

# Empowering Families in the Struggle against Childhood Obesity

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**UAB MEDICINE**  

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**PEDIATRICS**



**Children's  
of Alabama**

# Objectives

- **At the end of this presentation, participants should be able to:**
  - **Understand the issues within family that affect the incidence of childhood obesity.**
  - **Learn workable solutions and community resources to help families overcome these issues that for positive lifestyle outcomes.**

# I Wear 2 Hats...

## Adolescent Health

- Largely primary care
- 6 physicians, 1 RD
- 11-21 years old
- Metro Birmingham

## Childhood Obesity

- Multidisciplinary clinic
- MD, PhD, RD, PT, SW
- 2-20 years old
- Referrals across the state
- All patients BMI >99<sup>th</sup> percentile or comorbidities

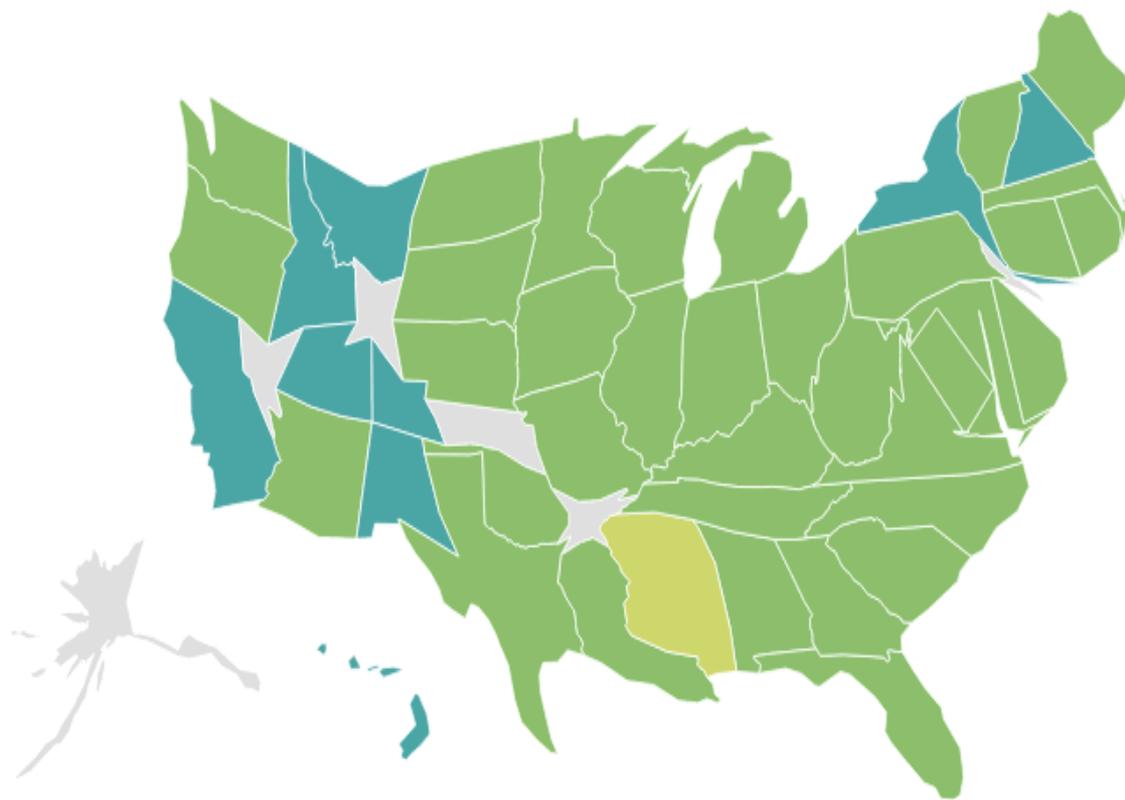


# Outline

- **Why are families important?**
- **Lifestyle change within families**
- **Families: Who is ready?**
- **How to guide families through making changes?**

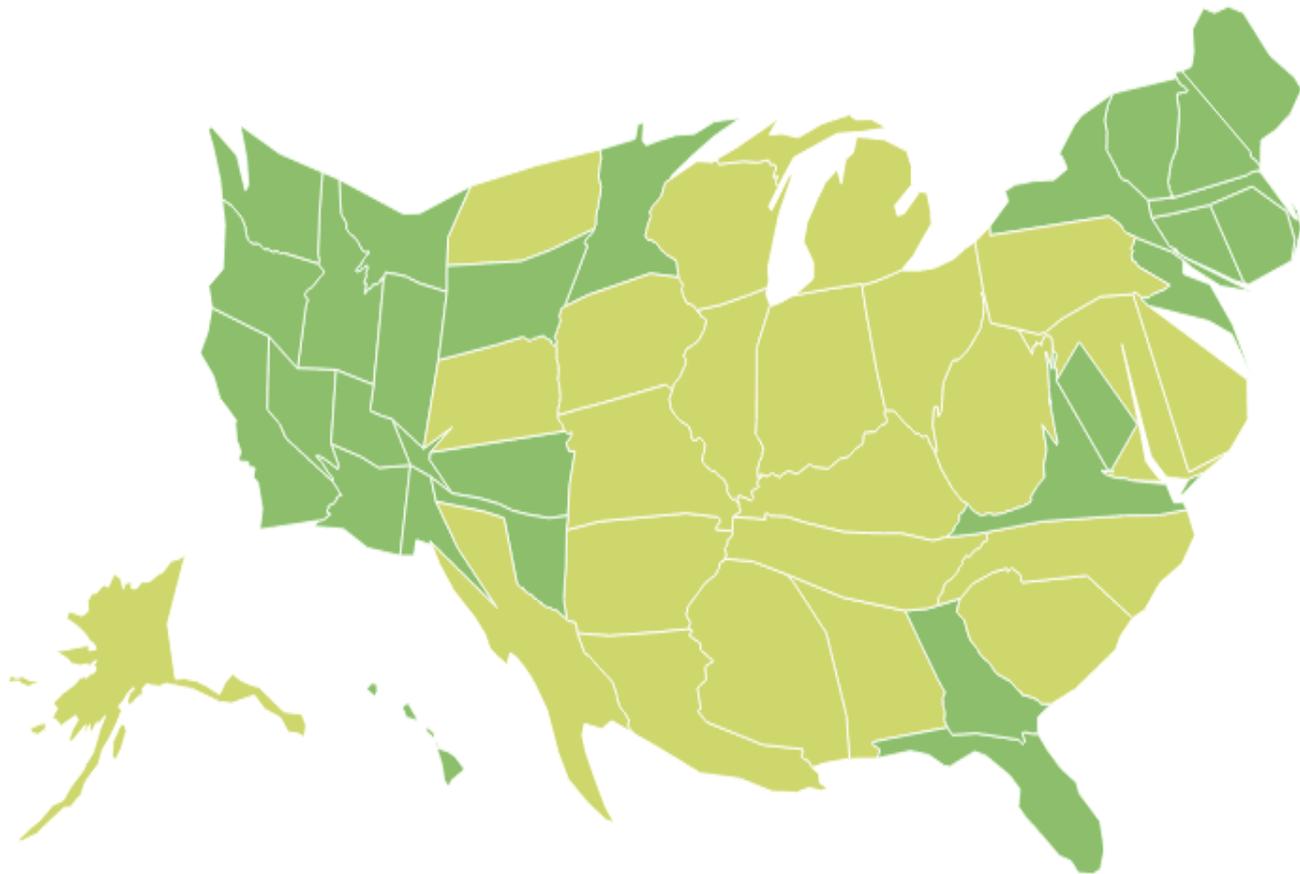
The background features a smooth green gradient that transitions from a lighter shade at the top to a darker shade at the bottom. Scattered across this gradient are numerous white butterfly silhouettes of various sizes and orientations, creating a decorative and naturalistic feel.

