

# LET'S EAT ACTIVELY TOGETHER: A Pilot Cooking Intervention for Divorced and Separated Families



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# Obesity in the United States

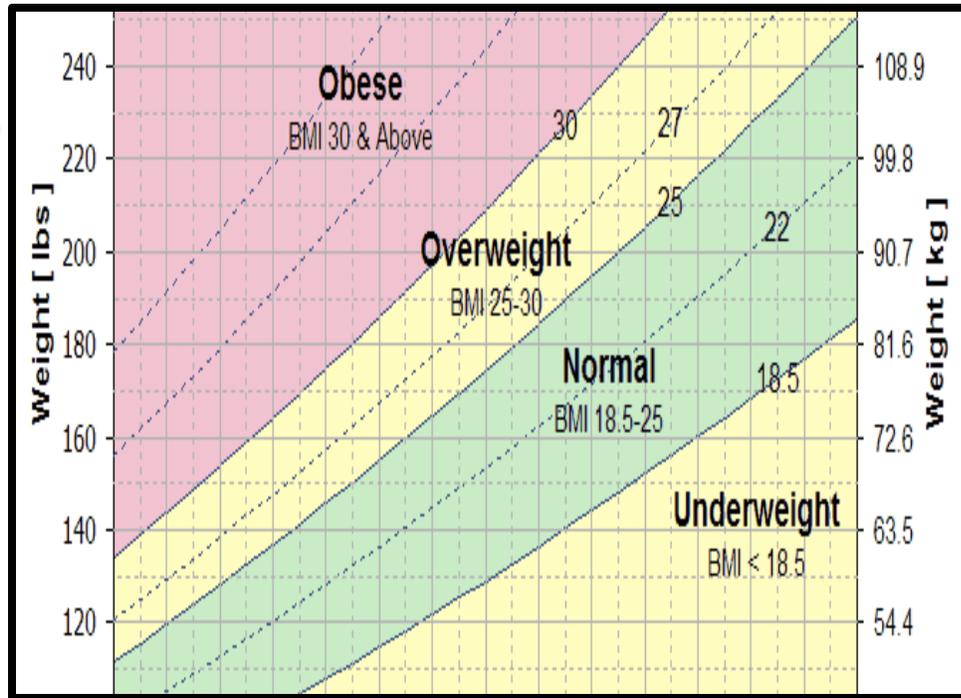
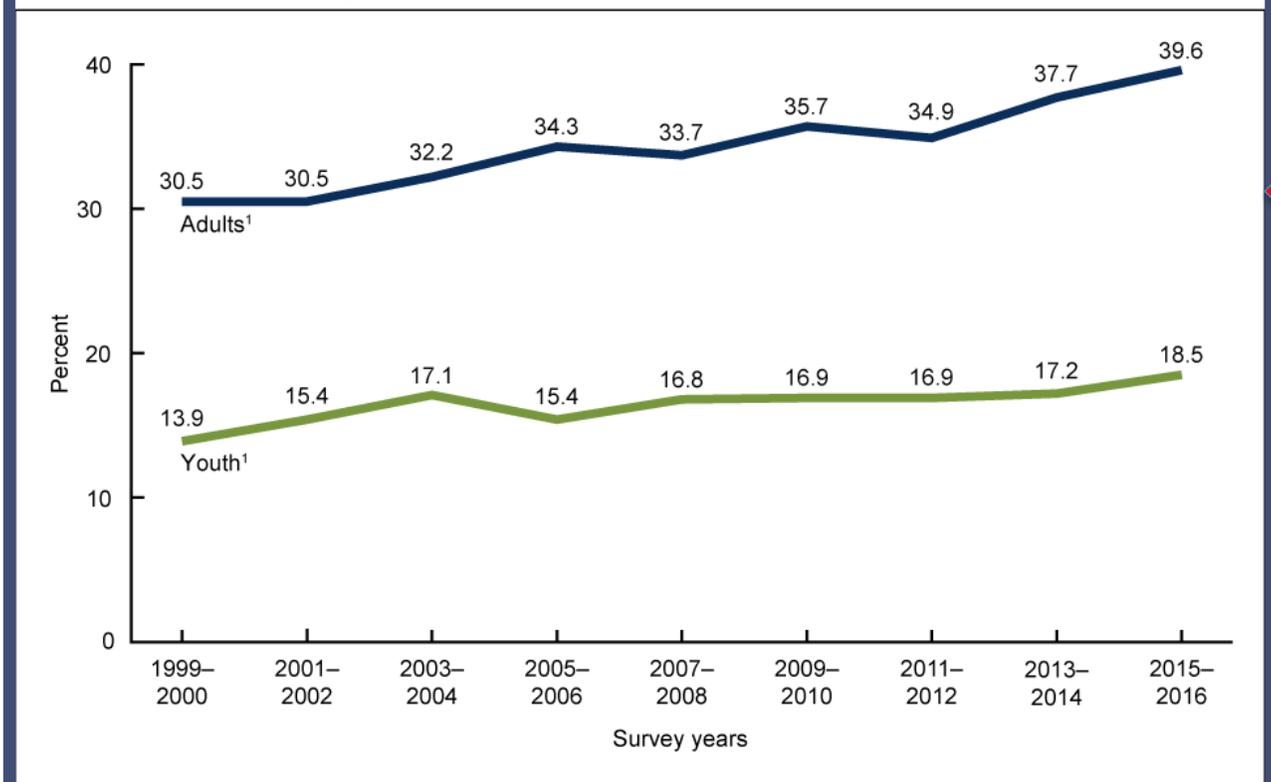


