

An Overview of the Improving Feeding Practices in Childcare Settings Project: An Integrated Post-Doctoral Fellowship

Katherine E. Speirs
kspeirs@Illinois.edu

University of Illinois at Urbana-Champaign



United States Department of Agriculture
National Institute of Food and Agriculture



Family
Resiliency
Center

Strengthening families
for life's challenges.

Agenda

- Caregiver feeding practices
- USDA-NIFA post-doctoral fellowship
- Overview of the three components of my project
- Mentorship team

Caregiver feeding practices

- How adults feed children
- May reinforce or undermine a child's ability to self-regulate energy intake
- Linked to intake as well as food preferences



Controlling Feeding Practices



- pressuring the children to eat with rewards or punishments
- associated with overeating, eating unhealthy foods, eating in the absence of hunger, and lower enjoyment of healthy foods (Rodgers, et al., 2013; Bante, et al., 2008; Birch & Fisher, 2000; Fisher, et al., 2002; Gregory, Paxton, & Brozovic, 2010; Birch, Fisher, Davison, 2003; McPhie, et al., 2011)

If you finish your broccoli, you can have ice cream.

Clean your plate before you leave the table.

Just try one bite of your carrots.

Let's see a happy (empty) plate!

Mmmm. This tastes good. Don't you want to try some?

Responsive Feeding Practices



- encouraging children to recognize and express feelings of hunger and satiety and respecting these feelings when expressed
- using modeling or repeated exposure to encourage children to eat rather than pressure or rewards
- associated with improved diet quality and appropriate self-regulation of food intake (Savage, Fisher & Birch, 2007; Stanek, Abbott, & Cramer, 1990)

Are you hungry?

If you are still hungry, you can have some more.

Are you full?

Does this make your tummy feel happy (full)?

Which of these vegetables do you want to try?

Caregiver Feeding Practices in ECE

- 76% of 3-5 year old children spend time in non-parental care each week (National Center for Education Statistics, 2015)
- 3-5 year olds spend 28.2 hours per week in non-parental care (U.S. Department of Education, 2006)



Recognition of the importance of feeding practices in ECE settings

- **USDA Core Nutrition Messages:** 11 messages about child feeding (<http://www.fns.usda.gov/core-nutrition/child-feeding>)
- **Let's Move! Child Care:** "All meals to preschoolers should be served family-style."
(<https://healthykidshealthyfuture.org/>)
- **Position of the American Dietetic Association:** Benchmarks for Nutrition in Child Care
(<http://www.eatrightpro.org/resource/practice/position-and-practice-papers/position-papers/benchmarks-for-nutrition-in-child-care>)
- **IOM report on Early Childhood Obesity Prevention Policies:** Create a healthful eating environment that is responsive to children's hunger and fullness cues.
(<https://iom.nationalacademies.org/Reports/2011/Early-Childhood-Obesity-Prevention-Policies.aspx>)
- **Caring for Our Children: National Health and Safety Performance Standards; Guidelines for ECE Programs** Advocates use of family-style meal service & allowing children to taste, see, smell and touch new foods. "Caregivers/teachers should not force or bribe children to eat nor use food as a reward or punishment."
(http://www.healthybeveragesinchildcare.org/resources/CaringForOurChildren_NationalHealthandSafetyStandards.2011.pdf)

Project Background

- **long-term goal**: to address early childhood obesity by improving feeding practices in early care and education settings.
- **objectives**:
 1. **Research**: understand providers' knowledge, motivation, barriers, and behavioral skills concerning responsive feeding
 2. **Extension**: develop & evaluate online extension materials to help child care providers overcome barriers to responsive feeding
 3. **Education**: teach a cohort of undergraduate students about research and programing related to early childhood obesity prevention.

USDA – NIFA Fellowship Program

Priority Areas

1. Plant health and production and plant products;
2. Animal health and production and animal products;
- 3. Food safety, nutrition, and health;**
4. Renewable energy, natural resources, and environment;
5. Agriculture systems and technology; and
6. Agriculture economics and rural communities.

Challenge Areas

1. Keep American agriculture competitive while ending world hunger;
- 2. Improve nutrition and end child obesity;**
3. Improve food safety for all Americans;
4. Secure America's energy future; and
5. Mitigate and adapt to climate variability and change.

RFA:

http://nifa.usda.gov/sites/default/files/rfa/15_AFRI%20ELI_o.pdf

- **Research**: fundamental or applied research
- **Extension**: programs and activities that deliver science-based knowledge and informal educational programs to people, enabling them to make practical decisions.
- **Education**: formal classroom instruction, laboratory instruction, and practicum experience in the food and agricultural sciences and other related matters, such as faculty development, student recruitment and services, curriculum development, instructional materials and equipment, and innovative teaching methodologies.

Project Background

- **long-term goal**: to address early childhood obesity by improving feeding practices in early care and education settings.
- **objectives**:
 1. **Research**: understand providers' knowledge, motivation, barriers, and behavioral skills concerning responsive feeding
 2. **Extension**: develop & evaluate online extension materials to help child care providers overcome barriers to responsive feeding
 3. **Education**: teach a cohort of undergraduate students about research and programing related to early childhood obesity prevention.

