

## Building a Culture of Health for Our Nation's Children

Presented by Wendy Slusser, MD, MS, and Dena Herman, PhD, MPH, RD  
Moderated by Sylvia Melendez Klinger, MS, RD



FREE 1-CREDIT CONTINUING EDUCATION WEBINAR

Suggested Learning Codes: 4010, 4030, 4150; Level 2

### Learning Objectives

1. Identify at least three evidence-based interventions to prevent obesity among preschool children.
2. Describe the parent training intervention and identify at least 2 social learning strategies used in parent training sessions.
3. Report on the results from the parent training evaluation.
4. Identify at least two opportunities for dietary guidelines for preschoolers to help support population health.

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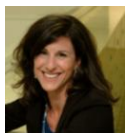
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## Disclosure



**Wendy Slusser, MD, MS**  
Serves as a consultant to Dannon.



**Dena Herman, PhD, MPH, RD**  
Serves as a consultant for Amway/Nutrilite.



**Sylvia Melendez Klinger, MS, RD**  
Has served as a consultant to Dannon, Kellogg's, Grain Foods Foundation, Aldi and Coca Cola.



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## Agenda

1. **Landscape: Understanding early childhood and dietary guidance**
2. Child Obesity: Why parent training and community based education
3. Application: Call to action and resources



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## Q&A

What age groups do the current Dietary Guidelines for Americans (DGAs) include for children?

- A. Birth to 24 months
- B. 3 -5 years of age
- C. All of the above
- D. None of the above



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## Correct Response

What age groups do the current Dietary Guidelines for Americans (DGAs) include for children?

- A. Birth to 24 months
- B. 3 -5 years of age
- C. All of the above
- D. **None of the above**



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## What Are the Dietary Guidelines for Americans?

- Provide evidence-based advice for making food and physical activity choices that help people attain and maintain a healthy weight, reduce their risk of chronic disease, and promote overall health.
- Traditionally focused on adults and children 2 years of age and older but specific information for the younger age groups is not provided to date
- However, growing demand to better understand and specify needs of young



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**Why is the Development of Dietary Guidelines for Children 3-5 years of age Group so Important?**

- Preventing obesity involves promoting healthful eating and regular physical activity to maintain a healthy weight.
- Understanding what amounts of foods and the types of foods necessary for young children will be key to these efforts



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**MYTHS Q&A**



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**True or False?**

Childhood obesity isn't really a problem until the elementary school years.



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### True or False?

Childhood obesity isn't really a problem until the elementary school years.

**False.** About 10 % of infants and toddlers have high weights for their length, and more than 20 % of children aged 2-5 already are overweight or obese.



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### True or False?



Parents recognize when their children are overweight or obese.



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### True or False?



Parents recognize when their children are overweight or obese.

**False.** Studies show that mothers tend to underestimate their children's weight.



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### True or False?

Most young children get enough sleep.



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### True or False?

Most young children get enough sleep.

**False. The obesity epidemic has been paralleled by a similar epidemic of sleep deprivation, with the most pronounced decreases seen in children under 3 years of age.**



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### Current Developments on Constructing Dietary Guidelines for Children Ages 3-5 years

- 2015 DGAC meetings have discussed information related to children 3 to 5 years of age
- Five subcommittees designated by the DGAC to do research for DGAs
- Subcommittee 4: "Food and Physical Activity Environments" most focused on researching and addressing children's DGAs.



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## Meeting 2 – January 13-14, 2014

• Subcommittee 4: Food and Physical Activity Environments established.

- Objective: to review evidence on effects of environment on diet and physical activity behaviors and health outcomes with goals of evaluating effectiveness of:
  - Early child care environment interventions on dietary intake, weight, and eating behaviors.



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## Subcommittee 4 Progress Update

• Examples of key questions identified for further investigation.

- Early childhood (2-5 years):
  - What early childhood education programs policies and practices had a positive effect on dietary intake and eating behavior?
  - What is the effect of early childhood education dietary interventions on dietary intake, dietary quality, and behavior?



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## Birth- 24



- DGAs traditionally focused on adults and children 2 years of age and older.
- However, because of unique nutritional needs, eating patterns, and developmental stages of infants and toddlers from birth to 24 months of age, a special group was formed to address these needs.



