



The Influence of Feeding Practices in Child Care on Obesity in Early Childhood

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What Factors Influence Child Care Providers' Feeding Practices?

- 49% of children are enrolled in child care centers
- They consume 1 – 5 “meals”
- Foods are studied, but not feeding
- Not much known about the mealtime practices

The Role of Child Care Settings in Obesity Prevention

Story, Kaphingst, French 2006

■ Research Goals

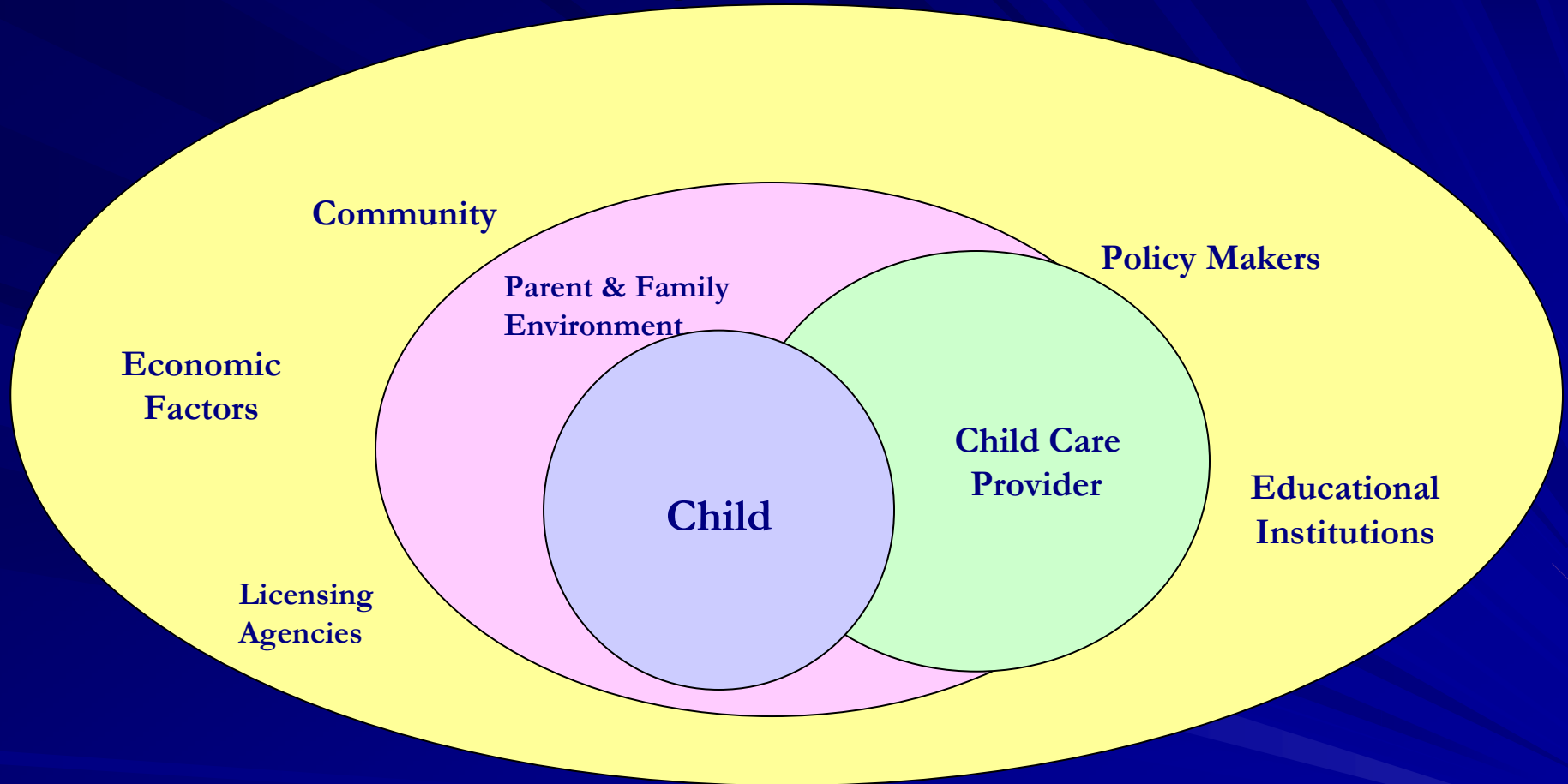
- Develop, implement and evaluate innovative programs
- National study of child care programs on dietary quality of meals & snacks
- Conduct descriptive environmental studies
- Evaluate methods to increase parental involvement, to change parental behavior, and to change the home environment