# US Obesity



1990 1995 2000 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012

Fat as in F. 2013.



1995

2000

2003

2004

2005

2006

2007

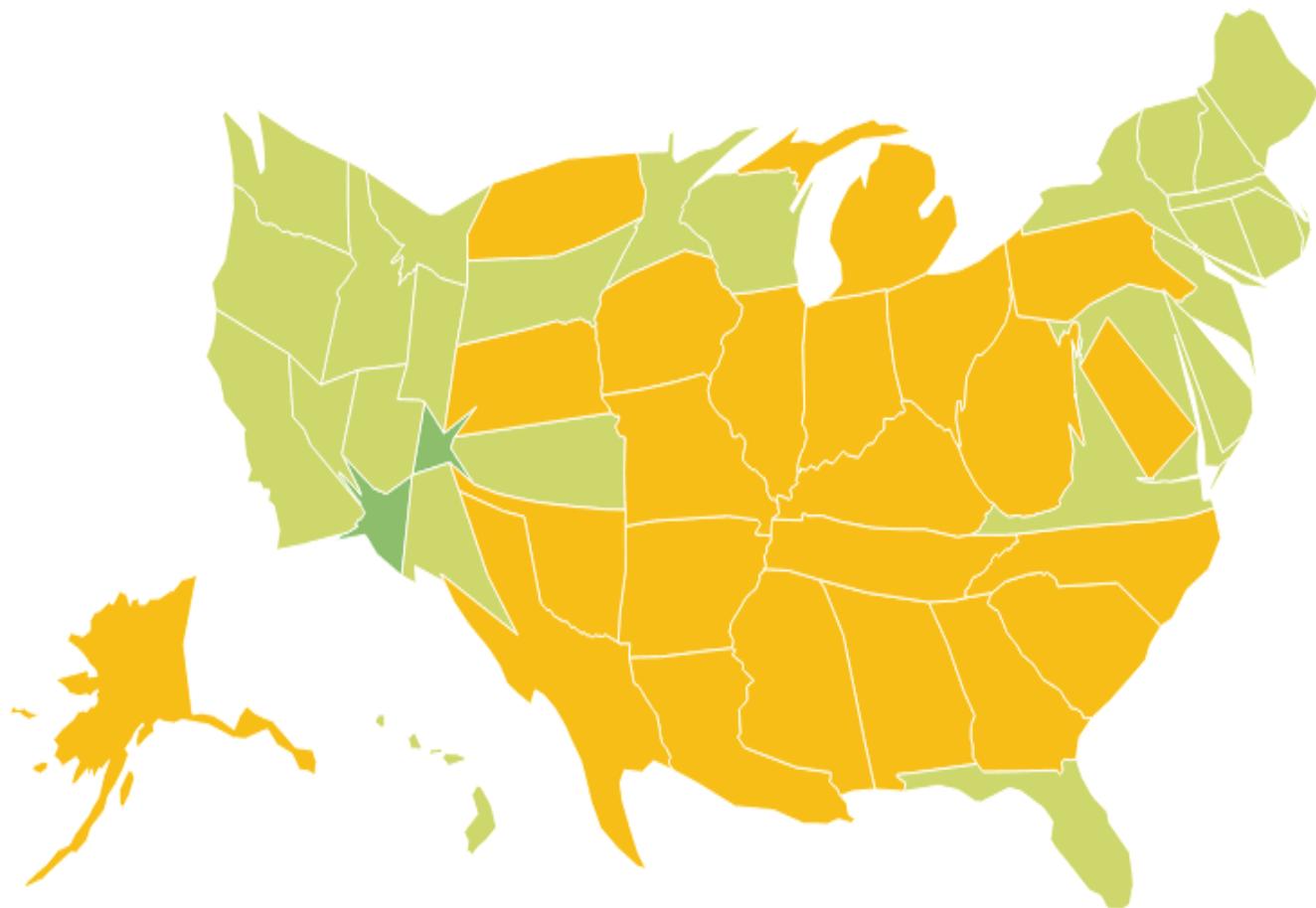