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## The Inception of the B-24 Project

- USDA and the USDHHS initiated project called the **Birth to 24 Months Dietary Guidance Development Project**.
- Implemented a five phase plan, with goal of having birth to 24 months guidelines in the DGA by 2020.
- Currently the project is:
  - Developing a framework and transparent process for the rest of the study
  - Creating representative Federal Expert Group to provide assistance and oversight throughout the guidance development process.
- Next phase expected to begin January 2015



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## Agenda

1. Landscape: Understanding early childhood and dietary guidance
2. **Child Obesity: Why parent training and community based education**
3. Application: Call to action and resources



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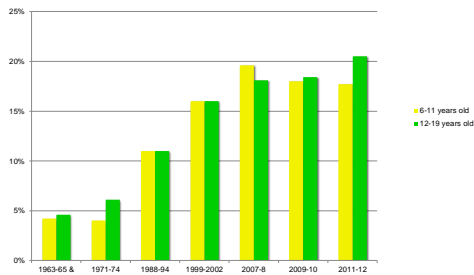
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## Obese\* Children Ages 6-11 and 12-19 in the U.S.

\*BMI ≥95th percentiles



(Ogden et al, JAMA, 2010; Ogden et al, JAMA, 2012; Ogden et al, JAMA, 2014)

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## Correct Response

- A. Larger portion sizes
- B. Poor routines
- C. No fat child left behind
- D. Lack of early detection
- E. Low exclusive breastfeeding rates
- F. **All of the above**



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## Why Intervene Early?

2-5 year olds are overweight and obese:



(Ogden et al, *JAMA*, 2014)



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## Why Intervene Early & Focus on Parents?



- Parents have a profound influence on the eating and physical activity habits of preschool-age children.
- Parents play a key role in molding their children's physical activity and eating behaviors.

(Institute of Medicine, 2011)



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## IOM Report: Early Childhood Obesity Prevention Policies

- Recommends policies that alter the environment and nutrition of a 0-5 year olds to promote healthy weight.
- Recommendations focus on assessment, healthy eating (including breastfeeding), marketing, screen time, physical activity and sleep.

(Institute of Medicine, 2011)



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## Why Focus on Latino Children?



- Latino children have a high risk for developing morbidities associated with overweight.
- Latino children are disproportionately represented among those who are overweight.



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## UCLA Pediatric Overweight Prevention Through Parent Training

### The Purpose:

To examine the effects of a multi-component Parent Training Program on the prevention of overweight and obesity among Latino children ages 2-5 years old.



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## The Goal



Reduce BMI percentiles in the intervention groups over a 1-year period, reversing the upward trend in weight.



Increase fruit & vegetable consumption, decrease fat consumption, & reduce low-nutrient food & liquid intake.



Increase physical activity and reduce sedentary activity.



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## Development of Parent Training Classes

- Merged
  - Evidence Based Parent Training based on Social Learning
  - Evidence Based Nutrition and Physical Activity Interventions
- Classes reviewed by WIC Nutritionist, Latina Mother, Dietician, Pediatrician, Social Worker, and Psychologist and pilot tested with follow up questions with the participants and then revised for study.
- Study funded by Joseph Drown Foundation, Simms Mann Family Foundation and administered through the Venice Family Clinic and UCLA.



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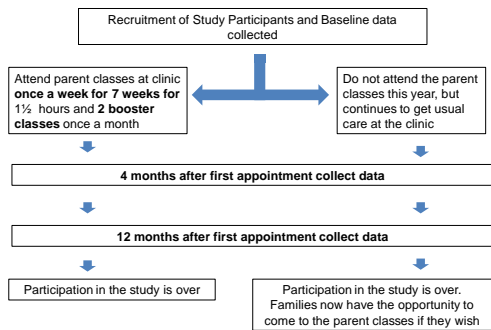
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## The Research Plan



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## Parenting Component

Class Structure (1.5 hours):

- **Homework Review** (30 minutes)
  - Successes
  - Challenges
- **Skills Learning** (didactic and demonstrations) (30 minutes)
- **Practice** (modeling and role playing) (30 minutes)



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## Parenting Component



Covered the following topics:

- Praise
- Routines
- Commands
- Ignore
- Setting limits
- Time out



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## Routines

Schedule In	Assigning Times	Most Common Mistakes	In Practice
<ul style="list-style-type: none"> <li>• Nap time</li> <li>• TV time</li> <li>• Meals &amp; Snacks</li> <li>• Exercise/ Playtime</li> </ul>	<ul style="list-style-type: none"> <li>• Move backward</li> <li>• Plan for children's speed</li> </ul>	<ul style="list-style-type: none"> <li>• Get up too late</li> <li>• Put children to bed too late</li> </ul>	



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## Routines: Evidence Based

- Children in childcare were protected from obesity compared to those children cared for by parents or relatives.
- 40% lower prevalence of obesity among children exposed to 3 house-hold routines (of regularly eating the evening meal as a family, obtaining adequate nighttime sleep, and having limited screen-viewing time) compared to those not exposed.

(Maher et al, *Pediatrics*, 2008; Anderson et al, *Pediatrics*, 2010)



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## Objectives of Nutrition and Physical Fitness

1. To increase caregiver's knowledge about Dietary Guidelines.
2. To teach families strategies to increase physical activity opportunities into their daily lives and to reduce screen time.
3. To teach families how to practice behavior modification strategies such as self-monitoring.