Factors Influencing Child Care Providers' Feeding Practices

Objective: To acquire a realistic and accurate understanding regarding feeding behaviors, attitudes & beliefs, practices, and demographic descriptions of childcare providers.



Ecological Model



The child lies within the center of his or her universe surrounded by the immediate environment (the micro system) which is surrounded by the environment at large (the macro system)

Study Design

- Literature review, stakeholder input, expert panel
- Formative research: Interviews with providers
- Observational data of (best) practices
 - Building Mealtime Environments & Relationships
- Pilot surveys
 - Cognitive interviewing
 - NonHispanic White, Hispanic, African American
 - Rural and urban
- Final survey



Formative Research

- Interviews with providers
 - How providers view mealtime:
 - learning or break?
 - Concerns about children's weight and eating
 - The extent to which they follow current guidelines

Purpose of Mealtime

- Meals are about nutrition first, but also other learning
- Snacks are mostly about getting enough to eat
- Learning to eat—mastering eating skills
- Learning social skills like conversation, sharing, etiquette

■ Providers generally support children's abilities

- “So these children, they serve themselves and I was so overwhelmed. I was like, “You’re kidding me!” You know? When I got into this program, they served themselves. It’s a self-help program.”
- “They can do everything. Well, my kids can. “
[Interviewee laughs.]



Other themes...

- Need for clean, safe and calm environment and for children to be satisfied
- Bad days are when children are still hungry, when they don't like the food or they don't have enough space
- Encouragement blurs into pressure
- Desire for more variety and more food



■ Parents have low expectations & knowledge

- “I think, you know, some are pretty adamant that we make sure that they don’t have their treat before they’ve eaten their other stuff and then some are more lackadaisical about it...they could care less.”

■ Providers are a little stuck because of what parents provide

- “You know...if that is in the lunchbox...that’s entirely up to the parent. If they want to give it to them...Obviously, that’s up to them... At least we tried...”



More findings...

- Providers' responsibilities are many and complex—and they view their role in children's eating and growth as being very important
- Don't consistently see a big role for themselves with overweight children, although all could identify children in their care who are overweight
- Larger role for hungry children and thin children



■ What is the provider role in children's weight?

- “Gosh, that’s an interesting question. I’m trying not to laugh right now...Professionally, my role is to follow through with what is recommended and what is provided. Personally, as a citizen, to do what’s right if I see something that is not right. Whether that means reporting something or making a meeting...setting up a meeting with parents...or calling a professional, whatever. Making sure that something is looked at other than just by me....”



Guidelines That Aren't Used

- Children are encouraged to participate in all aspects of mealtime (preparing & cleaning up).
- Adults teach children about nutrition at mealtime.
- Children are allowed to serve themselves.
- Adults eat the same food as children.
- Adults sit at the table while children are eating.
- A variety of foods are served that broaden children's food experiences.
- Children are encouraged to taste all foods.
- Children are given child-sized equipment & utensils.
- Children are allowed to decide the amount of foods they eat.
- Food is carefully chosen, prepared and served to prevent choking.

About Feeding Children Staff Survey

Start Here

Please read each of the questions and answer them carefully. We are asking questions about what mealtimes are like, what you do at mealtime, and what you think you should be doing. We also ask a few questions that let us get to know you a little.

If you are not sure about the answer to a question, choose the response that is closest to your opinion or to what you do. There are no right or wrong answers to these questions - only what you think. It is very important that you answer each question.