Research

- understand providers' knowledge, motivation, barriers, and behavioral skills concerning responsive feeding

Survey

- Feeding practices
- Training needs and preferences
- Technology use and access
- Demographic information

Research

- understand providers' knowledge, motivation, barriers, and behavioral skills concerning responsive feeding

Interviews

- Mealtime structure
- Feeding strategies and rationale
- Helping children develop healthy eating habits
- Experience with training
- Feasibility of online training

Research

- understand providers' knowledge, motivation, barriers, and behavioral skills concerning responsive feeding

Interviews

- Mealtime structure
- Feeding strategies and rationale
- Helping children develop healthy eating habits
- Experience with training
- Feasibility of online training

	CACFP	non-CACFP
Home-based	10	10
Center-based	10	10
Head Start	10	

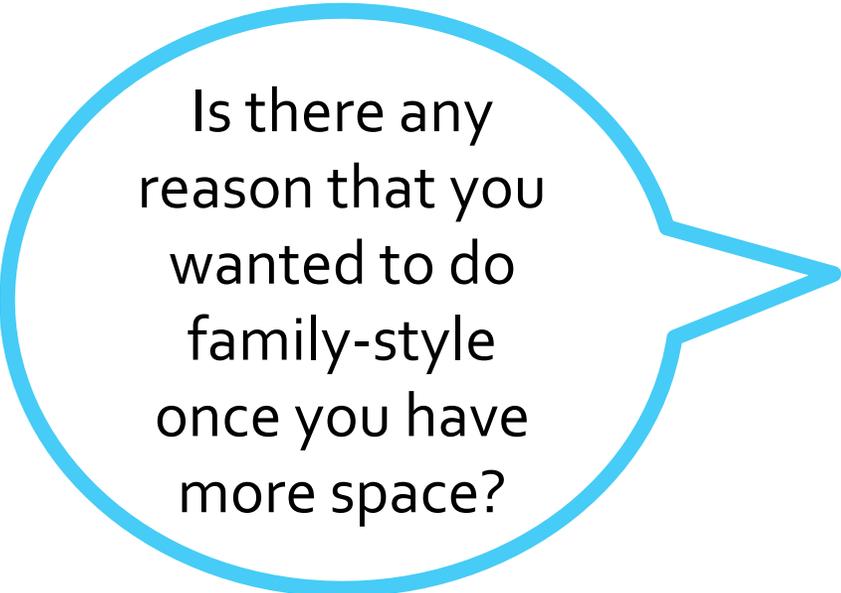
	Survey Sample		Interview Sample	
	n=340		n=52	
	n	%	n	%
Where do you provide child care?				
Home-Based Day Care	183	55	22	42
Center-Based Child Care	115	34	20	39
Head Start Center	37	11	10	19
CACFP				
Yes	251	74	30	58
No	70	21	22	42
Not sure	17	5	0	0
Race/Ethnicity				
White	238	74	39	75
African American	52	16	8	15
More than one race/ethnicity	15	5	0	0
Hispanic or Latino	8	3	1	2
Asian	7	2	3	6
Other	1	1	1	2
Education				
HS degree or GED	83	26	9	17
Associate's degree	100	31	15	29
Bachelor's degree	98	30	20	39
Master's degree or higher	40	12	8	15

Extension

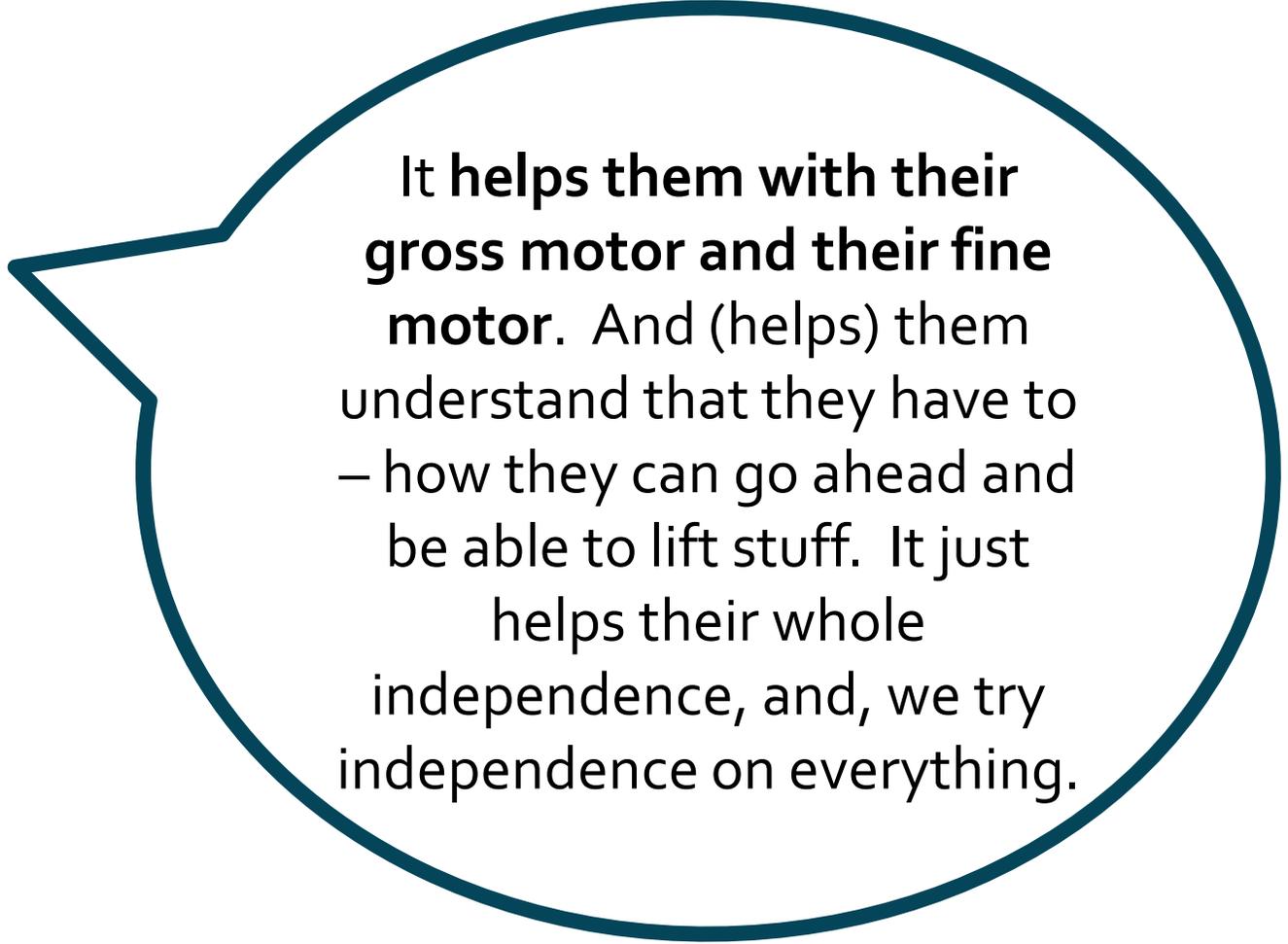
- develop & evaluate online materials to help child care providers overcome barriers to responsive feeding

Potential Topics

- benefits of family-style meal service for development of healthy eating habits



Is there any reason that you wanted to do family-style once you have more space?