Figure 5. Trends in obesity prevalence among adults aged 20 and over (age adjusted) and youth aged 2–19 years: United States, 1999–2000 through 2015–2016



<sup>1</sup>Significant increasing linear trend from 1999–2000 through 2015–2016.

NOTES: All estimates for adults are age adjusted by the direct method to the 2000 U.S. census population using the age groups 20–39, 40–59, and 60 and over. Access data table for Figure 5 at: [https://www.cdc.gov/nchs/data/databriefs/db288\\_table.pdf#5](https://www.cdc.gov/nchs/data/databriefs/db288_table.pdf#5).

SOURCE: NCHS, National Health and Nutrition Examination Survey, 1999–2016.



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# Introduction

- According to National Health and Nutrition Examination Survey, health differences exist in single-parent homes compared to two-parent homes (Huffman, Kanikireddy, & Patel, 2010)
  - Body mass index percentiles are significantly higher ( $> 25$ )
  - Low density lipoproteins are elevated ( $> 100$  mg/dL)



# Introduction

- More specifically, research has identified relationships with food groups, nutrients, and obesity
  - Increased fruit and vegetable intake in two-parent households (Fiese et al., 2015)
  - Total calories, fat, saturated fat intakes are greater in single parent households
  - Elevated intake of sugar sweetened beverages in single parent homes when family routines explained (Mauskopf, O’Leary, Banhashimini, Weiner, & Cookston, 2015)



# Next steps

- Let's EAT intervention sprouted from this evidence and was developed based on foundational theories of
  - social cognition (Fiese et al., 2002)
  - transaction (Sameroff & Fiese, 2001)
  - person-environment fit (Spagnola & Fiese, 2007)
  - family routines and divorce-stress (Lazarus & Folkman, 1984)



# Next steps



- The purpose of Let's EAT was to
  1. Intervene in family routines common to divorcing families
  2. Reduce the risk for overweight and obesity by focusing on nutritious eating habits and cooking skills within the new family dynamic



# The Program Overview

- Eligibility criteria:
  - Separated or divorced within the past two years
  - A child within the age range of 9-13 years
  - Reside in San Francisco
  - Available for six meetings for continuity
- Obesity and overweight were not required