Using a pencil, mark your answers by placing an X in the appropriate box.

Mark boxes like this → Not like this →

If you change your mind and need to change an answer, make sure to erase your first mark completely.

First, we would like to know what mealtimes are like in your center.

1. What is the age of children you work with at mealtime now? (Please mark one box)

- Infants (less than 13 months)
- Toddlers (13 to 35 months)
- Preschoolers (3 to 5 years)
- School-aged children
- I work with more than one age of children

2. Which of these statements best describes what you usually do at mealtime? (Mark one box)

- I sit with the children
- I am in the room but don't sit with the children
- I get up and down during mealtime

3. At your mealtime, not snack time... (Mark one box)

- Children serve themselves ALL foods
- Children serve SOME foods but not others
- Food comes to the room already on the plate
- Staff serve all foods
- Children bring their own meal and staff may help with putting food on plates
- Children bring their own meal and serve themselves

4. What do you usually eat at mealtime in your center? (Mark one)

- I eat some of the same food as the children and some of my own food
- I eat some of the same food as the children, but have my own meal later
- I have the same meal as the children
- I eat my own food during their mealtime
- I don't eat during the children's mealtime

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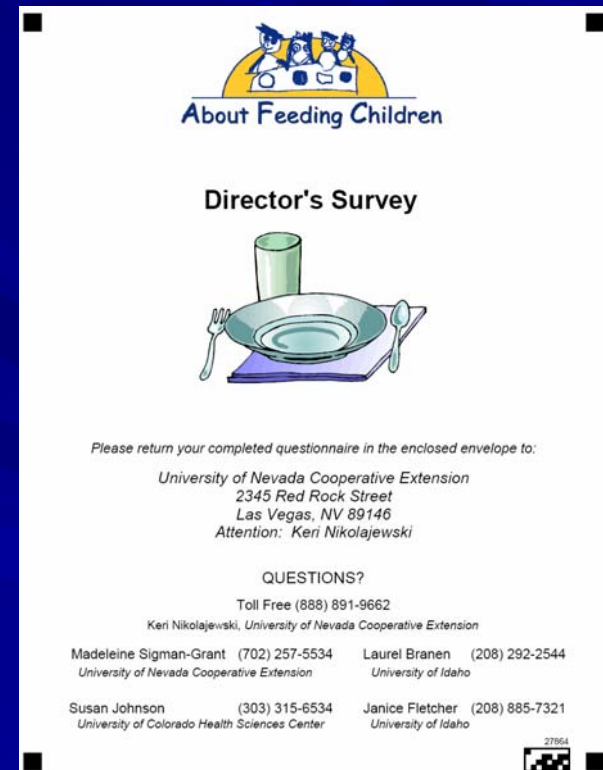
- Current feeding practices
- Control in feeding
- Mealtime routines
- Barriers
- Providers' eating & weight history
- Providers' current eating & PA

34 items
137 responses
20 ± 7 min to complete



Sampling Design

- Database of all licensed child care centers in the 4 states (CA, CO, ID & NV)
- Rural, urban cluster and urban
- Stratified random sampling by state and census region
- Targeted 1600 directors and 8000 staff