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## Objectives of Nutrition and Physical Fitness

4. To teach parents food strategies to increase vegetable and fruit food preferences for their children.
5. To teach parents not to use food as rewards or punishments.
6. To teach families how to increase accessibility and availability of healthy foods.
7. To identify barriers to healthy life styles and review strategies to minimize them.



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### Basic Healthy Lifestyle Eating & Activity Habits: Evidence Based

- Involve the whole family in lifestyle changes.
- Cultural sensitivity.

#### Strong Evidence (Krebs et al. *Pediatrics*, 2007)

- Minimize Sugar-sweetened beverages with a goal of 0.
- Increase meals prepared at home.
- Education and modification of portion sizes.
- Reduction of inactive time to < 2 hours/day and if less than 2 years old to 0 time.
- Increasing active time for children and families to >=1 hour each day.



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### Basic Healthy Lifestyle Eating & Activity Habits: Evidence Based

- Involve the whole family in lifestyle changes.
- Cultural sensitivity.

#### Weaker Evidence\* (Krebs et al. *Pediatrics*, 2007)

- Increasing to 5 fruit & vegetable servings or more per day.
- Reduction of 100% fruit juices.
- Consume a healthy breakfast.
- Reduce foods that are high in energy density.
- Meal frequency and snacking.

\* May be important for some individuals.



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## Major Theme: Keep it Simple

### Reading Food Labels:

#### • 5 Ingredients to Avoid (5 Ingredientes para Evitar)

- Sugar
- High Fructose Corn Syrup
- Enriched Flour/White Flour
- Hydrogenated Oils (ex: partially hydrogenated soybean oil)
- Saturated fat & Trans fat



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## Portions

Examples of portion sizes



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## Education and Support: 5 - 2 - 1- 0 Blastoff!

5	5 or more fruit and vegetable servings per day.
2	No more than 2 hours of screen time per day for 2 year olds and over and 0 time for under 2.
1	1 year or more of breastfeeding with appropriate foods introduced at around 6 months.
0	0 sweetened beverages.
<b>Blastoff</b>	Move, be active, and have fun!



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## Healthy Snacks

- Provided at each of the Parent Training Sessions.
- Parents are given the snack during the classes.
- Children are given the snack at the end of the 1½ hour class.



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## Parent Education Yes/No Guides and Healthy Snack Tastings

**YES**

- Provide information on the importance of healthy eating and physical activity.
- Provide information on the importance of breastfeeding.
- Provide information on the importance of immunizations.
- Provide information on the importance of regular checkups.
- Provide information on the importance of safe car seat use.
- Provide information on the importance of safe swimming.
- Provide information on the importance of safe use of prescription and over-the-counter medications.
- Provide information on the importance of safe use of alcohol, tobacco, and other substances.
- Provide information on the importance of safe use of firearms.
- Provide information on the importance of safe use of power tools.
- Provide information on the importance of safe use of household chemicals.
- Provide information on the importance of safe use of pesticides.
- Provide information on the importance of safe use of prescription and over-the-counter medications.
- Provide information on the importance of safe use of alcohol, tobacco, and other substances.
- Provide information on the importance of safe use of firearms.
- Provide information on the importance of safe use of power tools.
- Provide information on the importance of safe use of household chemicals.
- Provide information on the importance of safe use of pesticides.

**NO**

- Provide information on the importance of healthy eating and physical activity.
- Provide information on the importance of breastfeeding.
- Provide information on the importance of immunizations.
- Provide information on the importance of regular checkups.
- Provide information on the importance of safe car seat use.
- Provide information on the importance of safe swimming.
- Provide information on the importance of safe use of prescription and over-the-counter medications.
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- Provide information on the importance of safe use of firearms.
- Provide information on the importance of safe use of power tools.
- Provide information on the importance of safe use of household chemicals.
- Provide information on the importance of safe use of pesticides.

### Healthy Snacks

**Week 1:** Low-fat Vanilla Yogurt with raisins and granola

**Week 2:** Banana & Strawberry Fruit Salad and unsalted pretzels


**Week 3:** Hummus, Guacamole, and carrot sticks

**Week 4:** Corn & Bean Salsa with Flat Bread Crackers

**Week 5:** Whole Wheat Tortilla crackers and Melon Salad (i.e. Watermelon, Cantalope, and HoneyDew)

**Week 6:** Low-fat Havarti Cheese with Flat Bread Crackers and cut up apples

**Week 7:** repeated Low-fat Vanilla Yogurt with raisins and granola



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## Progress to Date



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## Baseline Population

Sample Characteristics and Comparison of Parent Training (PT) and Wait List (WL) Conditions for Families of Children with Baseline BMI  $\geq 50$  Percentile

