? Is music soft? Are we arguing? Is it a cold environment? So that's what we're responsible for. Now what are they responsible for in the dance of nourishment? That child is responsible for how much she'll eat and even if she'll eat at all. That's the child's responsibility. Not ours. There's auto-regulation and remember no healthy child will ever starve herself. January 2009. I encourage you all to pick up the issue of Zero to Three where there's a really wonderful article which talks about sensory food aversion in infants and toddlers and there are some cases where infants and toddlers are not just picky; it goes beyond that. They definitely have a more serious case of not wanting to try different textures; it's different than the ordinary food jag. Hey, that could be a webinar in itself talking about sensory food aversion; we won't have time now but I want you to know the name and I want you to all please get that issue of Zero to Three and read that article. Okay, ending points. You can open up the phone lines please. The three macro nutrients that form the foundation of most foods and beverages are...everybody, what are the three macro nutrients?

[Inaudible Audience Response].

Paula: Carbohydrates.

[Inaudible Audience Response].

Paula: Protein.

Audience: Fat.

Paula: Very good. And when it comes to number two, the person leading the infants dance in nourishment...who's leading the dance?

Audience: The infant.

Paula: Yeah. The infant. Very good. Number three; the mobile infants developmental challenge is?

Audience: Exploration.

Paula: Exploration. Be ready for it. Try new foods and having the environment set up and safe and ready for that exploration. Very good. Let's look at our goals. So we talked a little bit about the situation for infant and toddler nutrition. What's going on. The prevalence of overweight anemia? Yeah, we definitely did Nutrition 101. We turned our radios onto channel WWHIP and I think we had a few little updates hopefully. Healthy habits begin at birth. Do you wish you prefer cauliflower to chocolate? My little niece Adriana; I know one day she's going to sure with that she did. So let's do our best to teach she and other real youngsters like her to intentionally and mindfully take care of themselves, and nourish themselves in a good way. They're leading the dance of nutrition and nourishment. Happy National Nutrition Month and it's been an honor having you all with is today.

Laura: Thank you so much Paula. Thank you for sharing so much information with us [background conversation]. We know you've all been listening carefully because we're already receiving your questions. So Paula I can begin to read some of them to you and we'd really like to hear what's on the mind of all of you...the minds of all of you who are out there. So please go ahead and continue to type in questions for us. We'll read them and pass them along for you. We've had one that came in from Melissa in North Dakota.

The question is, that she's working with a young mom who's watering down formula to make it easier to be digested since the child is spitting up. She says, I encouraged her to speak with her doctor. Are there any good resources to direct her to Paula?

Paula: Wow, you're definitely right on target with that Melissa and it's not an uncommon...it's not... it's really not uncommon for infants to spit up and not hold down the food but, what you told her was definitely on target because a lot of times whatever is the cause may still be there in the formula. It might be the protein and the child may need soy milk. It may be the sugar and the child may need a lactose free infant formula. It may be the positioning after mealtime. And so what I would tell Melissa is, you know, programs need to have a registered dietician or nutritionist employed in their program. I might have that registered dietician talk a bit with the mom to see what's going on and be the first line of defense and if mom is on the WIC program they also have nutritionists who can easily talk with the

mom and the doc...she needs to let the doctor know. Because although maybe the baby is holding down the formula a little bit better; I'm not sure. That child is not getting high test fuel for nutrition. So definitely the child is not getting the protein, the carbohydrates, the fat that she needs and also, I worry about the water intoxication. It's very serious. So I would definitely jump on it and get the RD who supports your program or just your dietician or nutritionist and also [inaudible] and talk with her doctor. The baby may need a formula change and it actually...more watered-down formula actually tend to spit up more than regular formula [laughter]. That's what the studies show anyways. But that's a great question.

Laura: Thanks Patty, Paula. We also have another question for you [laughter]. This comes from Maddie and it follows nicely after your response to the last one. She's asking should you not alternate feeding with water in childcare centers?