2008

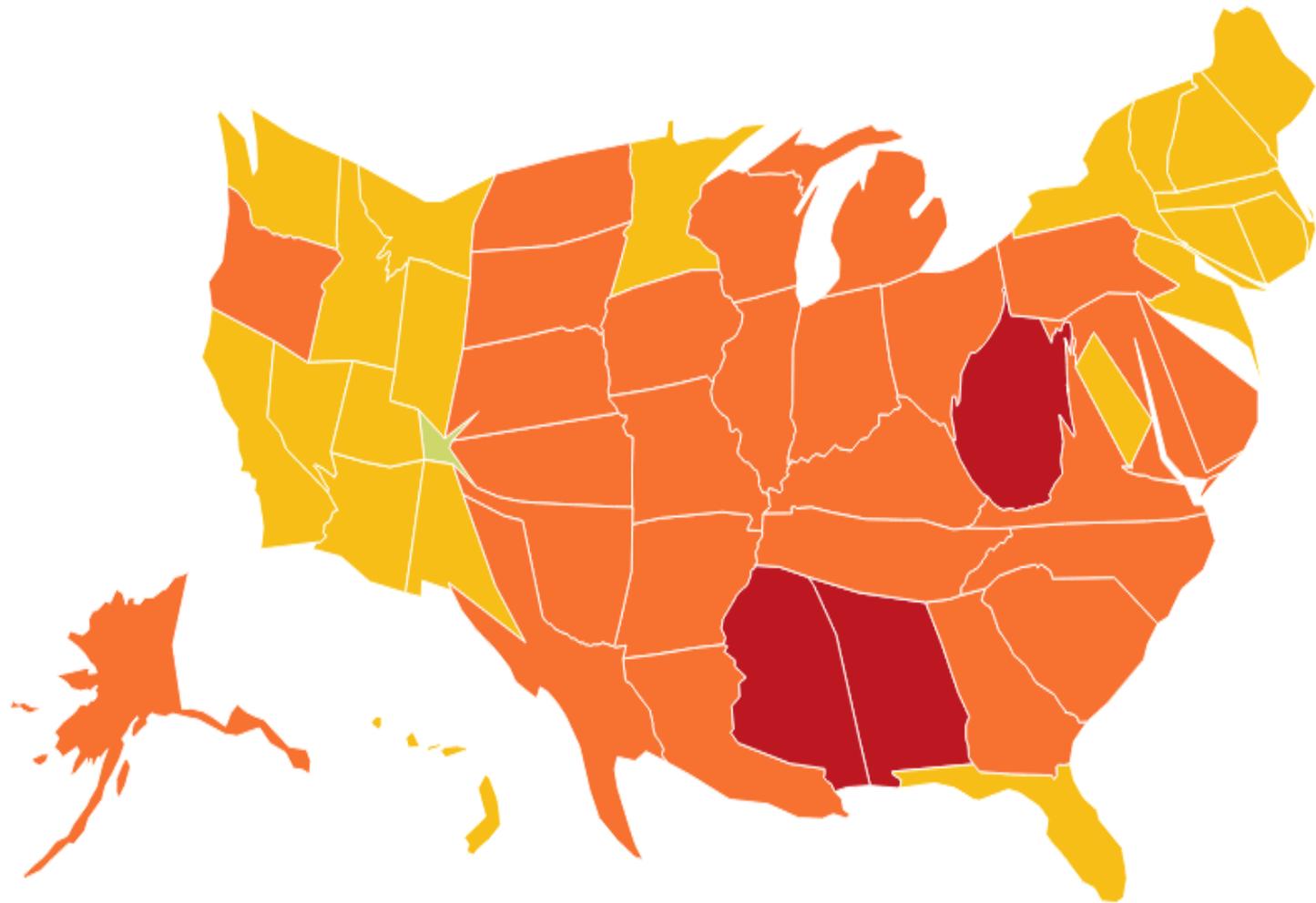
2009

2010

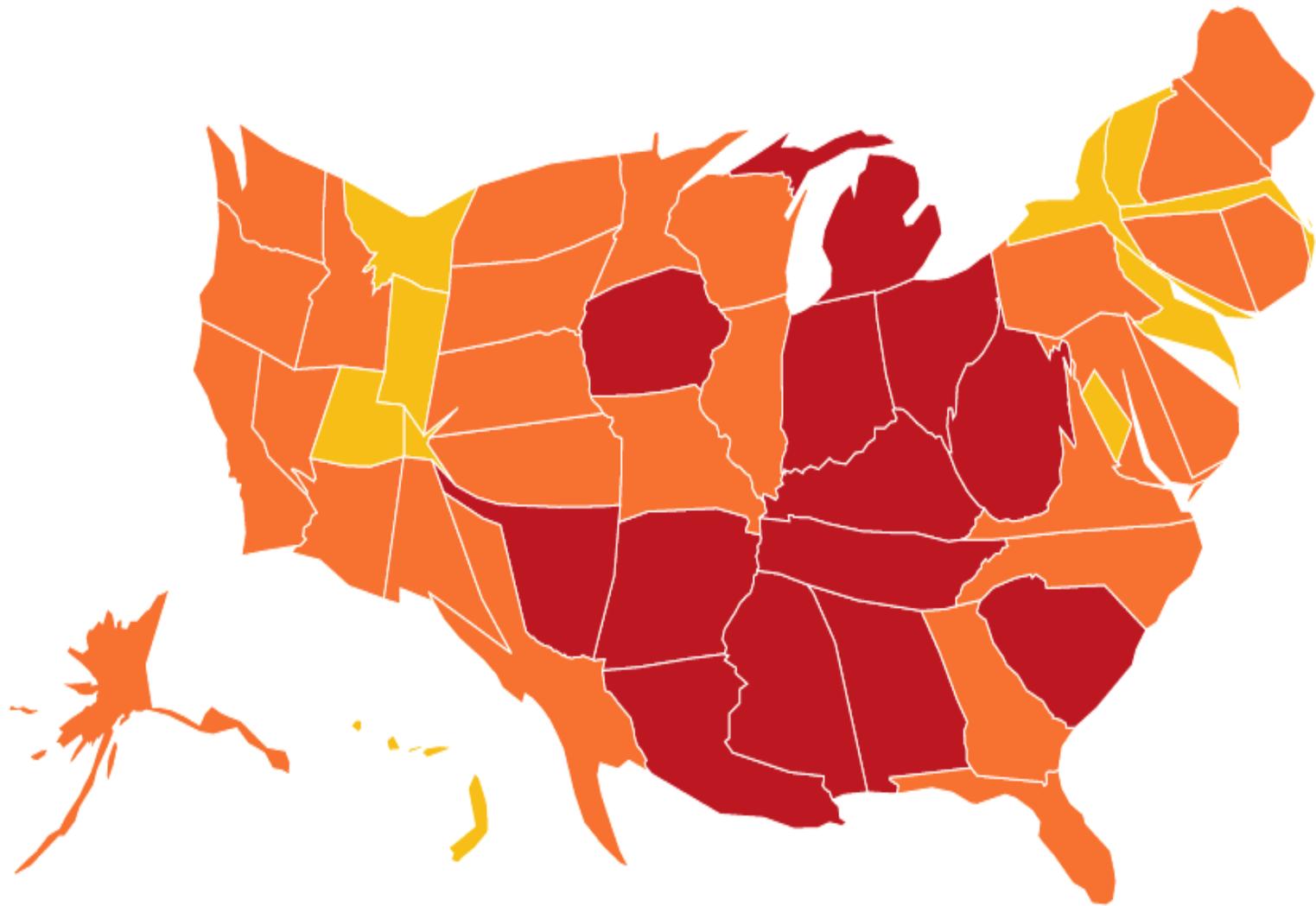
2011

2012





1990 — 1995 — 2000 — 2003 — 2004 — 2005 — 2006 — **2007** — 2008 — 2009 — 2010 — 2011 — 2012

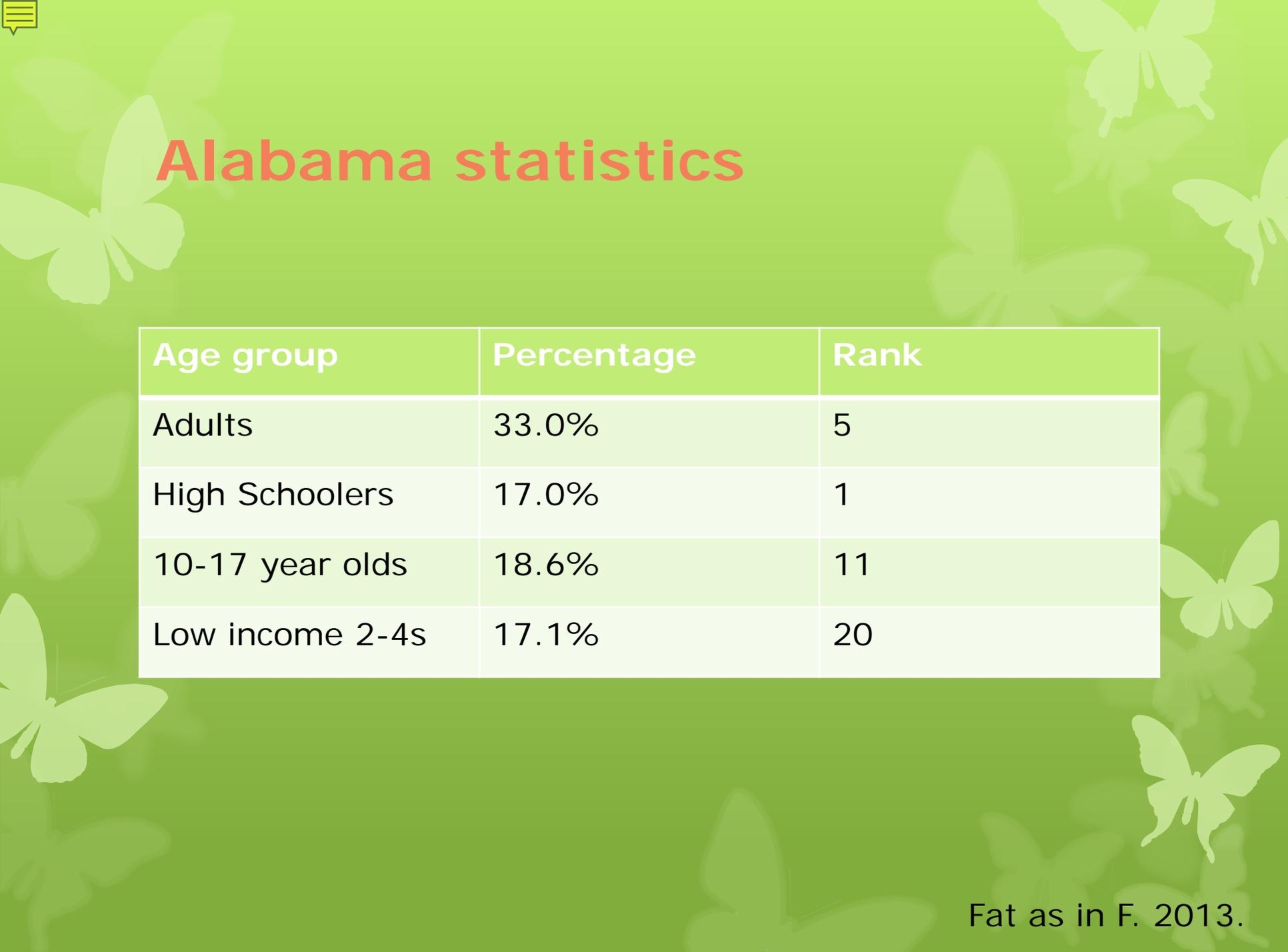


1990 — 1995 — 2000 — 2003 — 2004 — 2005 — 2006 — 2007 — 2008 — 2009 — 2010 — 2011 — **2012**

Fat as in F. 2013.