It helps them with their gross motor and their fine motor. And (helps) them understand that they have to – how they can go ahead and be able to lift stuff. It just helps their whole independence, and, we try independence on everything.

If you were going to describe family-style to somebody who was just starting as a preschool teacher, how would you describe it?

I tell them family-style is important because **it helps (children) talk more.** And asking the open-ended questions, just keeps them going and having their mind clear where you can ask them a question or they can ask you a question. **It makes them feel more comfortable. They can trust you more.**

Extension

- develop & evaluate online materials to help child care providers overcome barriers to responsive feeding

Potential Topics

- benefits of family-style meal service for development of healthy eating habits
- ensuring that children eat enough without pressuring them to eat

We have some students who have a little difficulty finishing their meals or even getting started. So I'll sit with them for a little bit and encourage them to eat their meals.

I'll say, "Okay, I understand you don't want to eat everything on your plate." ... I don't want to force feed anyone. But I **say at least try three bites of everything** because you don't know, you might like it. And sometimes, that's a really challenging aspect of meal time because they don't even want to attempt to try it. I've had a lot of success with some of the more difficult picky eaters. **Recently, I have just been very stern with them. And I say, "Hey, you can't get up from the table unless you've eaten three bites of everything."**

Extension

- develop & evaluate online materials to help child care providers overcome barriers to responsive feeding

Potential Topics

- benefits of family-style meal service for development of healthy eating habits
- ensuring that children eat enough without pressuring them to eat
- talking with parents about childhood obesity and feeding practices

It's kind of a touchy subject when you discuss that with the families. Even from a teacher's standpoint, we have the family advocates as well as our nutritionists go with us to make sure we're saying the right thing, you know, and not offending someone.

We did send a letter home that had the (children's) heights and weights, if they were overweight or underweight. And **a lot of the parents got kind of angry about that**. They did not want to know, so we stopped doing that. I think they only do it if it's a major problem or something. **We had several, like, "Why are you telling me that my child is overweight?"**

Education

- teach undergraduate students about research and programing related to early childhood obesity prevention

- Flipped classroom
- Professional development
- Hands-on research experience



Kevin Tom
Economics



Audrey Hoene
Interdisciplinary
Health



Jenna Bhatt
Integrative
Biology

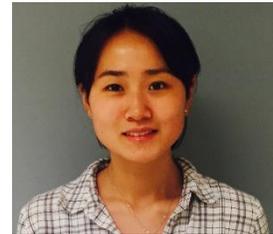


Passang Gonrong
Interdisciplinary
Health



Jenny Chang
Interdisciplinary
Health

HDFS
494
students



Jennie Chen
Integrative Biology



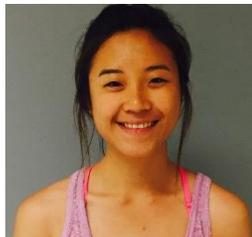
Elizabeth Tran
Molecular and Cell
Biology



Aisha Tepede
Community Health



Oveyaa Vignesh
Interdisciplinary
Health



Ruyu Liu
Interdisciplinary
Health



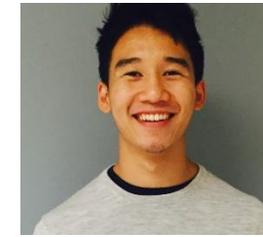
Amy Malinowski
Human Development
and Family Studies