# Let's EAT Intervention

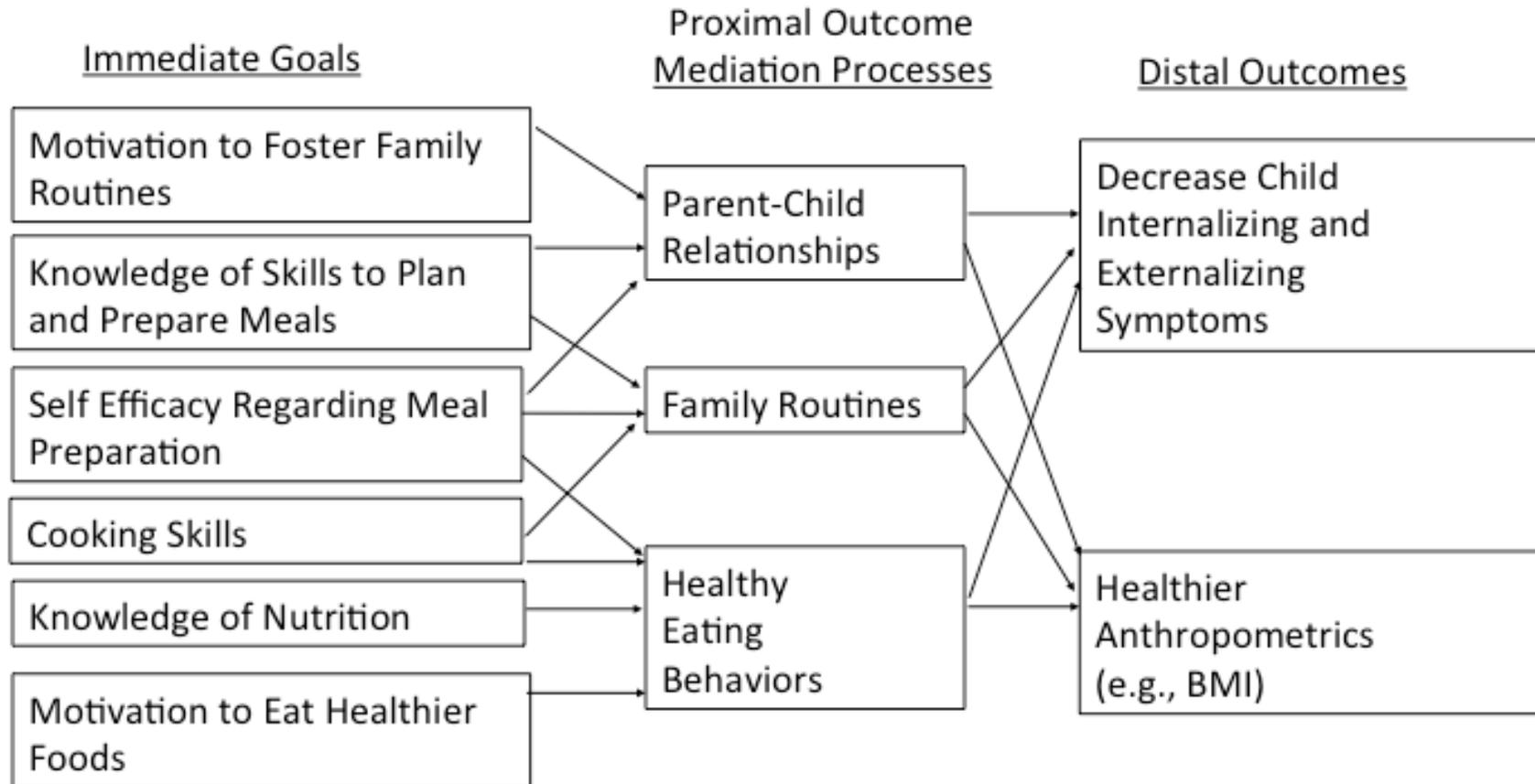


Figure 1. Intervention theory of Let's Eat Actively Together (Let's EAT)

# The Program Recruitment and Start Up

- Parent-child dyads were recruited through local court records
  - Trained graduate and undergraduate students
  - 6 month since petition for dissolution filed
  - Informational letters, telephone recruitment, consent, survey

PROBLEM ENCOUNTERED



# The Program Revamped Recruitment and Start Up

- Parent-child dyads were recruited through local court records
  - Trained graduate and undergraduate students
  - 6 month time period
  - Informational letters, ~~telephone recruitment, consent, survey~~
  - **Online recruitment, online screening, online surveys**

LESSON LEARNED



# Let's EAT Intervention

## Two-hour weekly cooking / discussions for six-weeks

- Teaching parents about (Cookston)
  - Divorce risk
  - Inter-parental conflict
  - Family routines, especially those associated with meal time
- Teaching children about (George)
  - Basic meal planning skills
  - Simple food preparation methods
  - Healthy eating
  - Cleaning as part of family meal time



# Let's EAT Intervention

Table 1. Let's Eat Actively Together Intervention Lesson Outline, Activity, and Evaluation