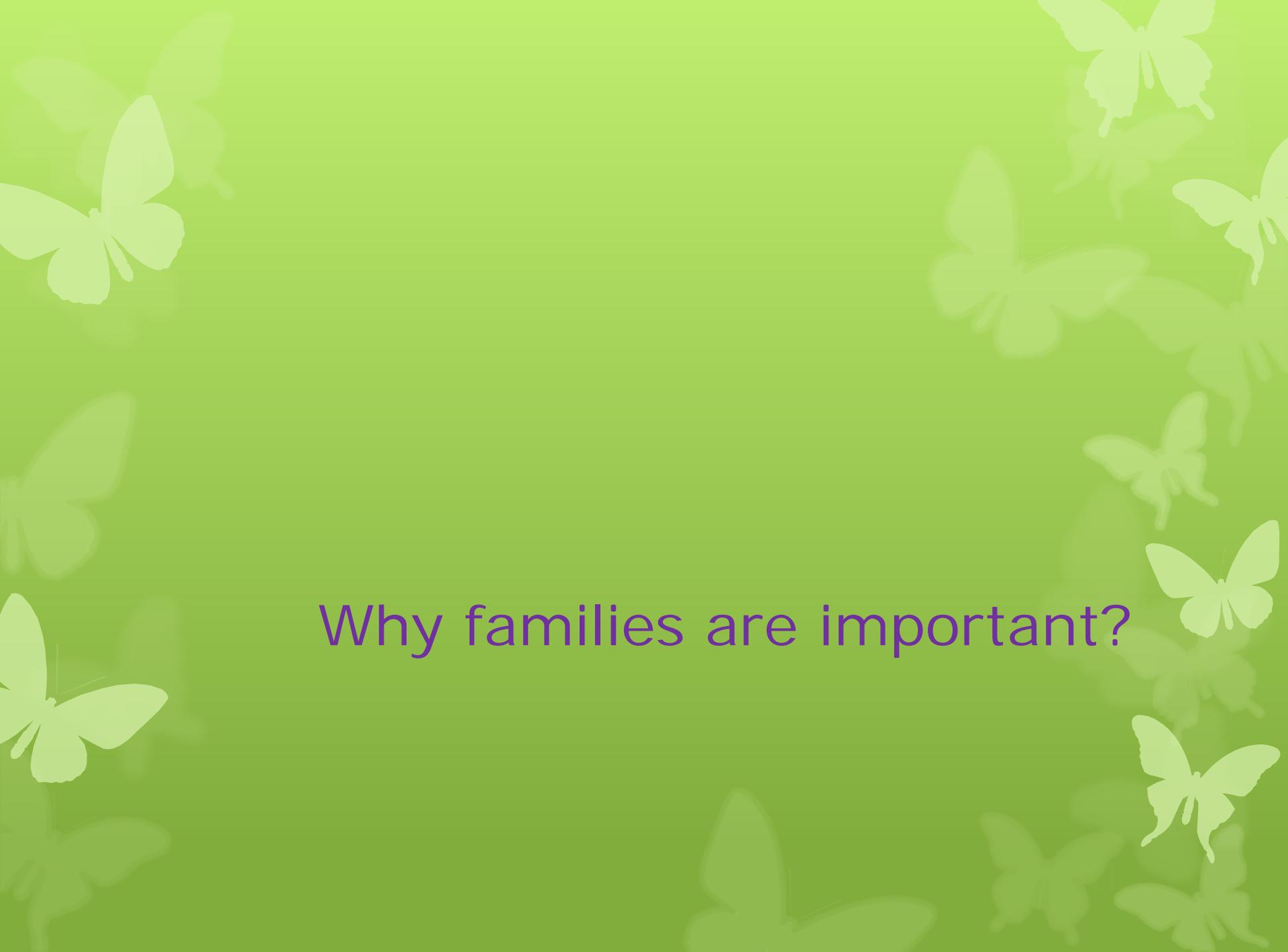
# U.S. pediatric statistics

<b>Age (years)</b>	<b>Obesity Prevalence (%)</b>
<b>2-5</b>	<b>12.1</b>
<b>6-11</b>	<b>18.0</b>
<b>12-19</b>	<b>18.4</b>

The slide has a light green background with several white butterfly silhouettes scattered across it. In the top left corner, there is a small white icon of a speech bubble with three horizontal lines inside. The title 'Alabama statistics' is written in a bold, red, sans-serif font. Below the title is a table with three columns: 'Age group', 'Percentage', and 'Rank'. The table has four rows of data. The text 'Fat as in F. 2013.' is located in the bottom right corner of the slide.

# Alabama statistics

Age group	Percentage	Rank
Adults	33.0%	5
High Schoolers	17.0%	1
10-17 year olds	18.6%	11
Low income 2-4s	17.1%	20



Why families are important?

# Families

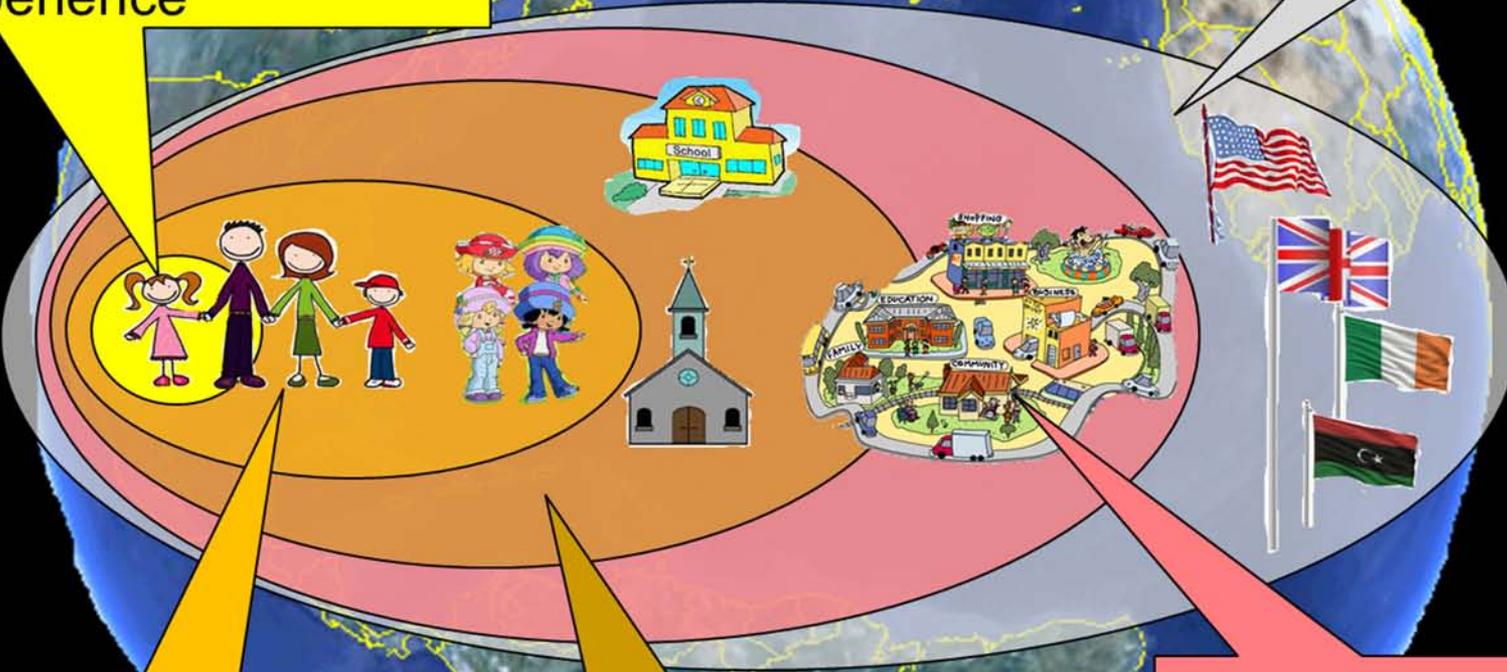
- A family is a group of individuals who live together and who are related **biologically, legally, or socially**. (e.g., an unmarried partner of a parent).
- *“Family” is defined as a social unit that provides care, guidance, learning, values, and protection for a child.*
  - Parent or adult caregivers (PAC)