Jessica Bustamante
Psychology

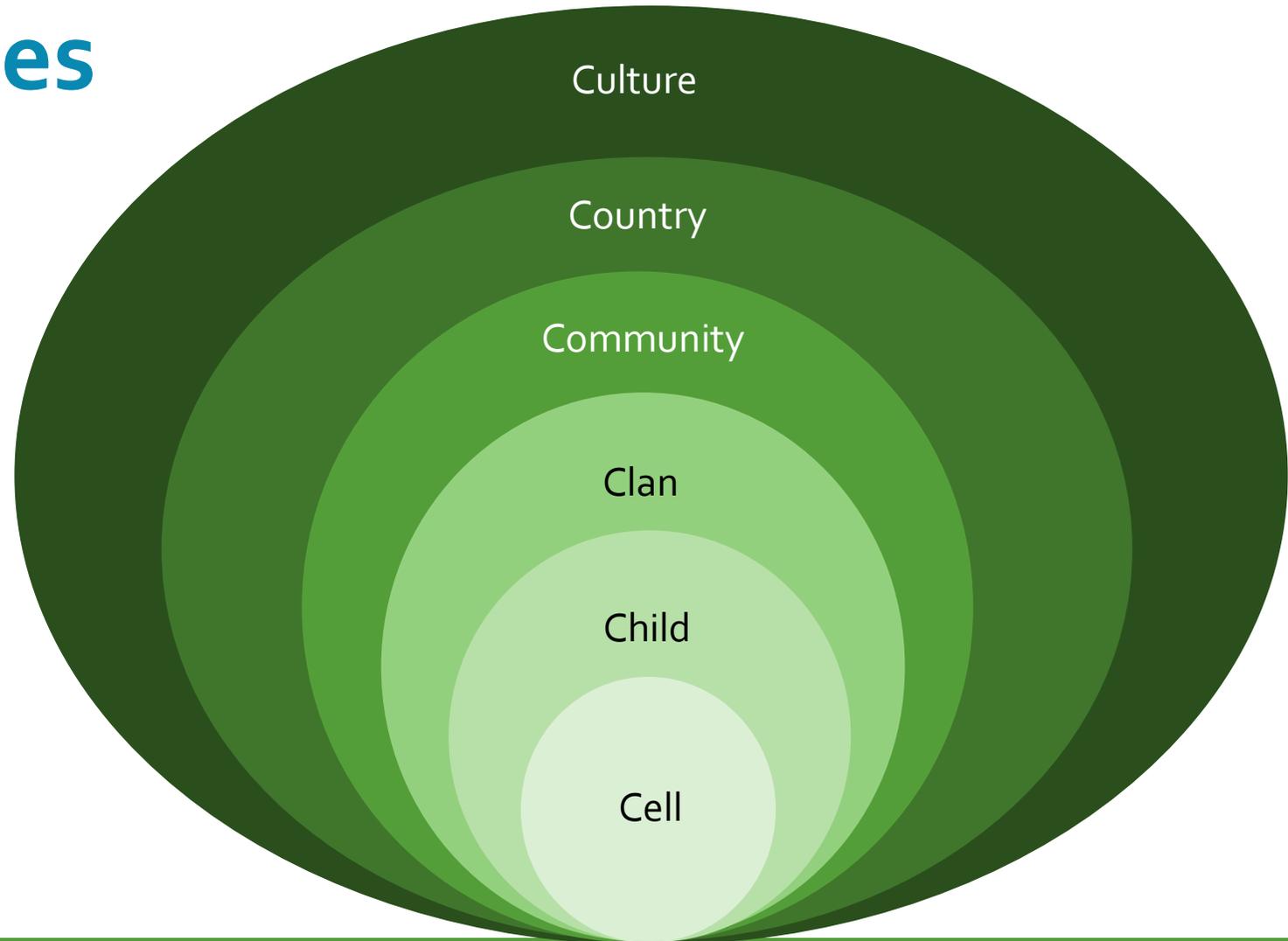


Emma Dahlberg
Interdisciplinary
Health



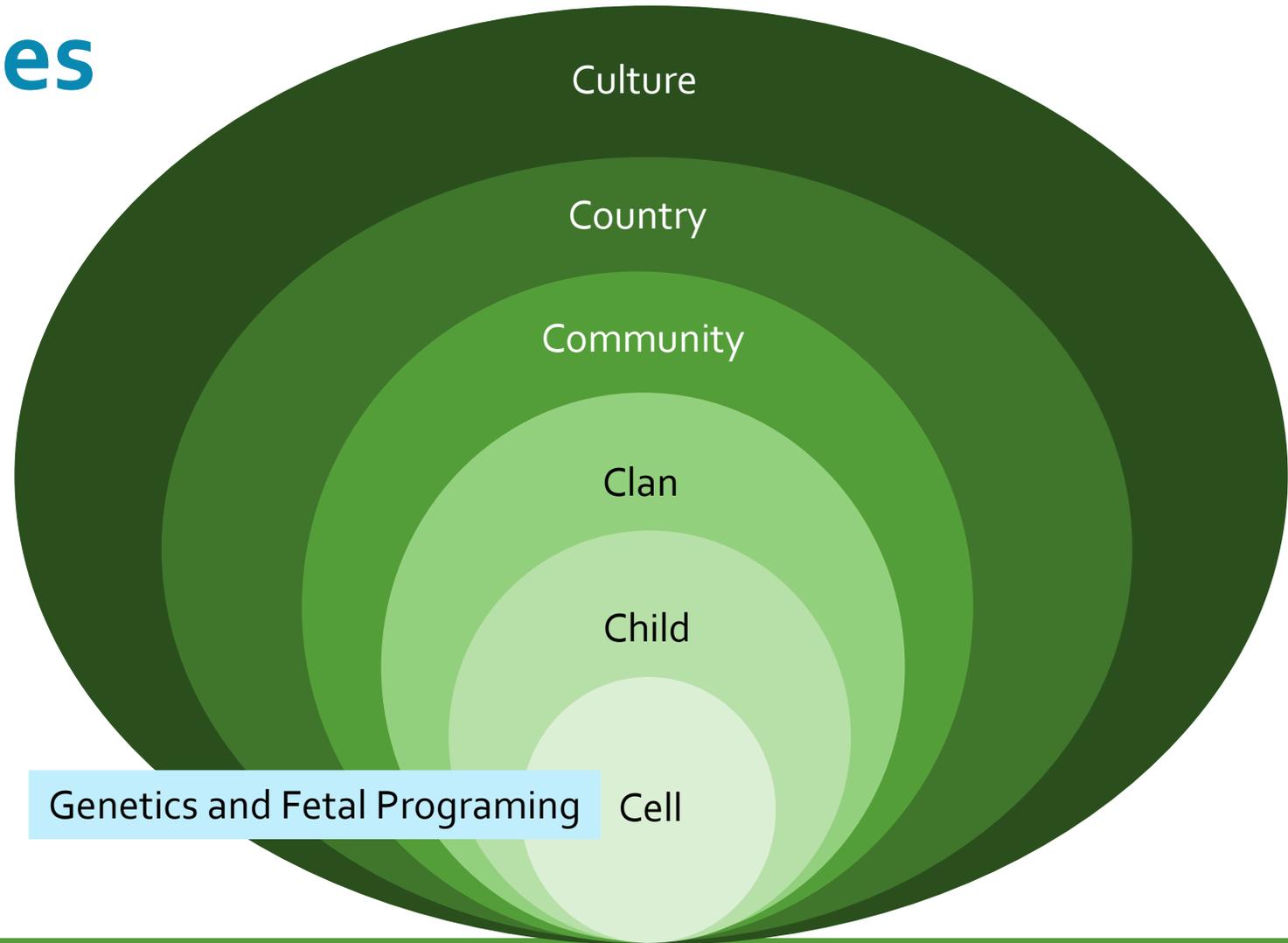
Kyle Hoang
Chemistry

HDFS 494: Transdisciplinary Obesity Prevention Research Sciences for Undergraduates