July 2004

Distribution of Questionnaires

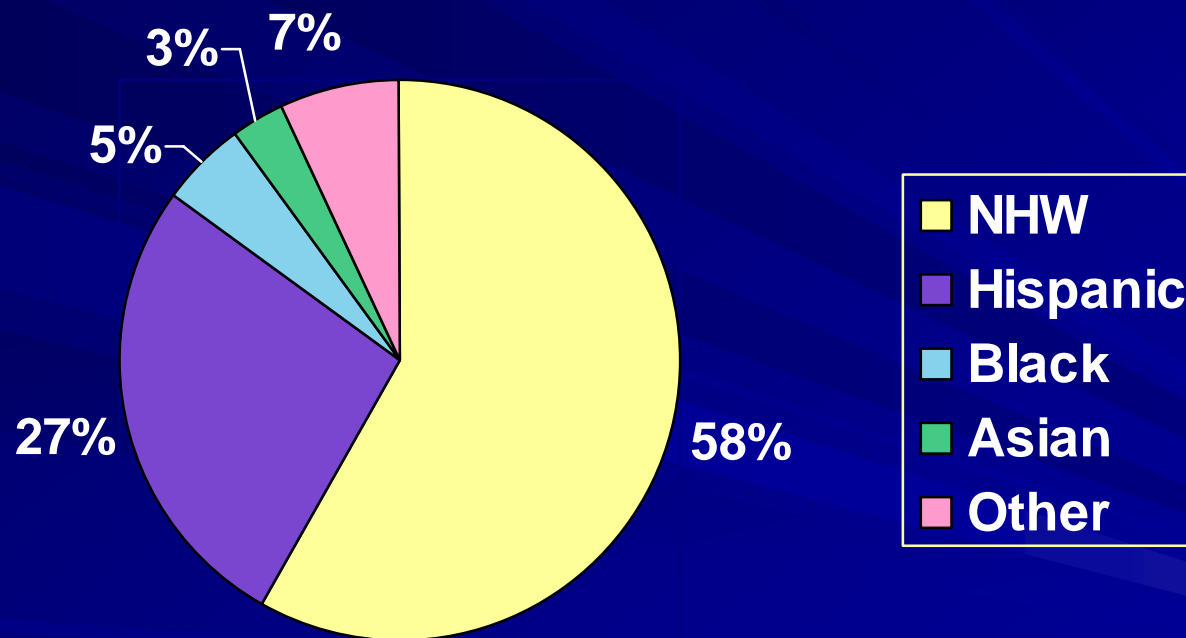
- Introduction letter
 - Questionnaires (& incentive) mailed
 - 1st reminder after 1 week
 - 2nd reminder after 2 months
-
- Analyzed using SUDAAN to account for uneven sample distribution across states

Who responded to the survey?

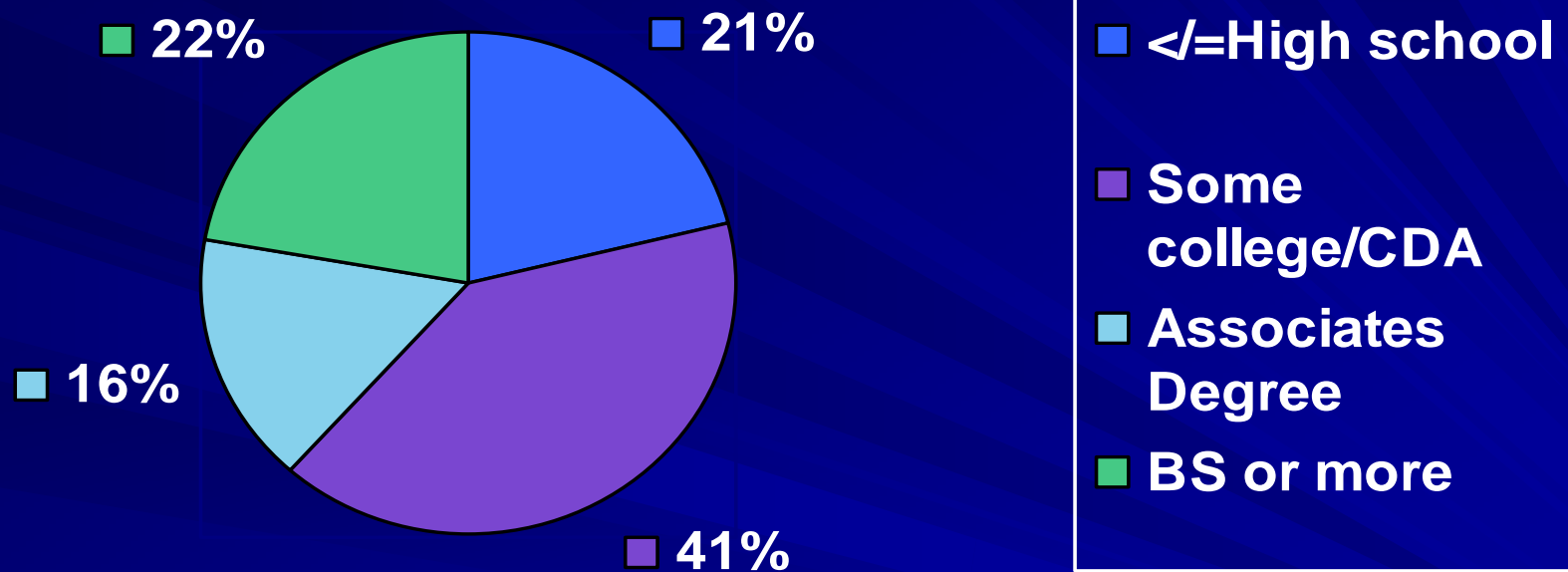
- 40% response rate (1 190 staff; 464 directors)
- 98% females; 39 y of age
- <25 to >200 children per center (50-100)
- 26% NAEYC accredited
- 5 days per week
- \$2-\$3.50/hr per child (4 y)