Paula: Well, that's a great question and I'm not sure Maddie if you're talking about infant at birth to age one or over age one. Now birth to six months pretty much the doctor determines how much water that infant should get because breast milk, or iron fortified formula supplies all the water that that child needs and we don't want water intoxication. But six months to one year when complementary foods may be introduced...sometimes pediatricians say a little bit of water can be added depending on how much complementary food the infant is taking in. But that's completely individualized.

Again, you need to work with the pediatrician. Over age one year you should have water available... I mean at all times in Head Start...Early Head Start Programs over age one. I've even heard talk about working it into transition time. Whenever children are doing transitions teach them to take a sip of water.

Laura: Great. Thanks for another [inaudible] answer. We have one more question right now and we really encourage you all if you have any questions that you're thinking about please don't be shy. This is your chance to go ahead and ask Paula. The third question that's come in is: What do we do if a mom wants to change to cow's milk before one year?

Paula: Oh, that's a good question. That kind of follows along on the same vein doesn't it? Actually, a program in Kentucky recently asked me that question. We really again, need to get the registered dietician or nutritionist who supports your program involved in this.

Because you know we're doing a balancing act with nourishing infants and toddlers. We know we want to respect the parents in what they want to do with their child because they are the primary teachers of the children. However, when it comes to a practice that we know may not be in the best interest of the child such as cow's milk before age one; it doesn't have the nutrition; it doesn't have the iron, it doesn't have the protein in a form that is readily digestible. It's also the load on...the protein load on the kidneys is too high. The kidney's aren't fully developed at that age. At that age it's not in the child's best interest so we need to find someone who can talk easily in a trusting way with the parent and sometimes it is the dietician that supports the program. Sometimes it might be the health coordinator, or the nurse who works with the program, and explain that to the parent. And again, sometimes it's pushed by economics because the parent...because formula is much more expensive than cow's milk. So I also look to see if they...what's the food security issue for those parents and do they need to be referred to the WIC program? Do they need to be on food stamps to be able to supply the formula? And then I'd find out why they're changing. So when they tell me it's done for economic reasons...FYI too, the food stamp program is changing its name, it's now...it has changed its name. It's now known as SNAP; the Special Nutrition Assistance Program. So in addition to doing some one-on-one education with parents, I'd also do some one-on-one in trying to work with them to get some infant formula, if food security is an issue. Food banks too. Maybe you could set them up with some food banks. Two-part answer. Education and also helping solve...if this is the problem...finding out if it is not having the infant formula to feed the child. That's a really good question. Thank you.

Laura: Thanks Paula and thanks to all of you for your questions. We have time for another piece with Sylvia before we end today. So please don't be shy. It's your last chance to join in with us.

Sylvia: That's right. It's great that we have the lines open already. I just would like to add a little bit of movement to this last piece. When you see there where it says "chop, chop chippity chop"; that you're chopping your lap. So just practice that very quickly and chop, chop, chippity chop. Chop, chop, chippity chop. That's easy.

Okay, no need to be shy for that. Nobody's watching [laughter]. And then the second part...it would be the chicka, chicka, chicka, chicka, chicka also chop on your lap. And any time we sing around, and around, and around we stir, can you go around and around on your feet? Let's try; and around, and around, and around we stir. And around, and around, and around we stir. The song is pretty much an echo. There is a little chant at the beginning and there is an echo you pick up right away. I'll do that only once. [Inaudible] just follow up on what you said Paula. Where these songs come from really; We just make them up. We just create to serve our purpose; so I would say feel free anybody to compose, to create, to invent, and to explore, and enjoy that experience because that makes learning in the kitchen much more memorable. So here we go.

[Chanting]

[Singing]

Thank you everybody.

[Inaudible].

Laura: Thank you Sylvia and thanks to all of you out there for joining in [background conversation]. Thanks for joining in today; it's been a lot of fun to share with you, and we want to encourage you to save the date for our next and final presentation in this series. We'll be hosting a webinar on May 12th at 3:00 pm and we'll be joined by staff from Wolf Trap as we have a chance to delve a bit more deeply into material around infants and young children and music and movement experience [background conversation]. We're looking forward to being with you again, and thanks for your participation today

[Phone Disconnecting]