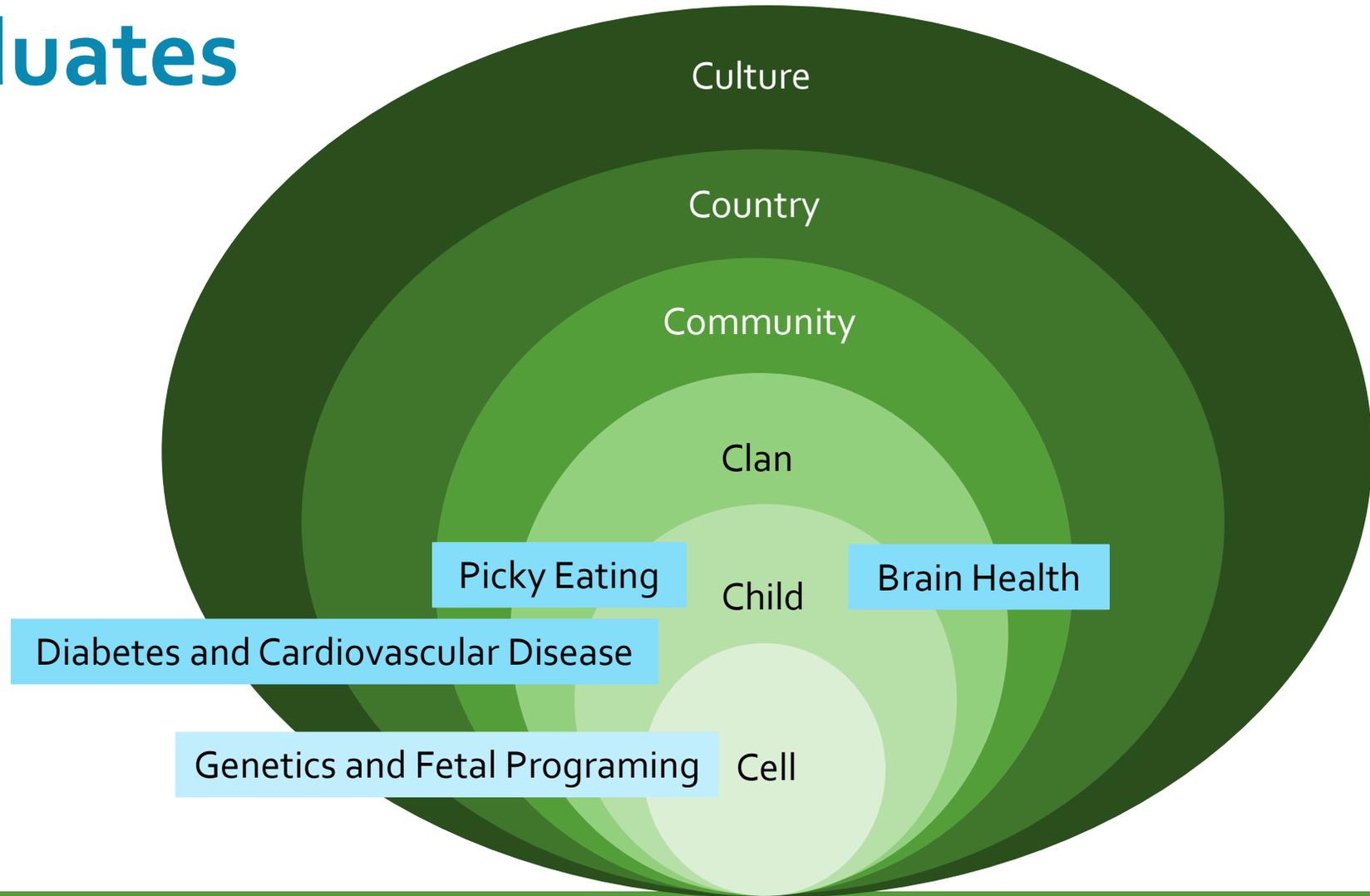


(Harrison, et al., 2011)