Provider Characteristics



Provider Characteristics—Education



Trainings

CD	92%
Nutrition	70%
Feeding	48%
Licensure	76%



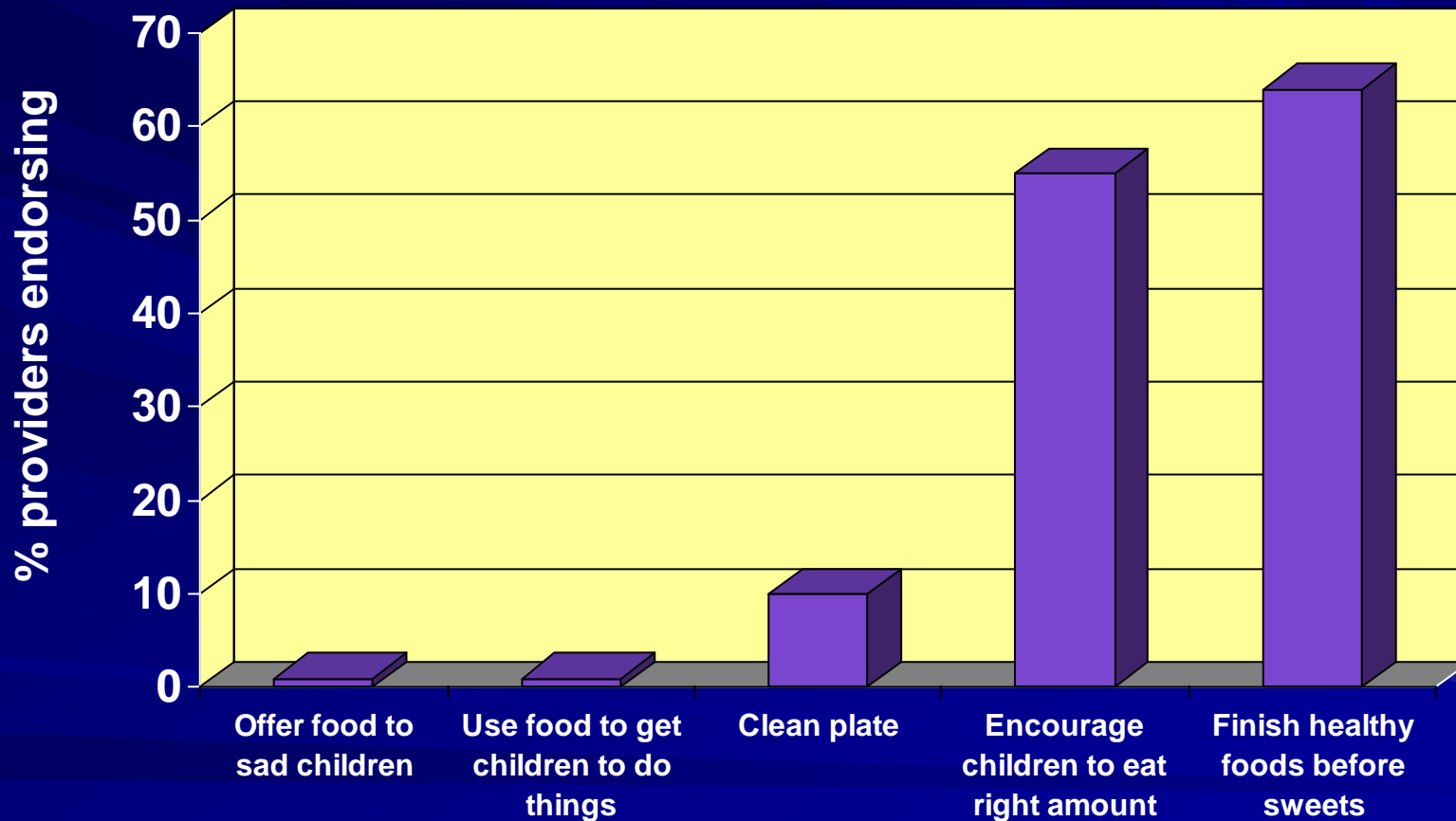
Provider Characteristics

■ BMI	(%)	Self-Rating
– <18.5	2.6	6
– 18.5-24.9	46.5	37
– 25-29.9	27.0	34
– >30	23.8	22

Feeding Practices That Are “No Nos”

- Emotional uses of foods
- Coercion & Bribes
- Forcing—trying, finishing, how much
- Denying foods
- Punishment

