POD³ Triangle Regional Symposium
Healthy Early Childhood Outdoor Learning Environments
June 21st, 2013

Welcome!

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Healthy Early Childhood Outdoor Learning Environments
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Objectives
1. Raise awareness about the role of the outdoors in healthy early childhood development.
2. Offer innovative ideas and concepts to implement in childcare centers.

Activities
- Presentations
- Break out sessions
- First Environments Early Learning Center tour
The problem

Children aged 2 to 5 years in North Carolina
- 16.2% were overweight
  (85th to <95th percentile BMI-for-Age)
- 15.5% were obese
  (>95th percentile BMI-for-Age)

CDC, Division of Nutrition, Physical Activity, and Obesity. 2008 Pediatric Nutrition Surveillance System.

North Carolina ranks 5th worst in the US for childhood obesity
http://www.eastnortnewsnorth.com

Outdoors and healthy development

- Being outdoors is the strongest correlate of physical activity (Sallis et al., 1993)
- Diverse natural environments support attention functioning of children, gross motor development, children’s health, and richer play (Boldemann, 2006; Faber Taylor, A. et al, 2001; Grahn, P. et al, 1997).
- Preschool garden strategies are effective at generating interest in fresh produce among children (Benjamin, 2011).
Time outdoors reduces the prevalence of myopia (Rose et al 2008).

**Vitamin G**
“Green environments are an essential component of a healthy human habitat”

Frances Ming Kuo 2010

**Impact of gardening on healthy eating**

1. Vegetable and fruit gardening is associated with children’s acceptance of diverse vegetable and fruit tastes
2. Gardening is associated with frequency of vegetable consumption (Castro et al, 2013; Cabalda et al 2011)
3. Children learn about the origin of food in preschool gardens (Kos & Jerman 2012)
4. Gardening is regarded as a positive strategy to support healthy eating (Benjamin, 2011; Story et al. 2008)

**2007**
Effort by NC Outdoor Learning Environment Alliance

Playground redefined as Outdoor Learning Environment in DCDEE Child Care Rules
Low quality OLEs

DCDEE Survey of Perceptions of Quality of OLEs,
Division of Child Development and Early Education survey of Licensing Consultants and Environmental Assessors
N=195

- Poor: 36%
- Average: 54% → 90%
- Good: 7.5%
- Very Good: 1.2%
- Excellent: 0

Preventing Obesity by Design

Comprehensive project
- Design assistance
- Professional development
  - Webinars
  - Annual Design Institute
- Green Desk
- Evaluation

Evolution of POD

Statewide Survey of OLEs
Natural Learning Initiative, 2002

Preventing Obesity By Design (POD) Approach
1. POD 1 Pilot - 3 centers
2. POD 2 Statewide - 30 centers
  - CBSSNC Foundation
3. Outdoor Learning Environments Demonstrations
  - DPI, Office of Early Learning, 2010-2011
4. Shape NC - 19 centers
  - POD Outdoor Learning Environment (OLE) component
  - CBSSNC Foundation - NCPC, 2010-2013
5. Creating a Supportive Network - Licensing Consultants and Environmental Assessors
  - NC DCDEE (Division of Child Development and Early Education), 2011
6. POD Wake County - 8 centers
  - John Rex Endowment
  - Wake County Smart Start, 2012-2015
7. POD* - Transferring Knowledge, Building Capacity, Extending Reach
  - CBSSNC Foundation, 2012-2015

+62% increase designated vegetable gardens
N=26 centers
Preventing Obesity by Design POD-Wake

Planting Day

“I really like making plants”

Pre-post renovation survey results

More time outside in all seasons every day
Important findings

Pathways
Single and double loop pathways connected to the building were associated with higher levels of activity.

Important findings

Interactions
- Less custodial behaviors.
- Teacher interactions decreased the amount of children’s physical activity.

Objectives
1. Develop education modules for adoption by higher education institutions
2. Create regional action networks of trained professionals: Childcare providers, early childhood educators, regulators and assessors, physical activity, culinary arts, landscape designers/contractors
3. Offer technical assistance and mini grants to establish POD3 “Regional Outdoor Lab”
4. Regional symposia and interactive design workshops
5. Disseminate technical assistance and information resources through Natural Learning Initiative’s (NLI) Green Desk.
High quality environments promote whole child development