Week	Welcome to Let's EAT				
	Parent Knowledge	Child Knowledge	Skills	Cooking Activity	Evaluation, Homework
1		MyPlate	Measuring, knife safety, and sanitation	Fruit parfait in a jar	Pre-study FFQ, Parent-child survey
2	Family meal meets MyPlate		Planning the pantry, roasting and one-pot meals	Roasted vegetable stew	
3	Snacking sensibly for the entire family		Baking and sautéing	Egg vegetable frittata	
4		Eating away from the family, eating for one	Stir fry, tasty sauces	Chicken (tofu) vegetable stir fry	
5		Eating your fresh vegetables and liking it	Salad, salad dressing, quick bread	Salad with homemade dressing, whole wheat muffin	
6	Summary	Summary	Eating together and enjoying it	Shared recipes	Post-study Block FFQ, Parent-child survey



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# Let's EAT Intervention

## Lesson 1

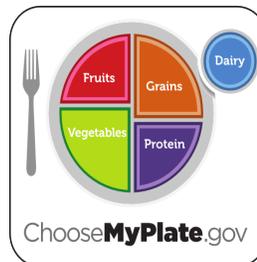
### Changes in families associated with divorce

1. Conflict between parents
2. Changes in parenting behaviors
3. More parent anxiety, depression
4. Access to the noncustodial parent
5. Changes in family routines



Why might marital dissolution associated with adult obesity?

1. Children might begin to cope with the divorce by eating (e.g., sugar drinks)
2. Different foods may be available at different homes.
3. More fast food.



# Let's EAT Intervention

**Table of contents**

Welcome to Let's EAT ..... 1

Week 1 ..... 2

    Knowledge: MyPlate

    Skills: Measuring, knife safety and sanitation

    Cooking: Fruit parfait in a jar

Week 2 ..... 3

    Knowledge: Family meal meets MyPlate

    Skills: Planning the pantry, roasting and one-pot meals

    Cooking: Roasted vegetable stew

Week 3 ..... 4

    Knowledge: Snacking sensibly for the entire family

    Skills: Baking and sautéing

    Cooking: Egg vegetable frittata

Week 4 ..... 5

    Knowledge: Eating away from the family, eating for one

    Skills: ~~drinking~~, tasty sauces

    Cooking: "Grilled" chicken (or tofu) vegetable ~~salad~~

Week 5 ..... 6

    Knowledge: Eating your fresh vegetables and liking it

    Skills: salad, salad dressing, quick bread

    Cooking: Simple salad with homemade dressing and whole wheat muffins

Week 6 ..... 7

    Knowledge: Summary

    Skills: Eating together as a family and enjoying it

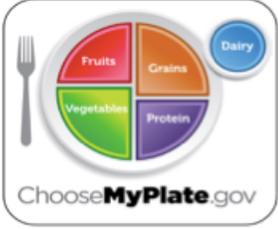
    Cooking: Various recipes




**LESSON 1**

Sample food groups throughout the day on 2,000-calorie diet

	Breakfast	Lunch	Snack	Dinner
<b>Fruits (2 cups)</b>	¾ cup	1 cup	¾ cup dried fruit	
<b>Vegetables (2.5 cups)</b>		1 cup		1 cup cooked, 2 cup leafy green
<b>Grains (6 ounce)</b>	2 ounce ready-to-eat cereal	2 slices bread		1 cup cooked rice
<b>Protein (2.5 ounce)</b>	1 egg	2 tbsp. peanut butter	¾ ounce nuts	¾ cup cooked beans or 2 ounce lean meat
<b>Dairy (3 cups)</b>	1 cup milk		1 cup yogurt	1 cup milk
<b>Limiting foods</b>	1 tsp. oil	1 tbsp. jelly		1 tsp. oil



ChooseMyPlate.gov



**LESSON 1 Portion size examples**

Fruits & Veggies	7-10 servings per day	Grain Products	5-7 servings per day
	1 fruit or veggie		½/2 cup of pasta or cereal
	½/2 cup canned fruit		1 slice of whole wheat bread
	1 cup of salad		½ cup whole wheat flakes
Meat & Protein	2-3 servings per day	Milk & Dairy	2-3 servings per day
	1 chicken breast		¾ cup of yogurt
	2 small eggs or 1 large egg		1 ounce of cheese
	½/2 cup cooked beans		1 cup of milk
Fats & Oils	2-3 tablespoons per day		
	1 tsp soft margarine		
	2 tbsp peanut butter		



**Knife Safety**

**Chef's Knife**

- Largest knife in the kitchen.
- Usually 8-10" long
- Should feel comfortable and balanced in your hand.
- Select a chef's knife with a full tang, meaning that the blade should go completely through the handle to promote long wear and stability.
- Use the chef's knife to cut any food that would be chopped or minced or needing a cutting board including herbs, slicing watermelon, cutting all types of fruits and veggies and more!