Strategies Used (Often – Always)



Practices that work well for getting children try new foods

	%
Having a “one bite” rule	38
Keeping them from having sweet foods until they try the new food	30
Not having seconds of other foods until they try the new food	23
Having the new food on the table and letting children decide	30



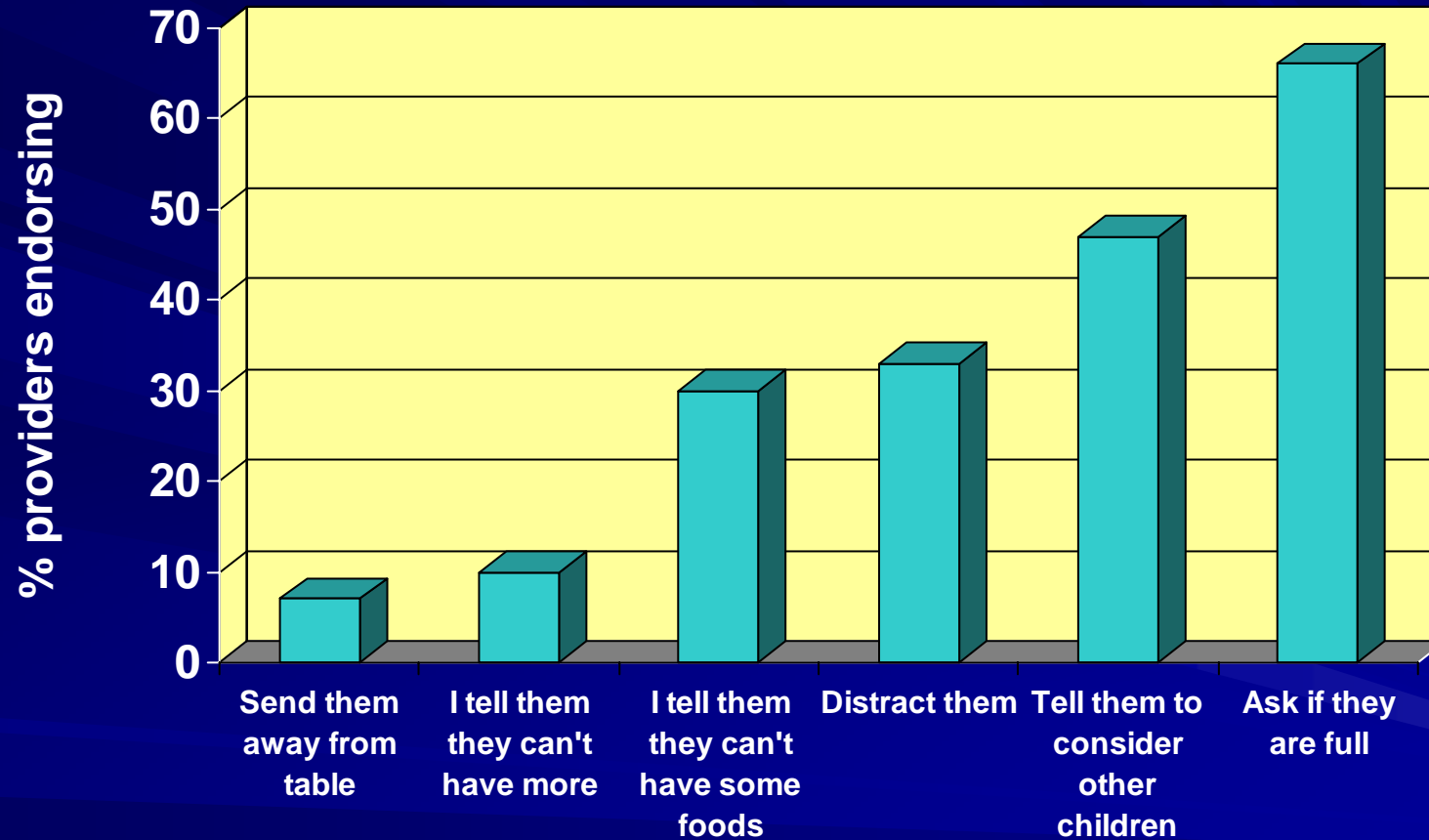
In past 6 mo how many had children from families w/o enough to eat?