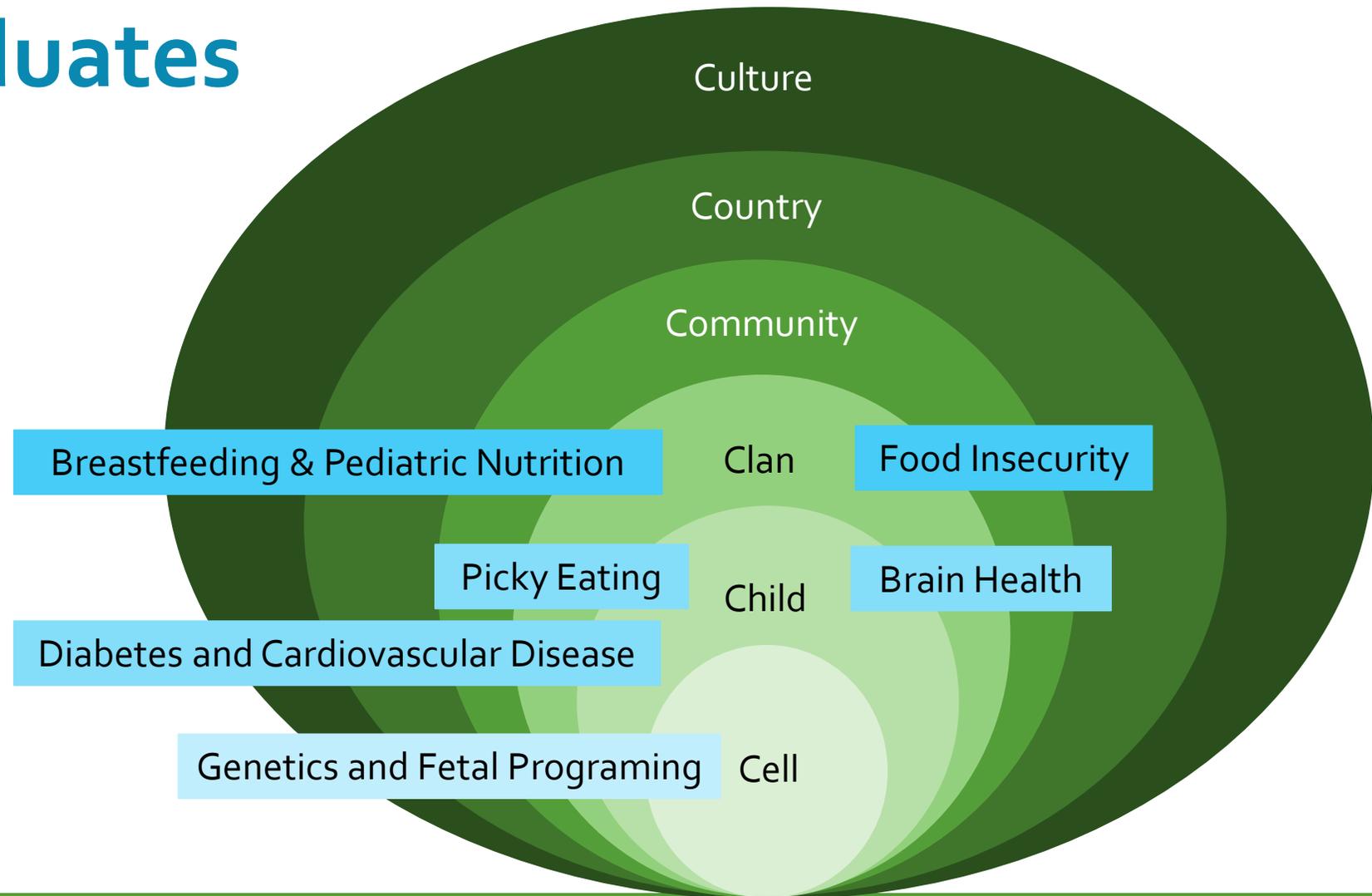
HDFS 494: Transdisciplinary Obesity Prevention Research Sciences for Undergraduates



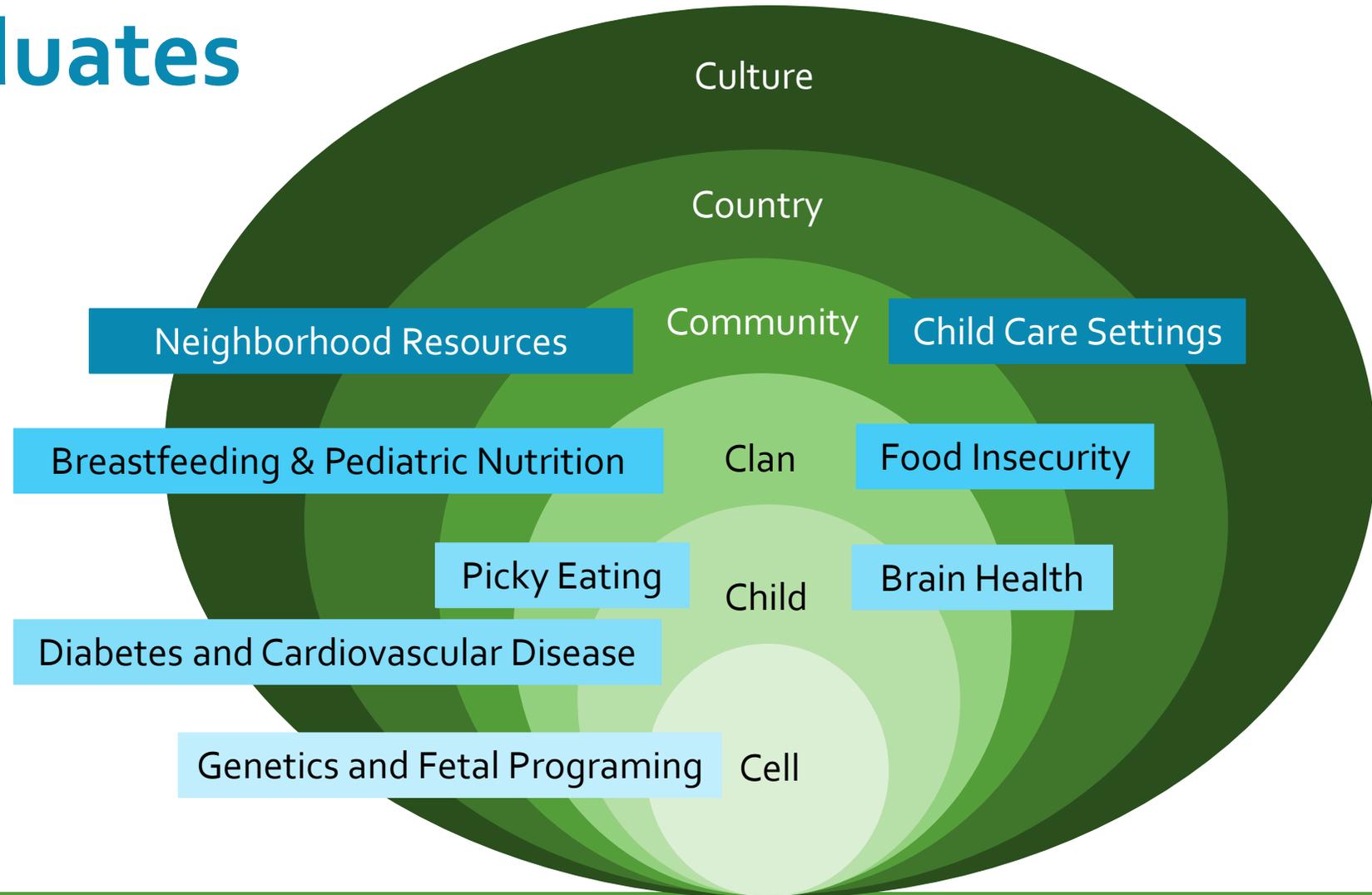
HDFS 494: Transdisciplinary Obesity Prevention Research Sciences for Undergraduates



