The STRONG Kids Initiative: A Cells to Society Perspective on the Early Determinants of Childhood Obesity

Presentation for the Early Childhood Working Group

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Overview of Presentation

- How I became an obesity researcher
- Overview of the STRONG Kids Research Team
- Overview – 6-Cs model of the determinants of early childhood obesity
- Overview – SK I longitudinal Study
- Overview of SK II Birth Cohort Study
- Questions
Pour Some Sugar On Me:

Children, Television, and Nutrition

Kristen Harrison
Dept of Speech Communication
University of Illinois
Synergistic Theory and Research on Obesity and Nutrition Group
STRONG Kids project

ILLINOIS
Family Resiliency Center
COLLEGE OF AGRICULTURAL, CONSUMER & ENVIRONMENTAL SCIENCES

ILLINOIS
College of Agricultural, Consumer & Environmental Sciences
STRONG Kids Research Team

- Multiple disciplines represented
- Transdisciplinary team
- Multiple research paradigms represented
- Emphasis on combining research and education efforts
- SK 1 and SK 2
6-Cs Model – Determinant of Childhood Obesity

Harrison, et al...STRONG Kids (2010). Child Development Perspectives
STRONG Kids I Longitudinal Study

- 300+ children aged 2
  - 36 centers in East Central Illinois
  - Yearly data collection
- Followed Children 3 years
  - Anthropometric data each year
    - BMI
  - Saliva samples – genetic markers
- Focus – teachers in centers
  - Dr. Dev’s dissertation data from these teachers
New Initiative
STRONG Kids II

- Birth cohort study
- Focus – intersect of biology and family environments in promoting healthy eating habits
- Multiple data collection points
- Extensive data collection
- Naturally occurring experiment – intent to breast feed during the first year of life
Preliminary Findings – SK II Data
Early Childcare Attendance as a Risk Factor for Later Childhood Obesity

- Mixed results – early childcare attendance & later obesity
- SK2 Participants – 3 groups
- Growth curves calculated
- Significant findings
- Troublesome results
Preliminary Findings – SK Data
Early Childcare Attendance as a Risk Factor for Later Childhood Obesity

Results: Rapid Growth
Rapid growth is a major risk factor for later weight and health related concerns (Ong & Loos, 2006)

Rapid growth in the 1st year is defined by change in weight-for-age Z-scores from birth to 12 months and classified into 2 groups (1=rapid growth [>$0.67 SD increase], 0=$0.67 SD increase) (Mehrshahi, Battistutta, Magarey, & Daniels, 2011)
Challenge for Early Childhood Working Group

Break Down Silo Approach
- Research, policy and practice