

# Effective Healthy Weight Strategies for Child Care Settings

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# Child Care = Early Care & Education

- Early years are a critical developmental period
- More than 60% of US children are in some kind of out-of-home care arrangement
- These arrangements are best referred to as:
  - “Early care and education” or ECE
  - May be centers, family homes, Head Start, PreK
- ECE may be a “missed opportunity” for obesity prevention (Story et al., Future of Children, 2006)
- Outcomes may be healthy weight, diet, PA

*Note: Most research has focused on centers or Head Start; little information on family CC or infant/toddler care*



# Levels of Influence



Reynolds et al. J Law Med Ethics.  
2013 Winter;41 Suppl 2:8-18.

Multi-Level Opportunities to  
Promote Healthy Practices



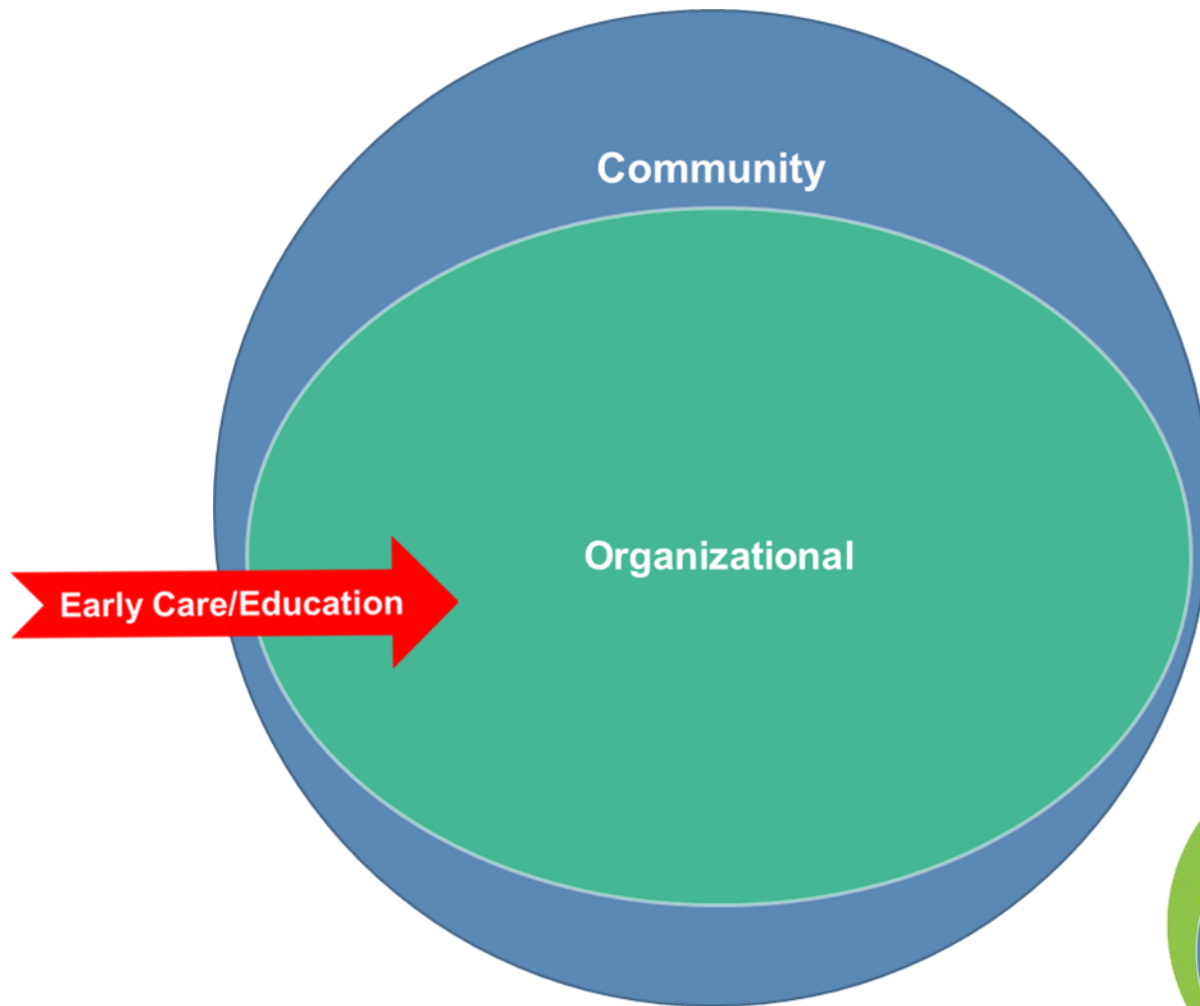
# Public Policy Level

Public Policy

1. Regulatory requirements (e.g., state or municipal licensing)
  2. Diet and/or activity standards included in quality rating & improvement system (QIRS)
  3. Funding and finance (funding tied to enhanced standards)
  4. Early learning standards (e.g., requirements for what is taught in ECE)
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- NYC Policy. Kakietek et al., and Stephens et al., Preventing Chronic Disease, 2014
- Hypothetical cost-effectiveness model. Wright et al., Am J Prev Med, 2015