**The Three Essential Kitchen Knives**

- Chef's knife
- Paring knife
- Serrated bread knife

**Serrated Bread Knife**

- Must be very sharp to slice bread.
- Blade must be at least 7" long, but preferably 9" to adequately slice bread – the longer the blade, the cleaner the slice.
- Serrated knife allows bread to be sliced easily.
- Bread knives can also be effective for cutting tomatoes.

**Paring Knife**

- Small blade – 2 ½ - 4" long
- Mainly used for peeling fruits and vegetables
- Also used to create garnishes

**Cutting Tips**

- Always cut slowly and with care.
- Cut away from the body.
- Make sure to cut with dry hands to prevent slippage
- Keep distractions out of the kitchen when you are chopping.
- Pay attention as you chop to prevent injury.
- Any time you are chopping fruits and vegetables, chop in half first to create a flat surface. This will give you better control so the food won't roll under the knife.

**Safety Tips**

- Always use the correct knife for the task.
- Never use a knife to perform inappropriate tasks, such as opening a can or bottle. Doing so could damage the knife and injure you.
- Always use a sharp knife. More accidents happen when using a dull knife because it may require more force.

**LESSON 1 RECIPE**

**FRUIT PARFAIT IN A JAR**

Time: 5 minutes  
Serves 2

**Ingredients needed**

- 2-8 ounce mason jar
- Fruit
  - ¼ cup blueberries
  - 1 medium peach
  - 1 kiwi
  - ½ cup strawberries
- Grain
  - 2-4 cups low-fat granola
- Dairy
  - 1 cups low-fat Greek yogurt
- Protein
  - 2 tbsp. almonds
  - 2 tbsp. chia seeds
- Vegetable

**Directions:**

1. Measure out all ingredients for two parfaits.
2. Slice, using the "claw" method, peach, kiwi, mango, and strawberries into ¼ inch slices.
3. Mince almonds using the "claw" method.
- 5 Layer all ingredients with fruit, grain, yogurt, protein, fruit grain, and yogurt protein. You can enjoy now or put the lid on for later.





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Skills: ~~Grilling~~, tasty sauces  
Cooking: "Grilled" chicken (or tofu) vegetable ~~salad~~

**Week 5** .....6

Knowledge: Eating your fresh vegetables and liking it  
Skills: salad, salad dressing, quick bread  
Cooking: Simple salad with homemade dressing and whole wheat muffin

**Week 6** .....7

Knowledge: Summary  
Skills: Eating together as a family and enjoying it  
Cooking: Various recipes



# Outcomes and Implications

- Pre- and post- evaluation
  - Family Routines Inventory, Child Report of Parenting Behavior Inventory, self-reported height and weight, nutrition knowledge/skills, Block FFQ
- Intervention engagement and satisfaction midpoint
- Pilot case study of 3 parents and 4 children, thus n=3 families
  - Statistical significance not possible



# Outcomes and Implications

- Immediate program outcomes targeted (n = 7 individuals)
  - motivation to foster family routines and healthy eating habits (100%)
  - knowledge of skills to plan and prepare meals (86%)
  - self-efficacy regarding meal preparation (86%)
  - improved nutritional knowledge (100%)