	%
Every day	7
A few times a week	10
Each week	5
2-3 times per month	5
1-2 times per month	11

When a child is from a family that doesn't always have enough food

- 72% make sure the child gets “all the food they want” at the center
- 97% try to make sure the child gets enough “healthy food” during the day

Children who do not want to stop eating



When children are very thin

	%
I know they will eat as much as they need	87
I serve them more food	11
I offer more of the foods they like	56
I praise them to get them to eat more	56

Do providers respond differently to normal weight & overweight children?

Question	Normal (%)	Over (%)
<i>When children do not want to stop eating...</i>		
I tell them they can't have any more to eat	13	15
I tell them they can't have more of some foods	27	30
I send them away from the table	7	7
I try to distract them	29	33
I explain that they need to leave enough for others	49	48

Factor Analysis of AFC Survey

- 50 responses on feeding practices
- 3 factors extracted (35 items)
 - Getting Children To Eat Properly
 - Controlling amounts, order, sweet foods, emotional
 - Getting Children to Stop Eating
 - Methods to get the normal and overweight child to stop
 - Promoting Children's Self-regulation
 - Asking normal and overweight children about internal cues

Low Score = Low Control



Provider Characteristics & Factor Scores

- Age: The older providers were, the lower their factor scores
- Years of experience: The more years of experience, the lower their factor scores
- Weight: Obese providers scored lower
- No relation to race/ethnicity

Low Score = Low Control



Training and Education Make a Difference

- Higher education = lower scores
- More training (in child development, nutrition, or feeding children) = lower scores
- Hours for Licensure did not relate to factor scores

Low Score = Low Control



Conclusions



- Stricter standards are being suggested for the foods offered in child care. Little focus placed on feeding practices and training for staff.
- Education and training appear to have a positive impact on feeding practices.
- Major obstacles include foods provided in lunch boxes, children who experience hunger, developing best practice for “encouraging” healthy eating.
- Child care staff report interest in playing a role in preventing childhood obesity and are positioned to be powerful allies.



Why it's hard...