# A Social-Ecological Model

**Individual:** genotype, knowledge, beliefs, experience

**Policies, Laws, Other Cultures**



**Interpersonal:** Family, friends, social network

**Organizational:** School, church, etc.

**Community:** Local culture, natural & built environment

**Expert Committee Recommendations Regarding the Prevention, Assessment,  
and Treatment of Child and Adolescent Overweight and Obesity: Summary  
Report**

Sarah E. Barlow and the Expert Committee  
*Pediatrics* 2007;120;S164-S192  
DOI: 10.1542/peds.2007-2329C

- **Assessment**
- **Prevention**
- **Prevention Plus**
- **Structured Weight Management**
- **Comprehensive Multidisciplinary Protocol**
- **Tertiary Care Protocol**

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- Assessment
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# Stage 1: Prevention Plus

- Everyone starts here
- **Lifestyle changes:** Diet + Physical Activity
- Lifestyle/behavioral recommendations
- *Jointly* set the agenda
- Small changes, *specific*, lifestyle targets for changes
  - Motivational Interviewing
- **Setting:** Primary Care

*If no improvement after 3-6 mo, advance to next stage*

## Stage 2: structured weight management

- Stage 1 rec's + more structure & support
- Individual or group follow-up
  - visits with a dietitian, exercise therapist or counselor
- ↑ monitoring (pt/family, provider), goal setting and rewards
- Frequency: monthly or individualized per family needs, risk factors
- **Setting:** Primary care, schools or community

*"If no improvement after 3-6 mo, pt should advance to next stage"*

# Why are families important?

- Children cannot be helped in isolation without considering the family context.
- The family is the primary source of many health beliefs and behaviors that affect the child.



# Families: the research

- **80% of obese 10-14yo will remain obese if they have one obese parent.** (Whitaker, 1997)
- **The child has twice the risk of adult obesity if one parent is obese.** (Whitaker, 1997)
- **Parents who consume more vegetables have children who consume more vegetables.** (Fisher, 2002)
- **When parents are more physical active, children are more active.** (Holm, 2012)



The background is a solid green gradient, lighter at the top and darker at the bottom. Scattered throughout are numerous white butterfly silhouettes of various sizes and orientations, some appearing as if they are flying.