LESSON LEARNED



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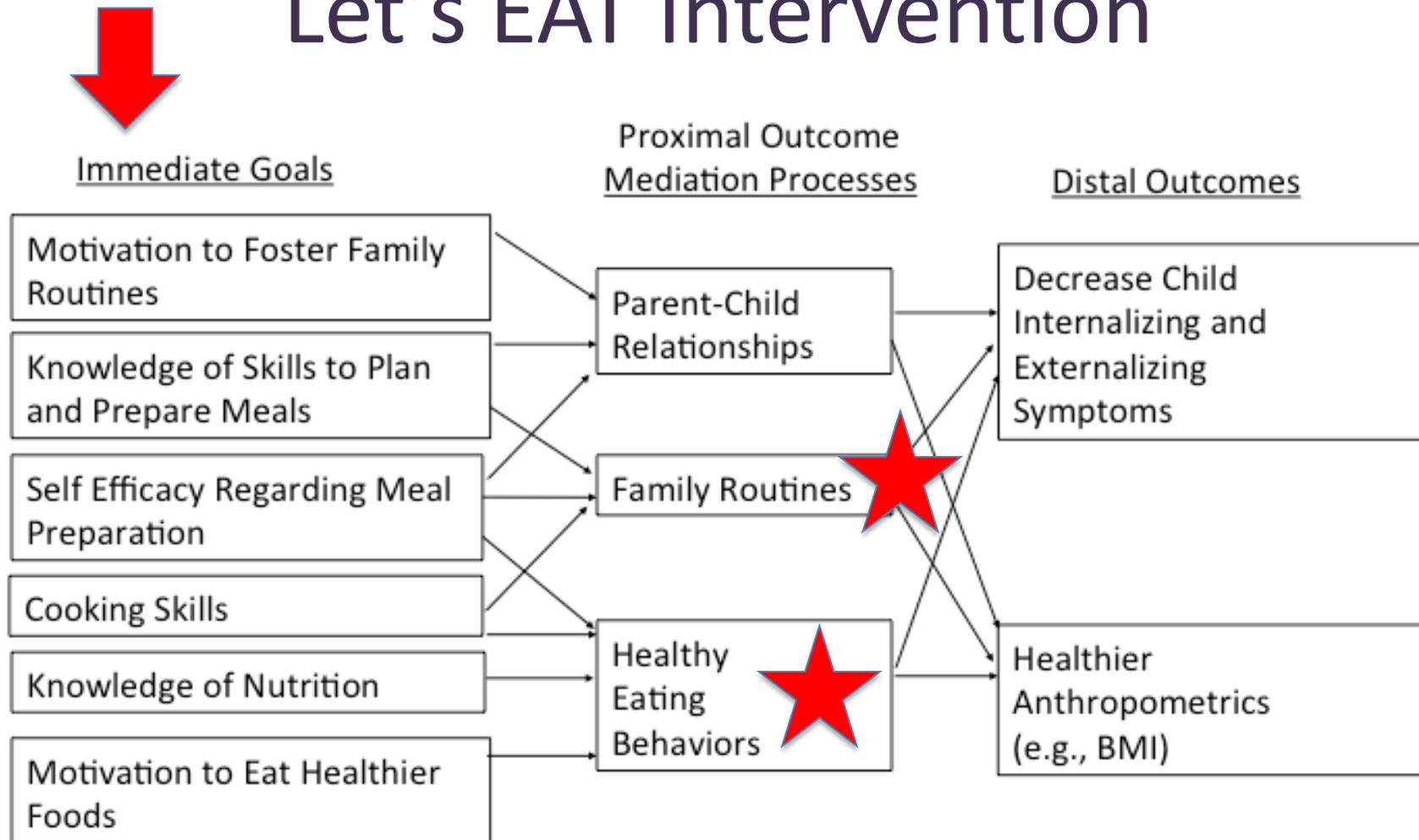
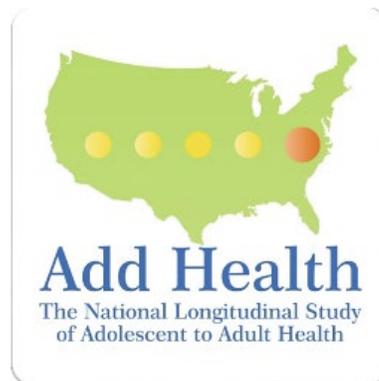


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# Next steps for our team

- Secondary data analysis of **Add Health** to provide more insight and allow for joint publication/grants
- Future plans to host this study with a larger sample will provide statistical power to support the hypothesized outcomes



# Outcomes and Implications for FCS Educators and Researchers

- Lessons learned by us but important for all FCS professionals
  - Involve the internet for efficacy and ease
  - Teaching children motor skills while teaching parents psychosocial skills may be of value
  - Multi-disciplinary “stealth” interventions may be engaging and effective

LESSONS LEARNED



Thank You. **QUESTIONS?**

**LET'S EAT ACTIVELY TOGETHER:**  
**A Pilot Cooking Intervention for**  
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