Variable	Group		p
	PT M (SD) n=61	WL M (SD) n=60	
Maternal Age (yrs)	31.7 (5.2)	31.5 (6.1)	.65
Maternal Education (yrs)	9.0 (3.7)	9.1 (3.9)	.87
Maternal BMI:			
% Under Weight	1.5	0	
% Normal Weight	23.0	30.0	
% Overweight	39.3	30.0	
% Obese	36.1	40.0	.49
Child % Male	44.3	43.3	.87
Child BMI:			
% Normal Weight	44.3	61.7	
% Overweight	28.2	16.7	
% Obese	28.5	21.7	.16

(Slusser et al, *Child Obes.*, 2012)

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## Results

(Slusser et al, *Child Obes.*, 2012)

Parent and Child Characteristics		
Variable	Group	
	PT (61)	WL (60)
<b>Health Insurance</b>		
Medical/Healthy Families	54	53
<b>Childcare</b>		
No Childcare	57	53
<b>WIC</b>		
WIC Participation	56	57
<b>Child Birthplace</b>		
Mexico or Central America	5	5
United States	56	55
<b>Mother Birthplace</b>		
Mexico	50	47
<b>Father Birthplace</b>		
Mexico	46	40
<b>Marital Status</b>		
Married	45	42
<b>Child Birthweight</b>		
Normal Birthweight	47	54

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## Results

Comparison Parent Training (PT) to Wait List Control (WL) Z-score Changes from T1=Baseline to T3=12 Months after Baseline

n=121	Parent Training		Wait List	
	n=61 M (SE)	P	n=60 M (SE)	P
Z Score Difference (T3-T1)	-0.20 (0.08)	.01	0.04 (0.09)	.64
<b>Difference Between PT and WL Changes after 1 year</b>				
			M (SE)	P
			-.24 (.11)	.04

(Slusser et al, *Child Obes.*, 2012)



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## Results

**Preliminary 4-month post Intervention results for parent training group (p<0.05)**

- Fruits in the children's home: increased
- Vegetables in the children's home: increased
- Parents increased their monitoring of their child's weight/food intake
- Parents felt more comfortable sticking to healthy choices
- Parents felt more confident in their ability to stick to an exercise routine

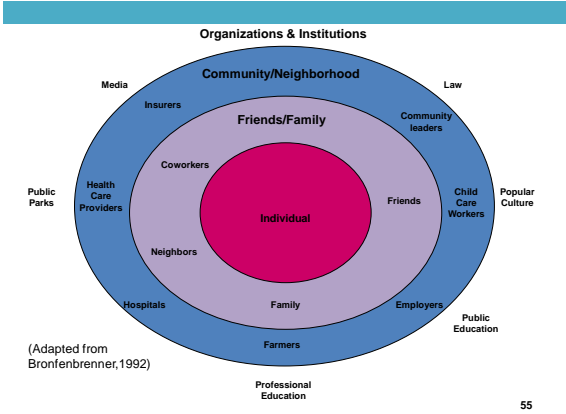


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## Personal Goals



- Become a role model**
- Provide support for healthier environments for your employees and colleagues
  - Exercise regularly



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## Haiku by Samuel Bruce 3rd Grader May 2002

Fruit comes from flowers.  
 Fruit is very good to eat.  
 I like to eat fruit.



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# Agenda

1. Landscape: Understanding early childhood and dietary guidance
2. Child Obesity: Why parent training and community based education
3. **Application: Call to action and resources**



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# CALL TO ACTION

How Can Public Health Nutritionists, Dietitians and Nutrition Educators become Involved?



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# Ways to Become Involved

**Idea 1: Provide your comments to DGAC during their "open comment period"**

For example:

- Explain how myths about the development of early childhood obesity can be prevented by specifying dietary guidelines for this age group
- Emphasize importance of role of registered dietitians/public health nutritionists in implementing DGAs for these age groups to ensure proper and sustainable application.



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## Credit Claiming

You must complete a brief evaluation of the program in order to claim your credits and download your certificate. The evaluation will be available on [www.CE.TodaysDietitian.com](http://www.CE.TodaysDietitian.com) for 3 months; you do not have to complete it today.

### Credit Claiming Instructions:

1. Go to [www.CE.TodaysDietitian.com/ChildObesity](http://www.CE.TodaysDietitian.com/ChildObesity) OR Log in to [www.CE.TodaysDietitian.com](http://www.CE.TodaysDietitian.com) and go to My Account→ My Activities →Courses (in Progress) and click on the webinar title.
2. Click "Continue" on the webinar description page. Note: You must be logged-in to see the "Continue" button.
3. Select the Evaluation icon to complete and submit the evaluation.
4. Download and print your certificate.

**Please Note:** As this is an evening webinar, customer service will not be available until 9 am ET on Thursday, June 26.

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