# Organizational Level



1. Improving overall policies and practices at the facility level\*
  - Foods/beverages served
  - Amount of physical activity provided
  - Limiting sedentary time
    - Screen use
    - Time sedentary
2. Obtaining external ECE certification or rating\*\*

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\*Bonis et al., Childhood Obesity, 2014

\*Alcon et al. BMC Public Health, 2014

\*Natale et al., Health Prom Prac, 2014

\*Finch et al., IJBNPA, 2012

\*Drummond et al., Health Promot Prac, 2009

\*Ward et al, Am J Prev Med, 2008

\*\*Dowda, Pate, Pediatrics, 2009



# Organizational Level\*



3. Using standard curricula approach to increase healthy eating and/or physical activity



## Curriculum



\*Promising



# Organizational Level



## 4. Providing structured PA lessons

- Increases overall PA and/or fundamental motor skills
- More consistent outcomes with experts than with existing teachers

## 5. Training and technical assistance (TA) contributes to teachers' ability to provide PA lessons

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Annesi et al., 2013; Alhassan et al., 2012;  
Fitzgibbon et al., 2011; Trost et al., 2008;  
Parish et al., 2007 ;Reilly et al., 2006;  
Binkley & Specker, 2004





# Organizational Level\*



## 6. Improvements in quality of outdoor play environment

- Including open areas, looping cycle pathways, grass hill
- Providing portable play equipment associated with increase in children's PA
- More space per child (playground density)

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Smith et al., Am J Health Prom., 2014  
Nicaise et al., Ped Exerc Sci., 2012;  
Cosco et al., MSSE, 2010;  
Bower et al., Am J Prev Med, 2008;

\*Promising



# Organizational Level\*



- Other PA modifications with potential
  - Providing more vigorous activity (VPA) (Collings et al. Am J Clin Nutr, 2013)
  - Reduce sedentary time (e.g., no chairs at some tables; regular breaks from sitting)\
  - Energizers during lessons (activity breaks)
  - Activity embedded within Circle Time, centers, transitions

\*Gaps



# Organizational Level\*



- Other eating-related modifications with potential
  - Offering fruit or veggie prior to main offering
  - Offering regular food tasting, cooking
  - Creating a garden at the ECE program (planting, tasting, eating)
  - Firm policies on foods brought from home/celebrations
  - Use of family-style dining

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\*Gaps

For review of healthy eating strategies in ECE: see:  
Mikkelsen et al., 2014, Nutr J & Ward et al., 2015



# Interpersonal



# Interpersonal Level: staff \*

## Healthy Eating

- Role modeling
- Praising
- Providing informal education
- Prompting
- Use of responsive feeding practices (fullness, hunger)
- Not using food as treat or bribe

Interpersonal



\*Promising & gap

# Interpersonal Level: staff \*

## Regular Physical Activity

- Role modeling
- Praising
- Providing informal education
- Prompting
- Joining in activity
- Not withholding PA
- Not using PA to punish

Interpersonal



\*Gap

# Interpersonal Level: parents\*

## Parent Engagement:

- Importance of parent support can not be overlooked
- Meaningful engagement results in better outcome
- Needs to be more than passive (e.g., just sending materials home)
- Examples include:
  - Hip Hop to Health, Jr. (Fitzgibbon et al., 2010)
  - Healthy Caregivers-Healthy Children (HC2) (Natale et al., 2014)

Interpersonal



\*Promising

# Interpersonal Level: staff health\*

- Most ECE staff are considered low-income wage earners
- Although few studies exist on ECE staff health, data show poor health status, including obesity, poor diets, inactivity, stress, sleep irregularities, smoking, and other negative health outcomes
- Being asked to serve as role models, leaders, and educators
- Unclear impact of their health behaviors/health status on child behavior

Interpersonal



\*Gap



# Multi-Level Approaches Needed



- Efforts are needed at multiple levels
- Opportunities exist at each level of SEM
- Interventions that target multiple levels may be more successful



# Hip Hop for Health, Jr.

(Fitzgibbons et al., 2005, 2010)

- Head Start Centers (n=12 AA; 12 Latino)
- RCT
- 20 min healthy eating; 20 min PA; parent component
- 2-3 sessions per wk. for 14 wks.
- Nutrition experts (efficacy study) and teachers (effectiveness study) implemented
- Efficacy results: ↓ BMI-Z\*
- Effectiveness results: ↑ MVPA

(\*NS results in Latino centers (efficacy study))



# Successes



- Public policy efforts
- Organizational level interventions to change nutrition/PA environments
- Regular physical activity lessons by trained personnel to increase PA and motor skills
- Use of nutrition (promising) and PA curricula in structured program offerings
- Training & TA support to teachers/staff to improve practice



# Research Gaps



- Family child care homes
- Infant/toddler programs (centers & homes)
- Role of VPA on children's weight trajectory
- Impact of limited physical space indoors (most) and outdoors (urban settings) on children's PA
- Role of teachers in developing healthy feeding and activity practices
- How does child care staffs' health (positively or negatively) affect children's behaviors
- Engaging parents and how ECE staff influence parent behavior



# Opportunities



- Partnering between ECE (licensing, standards, professional organizations) and public health professionals
- Creating and distributing training opportunities in healthy eating/activity for ECE teachers
- Develop partnerships with parents to support ECE
- Comprehensive wellness programs children, ECE staff & families



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