# **Lifestyle change within families**

# Are family changes effective?

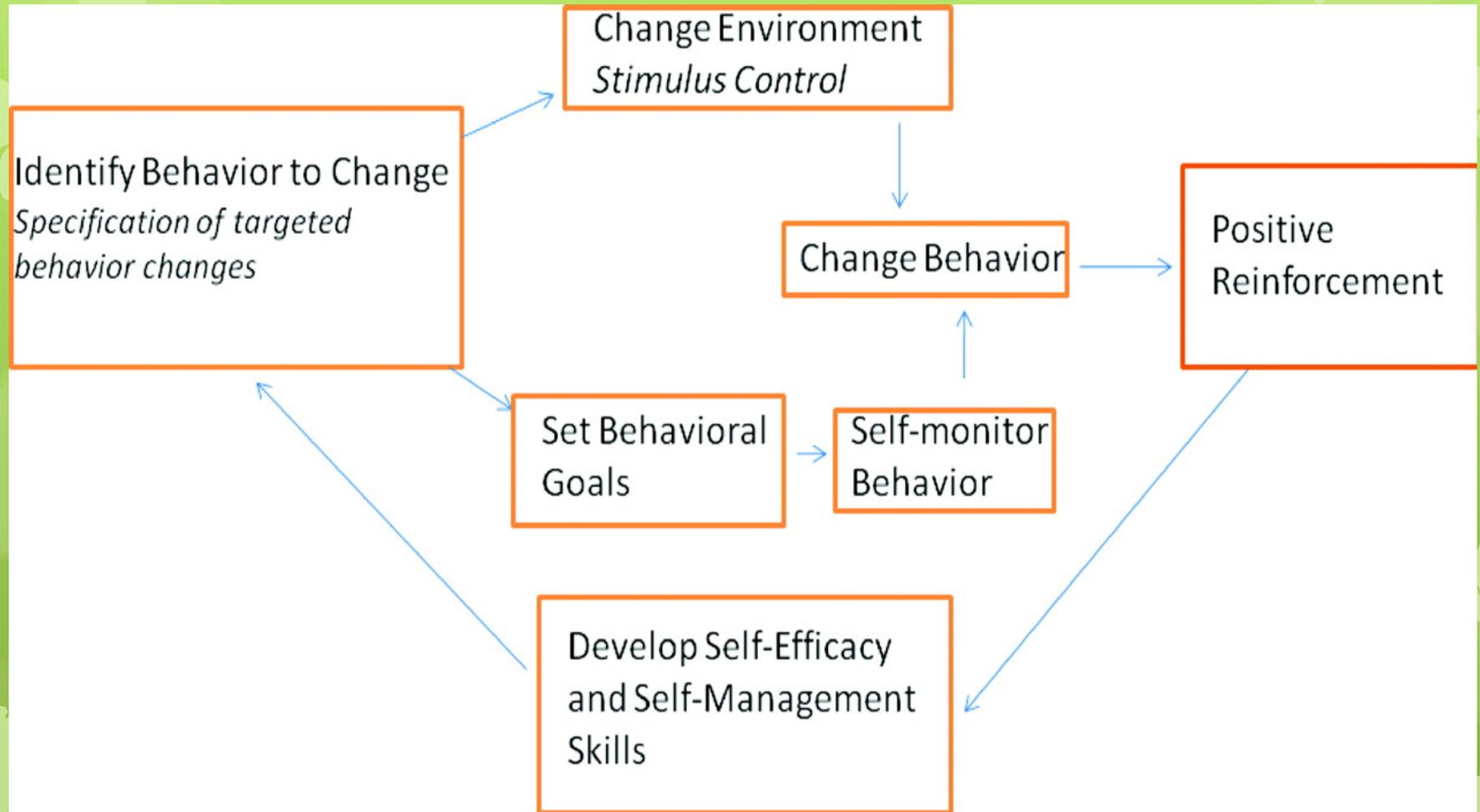
- **McGovern et. al(2008)**

- Interventions with the family and child had greater weight loss for obese children than intervention aimed at the child alone.

- **Faith, et.al (2012)**

- Solely looked at the involvement of adult caregivers
- Mixed reviews
- Better results at long term follow up

**Core strategies for changing behavior in family-based interventions for pediatric obesity that include parent and adult caregivers.**

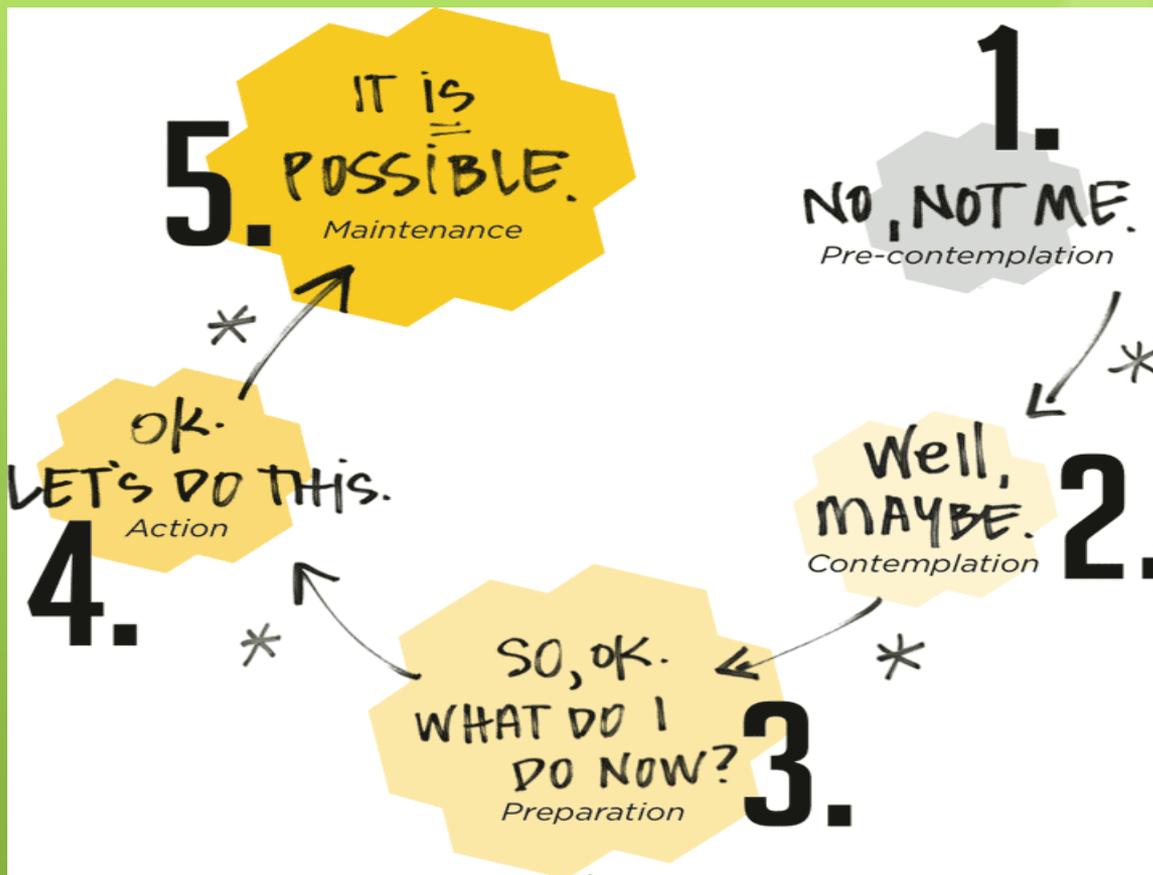


Families: Who is ready?