- Children are encouraged to participate in all aspects of mealtime (preparing & cleaning up).
 - Letting children help prepare food all the time is hard—it's too much effort to have them do it at every meal. It would be a health hazard to have them in the kitchen. “I can do it but it's too hard to train the other teachers.” And if children don't like to clean up what can you do?
- Adults teach children about nutrition at mealtime.
 - It's hard to teach children about nutrition. I say that “vegetables are good for you.” But I get kids who say “I don't eat that at home so why should I have to eat it here.” There should be more training on that because there's not a whole lot of stuff about it.”

Why it's hard...

■ Children are allowed to serve themselves.

- It's a lot of extra work to help them learn—a lot more attention. They serve themselves too much and then don't eat it. When it takes more time, other children who are waiting get anxious. If the kids are acting up it's just better to do it yourself. The children don't have a choice—it's defined by how much we have. If you give them more they're happy, you know? They have too much fun serving and don't want to quit.

■ Adults eat the same food as children.

- It's hard to eat the same food as children when the food it isn't presentable. It's hard for me because of my tastes.

Why it's hard...

- Adults sit at the table while children are eating.
 - Adults sitting at the table—sometimes you have to get up. For breakfast, since kids come in at all different times, this is hard. Tables are too crowded. We can't just sit down and relax, we're busy.
- A variety of foods are served that broaden children's food experiences.
 - Variety of food is limited by cost and availability. It's hard to justify spending the money if they aren't going to eat it. Sometimes, families' beliefs impede a child's opportunities to taste foods—whether or not he/she wants to isn't the issue. If they don't eat what's offered you have to find something they *will* eat. We have 6 week food menus.

Why it's hard...

- Children are allowed to decide the amount of foods they eat.
 - It's hard to let children control how much they eat when they only want to eat bread. It's hard to let a child decide not to eat. Their parents will blame you if they don't eat.
- Children are encouraged to taste all foods
 - “Children just don't like vegetables. They say ‘*teacher, you eat it*’ and that's really hard.” I'll just say “why don't you take a rat-bite?” I'm sure I don't force but do I encourage enough? It's especially hard with the babies: if they don't like it they just spit it out. The children are spoiled and they will cry until they're done and then they'll taste it.

Provider Weight & Weight History

- Obese providers scored higher than normal weight providers
- Those currently trying to lose weight scored lower
- Those who were dissatisfied with their weight (currently or as a child) scored lower
- Providers who experienced tense mealtimes scored lower

Low Score = Low Control

Median hourly earnings of child care services, May 2004

Occupation	Child care services	All industries
General managers	\$23.78	\$37.22
Education administrators	16.01	17.18
First-line supervisors/managers	11.70	14.59
Preschool teachers, except special education	9.34	10.09
Office clerks, general	9.12	10.95
Janitors and cleaners	8.04	9.04
Cooks, institution and cafeteria	7.93	9.10
Child care workers	7.34	8.06

Interviews with Providers

- Seek information on issues about which we were unclear or where there is provider ambivalence

- 1 hour interviews
 - Demographic information
 - Mealtime environment
 - Mealtime roles
 - Perceptions of children's weight
 - Eating history
 - Guidelines—what they do and what is hard to do



Provider Characteristics

■ Ethnicity

- 58% NHW
- 27% Hispanic (90% English as 1st language)
- 5% Black
- 3% Asian
- 7% American Indian or Alaska Native & Other

■ Education

- 21% high school or less
- 40% some college to CDA
- 16% Associates Degree
- 22% BS or higher



What do parents think you should do?

- Parents... I like to be very open as far as letting the parents come in...have lunch with us. I want them just to kind of feel like it's an extra room in their house...they can come in anytime. And I tell them, "Some days it will be chaotic, some days it will be perfect."
- I think, you know, some are pretty adamant that we make sure that they don't have their treat before they've eaten their other stuff and then some are more lackadaisical about it...they could care less... Obviously, that's up to them. At least we tried, so...



Provider Characteristics

■ BMI		Rating (%)
– <18.5	2.6	(6)
– 18.5-24.9	46.5	(37)
– 25-29.9	27.0	(34)
– >30	23.8	(22)
■ Currently dieting	58%	
■ Weight satisfaction	15% (37% OK)	
■ Physical activity	53%	