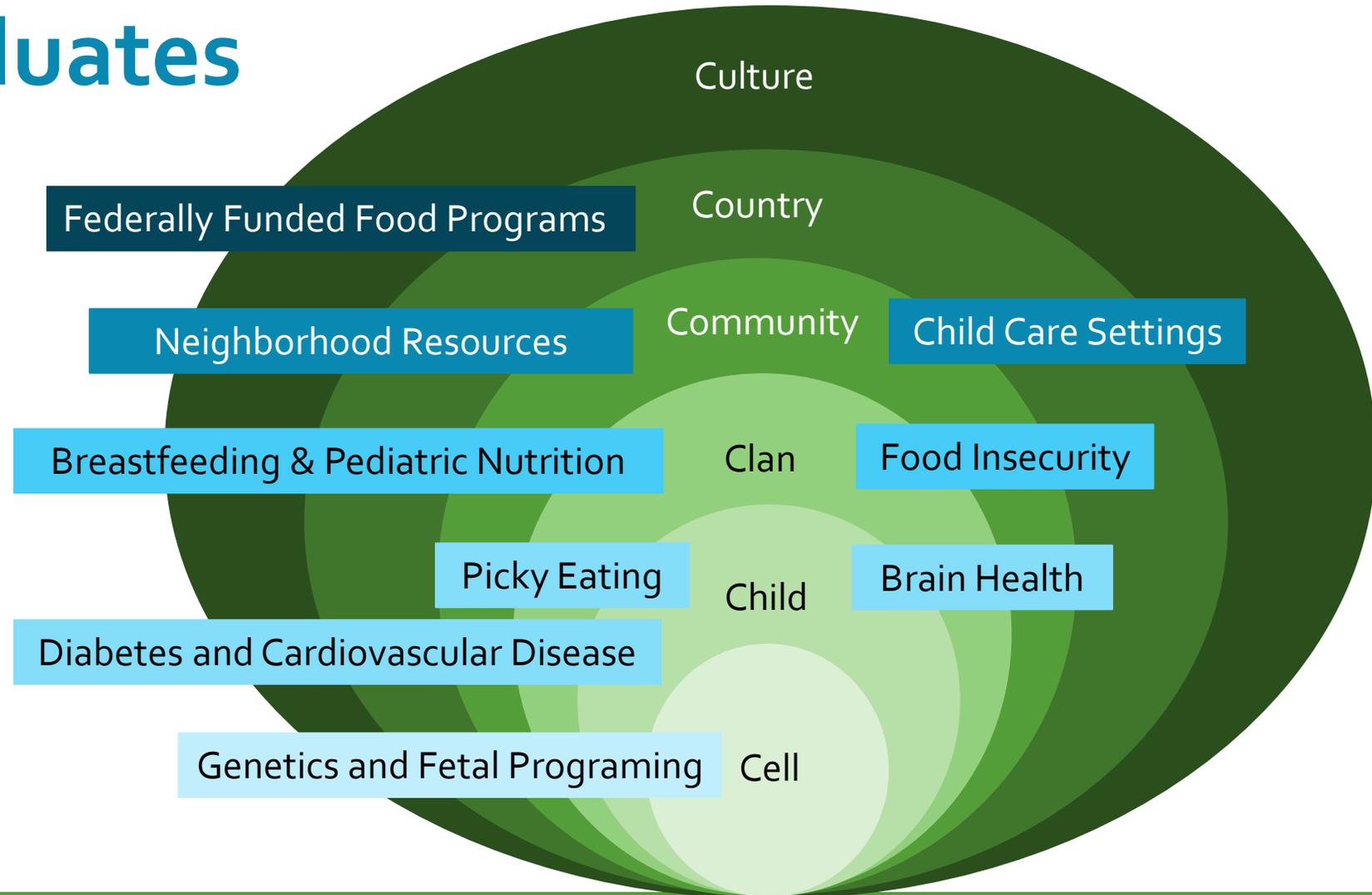
HDFS 494: Transdisciplinary Obesity Prevention Research Sciences for Undergraduates



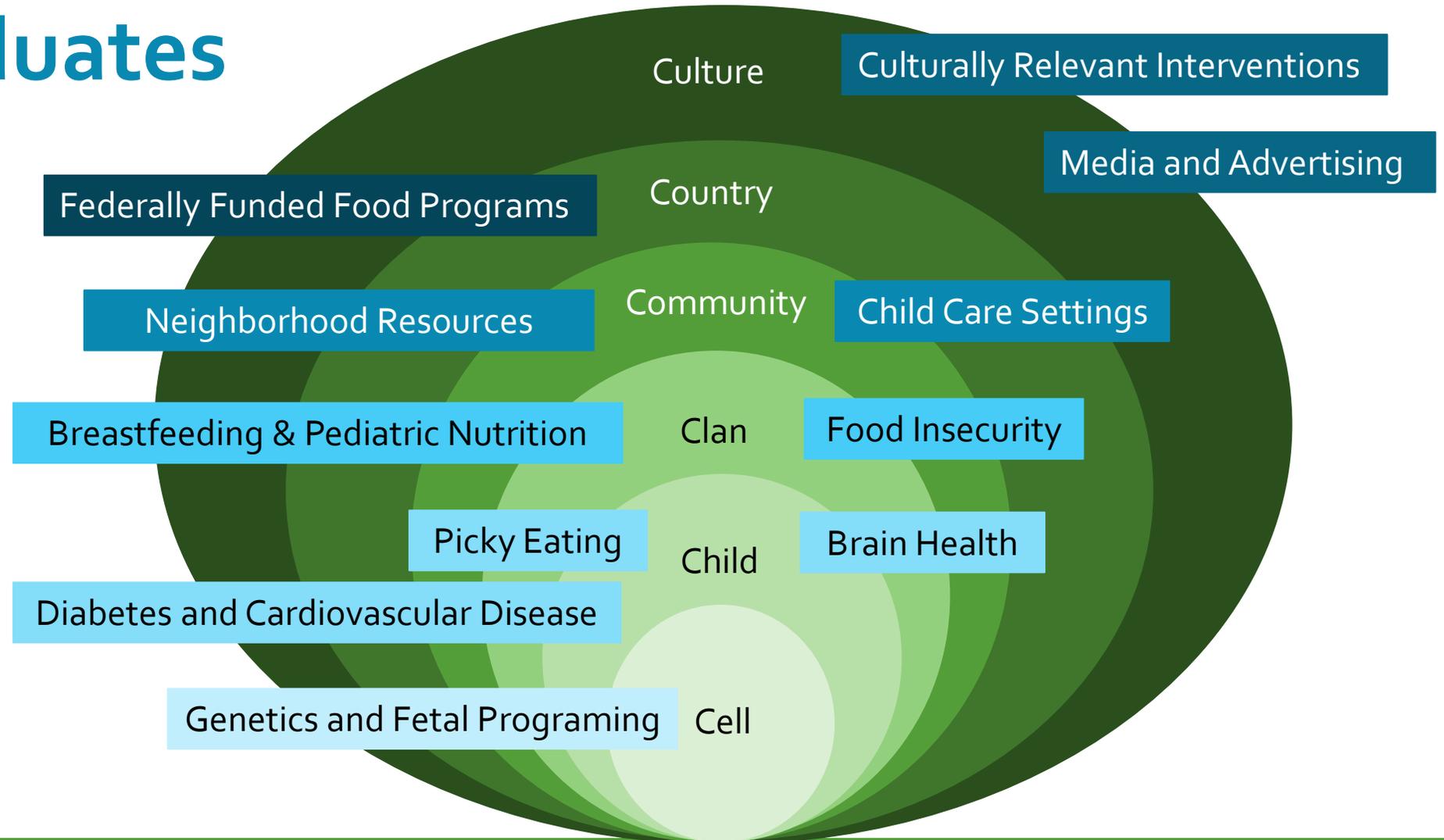
HDFS 494: Transdisciplinary Obesity Prevention Research Sciences for Undergraduates



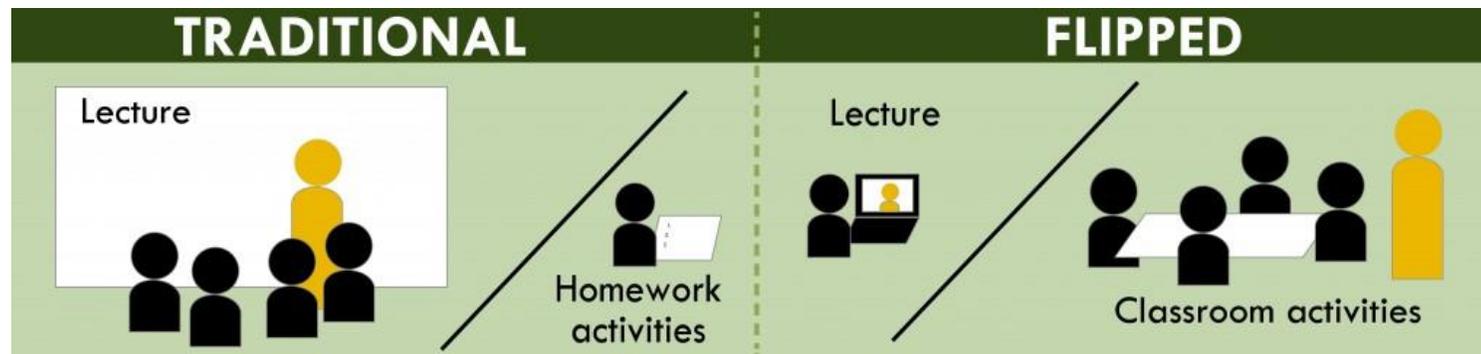
HDFS 494: Transdisciplinary Obesity Prevention Research Sciences for Undergraduates



HDFS 494: Transdisciplinary Obesity Prevention Research Sciences for Undergraduates



Flipped classroom



Professional Development

active listening teamwork social media
email and phone etiquette professional demeanor
data security and back-up procedures
work/life balance professional networks elevator pitch
interviewing informational interviews
presentation skills
giving & receiving positive feedback
translating science for policy and practice
business dinner etiquette resume/vita development

Hands-on research experience

- STRONG Kids
 - Data collection, management and entry
 - Working with participants
- Sprouts
 - Program delivery and evaluation
- Breastfeeding and Childcare
 - Data analysis and report writing
- Feeding Young Children Study
 - Data analysis
 - Program development and evaluation



Mentorship



Sharon Donovan
Professor in
Nutrition and Health



Brent McBride
Professor in Human
Development



Barbara Fiese
Professor in Human
Development and Family Studies



Aaron Ebata
Associate Professor in Human
Development and Family Studies



Jennifer McCaffrey
Assistant Dean, University of
Illinois Extension

- Mentoring team from diverse backgrounds
- Quarterly meetings with mentors
- Audit graduate-level courses in pediatric clinical nutrition and grant writing
- Participate in Center for Innovation in Teaching and Learning workshops

Acknowledgements

- This project was supported by the Agriculture and Food Research Initiative Competitive Grant No. 2015-67012-22822 from the USDA National Institute of Food and Agriculture
- I would also like to thank the child care providers and Head Start teachers who gave of their time to participate in my study.

Katherine E. Speirs
kspeirs@illinois.edu



Family
Resiliency
Center | Strengthening families
for life's challenges.



United States Department of Agriculture
National Institute of Food and Agriculture