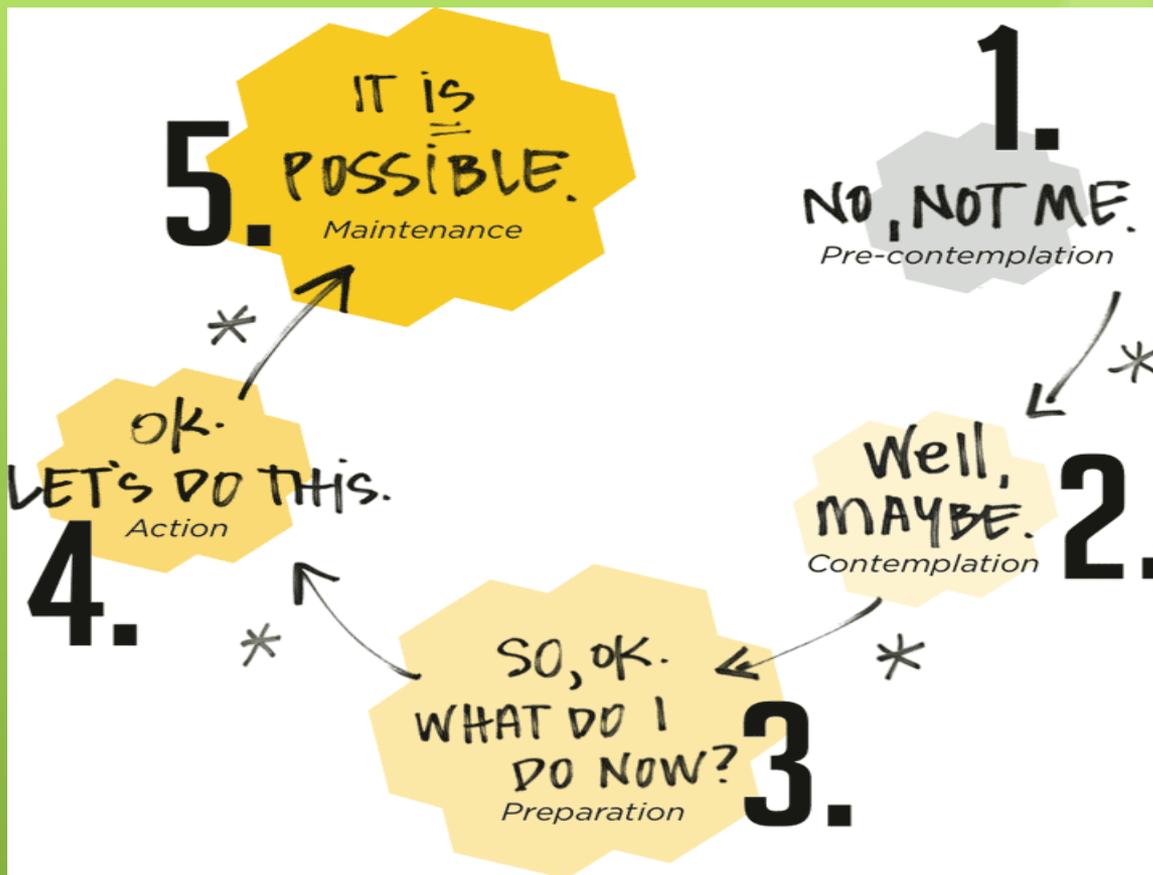
# Readiness to Change

State	Instructional strategies
<b>Precontemplation</b> No intention of taking action in the next 6 months	<ul style="list-style-type: none"><li>• Engage the individual with information about need for change</li><li>• Provide personalized information about risks if no change and benefits of change</li></ul>
<b>Contemplation</b> Intends to take action in the next 6 months	<ul style="list-style-type: none"><li>• Motivate and encourage the individual to set goals and make specific plans</li></ul>
<b>Preparation</b> Intends to take action in the next month and has taken some steps to change behavior	<ul style="list-style-type: none"><li>• Help the individual create and implement specific action plans and set realistic goals</li></ul>
<b>Action</b> Has changed behavior for <6 months	<ul style="list-style-type: none"><li>• Provide problem-based (action-oriented) learning experiences</li><li>• Provide social support, feedback</li></ul>
<b>Maintenance</b> Has changed behavior for >6 months	<ul style="list-style-type: none"><li>• Continue to provide social support, assist with problem-solving, positively address slips and relapses if necessary</li><li>• Employ reminder systems/performance support tools</li></ul>

# Scenario #1



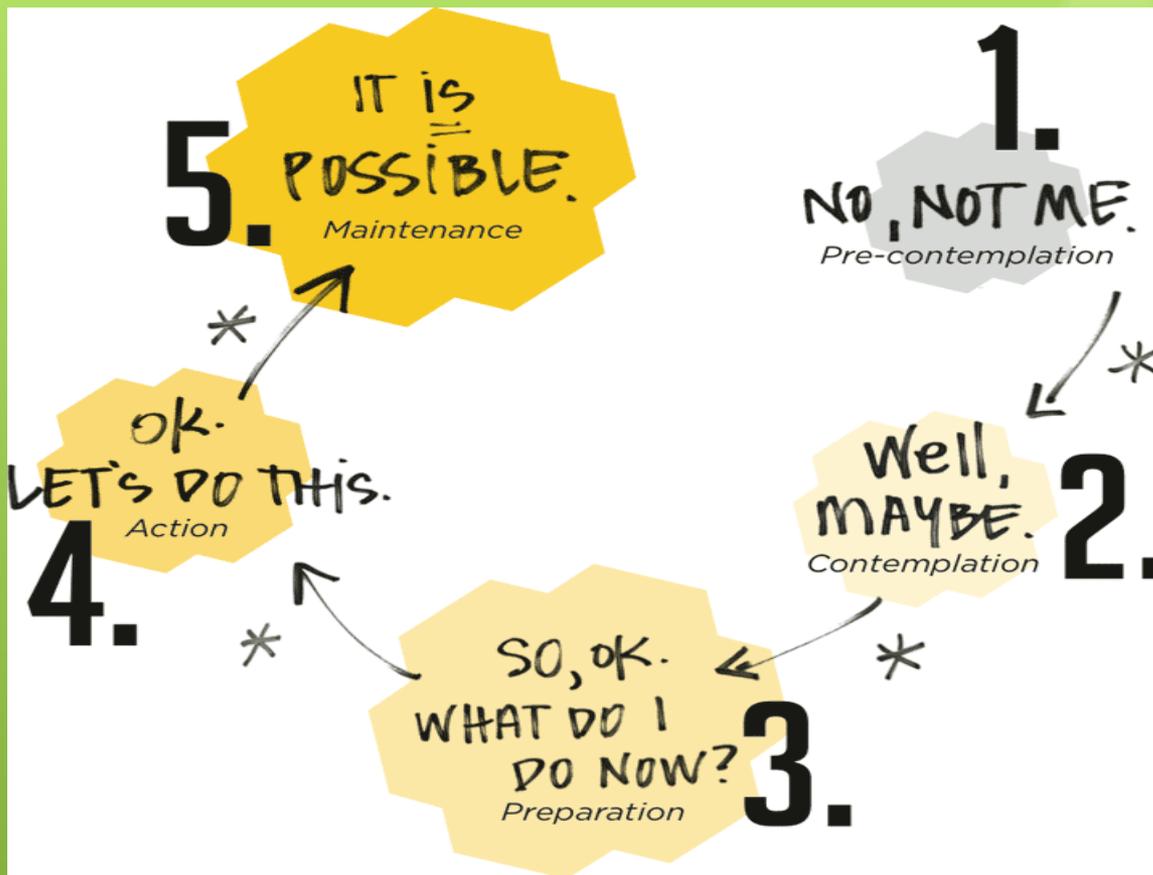
# Scenario #2



Adult

Child

# Scenario #3



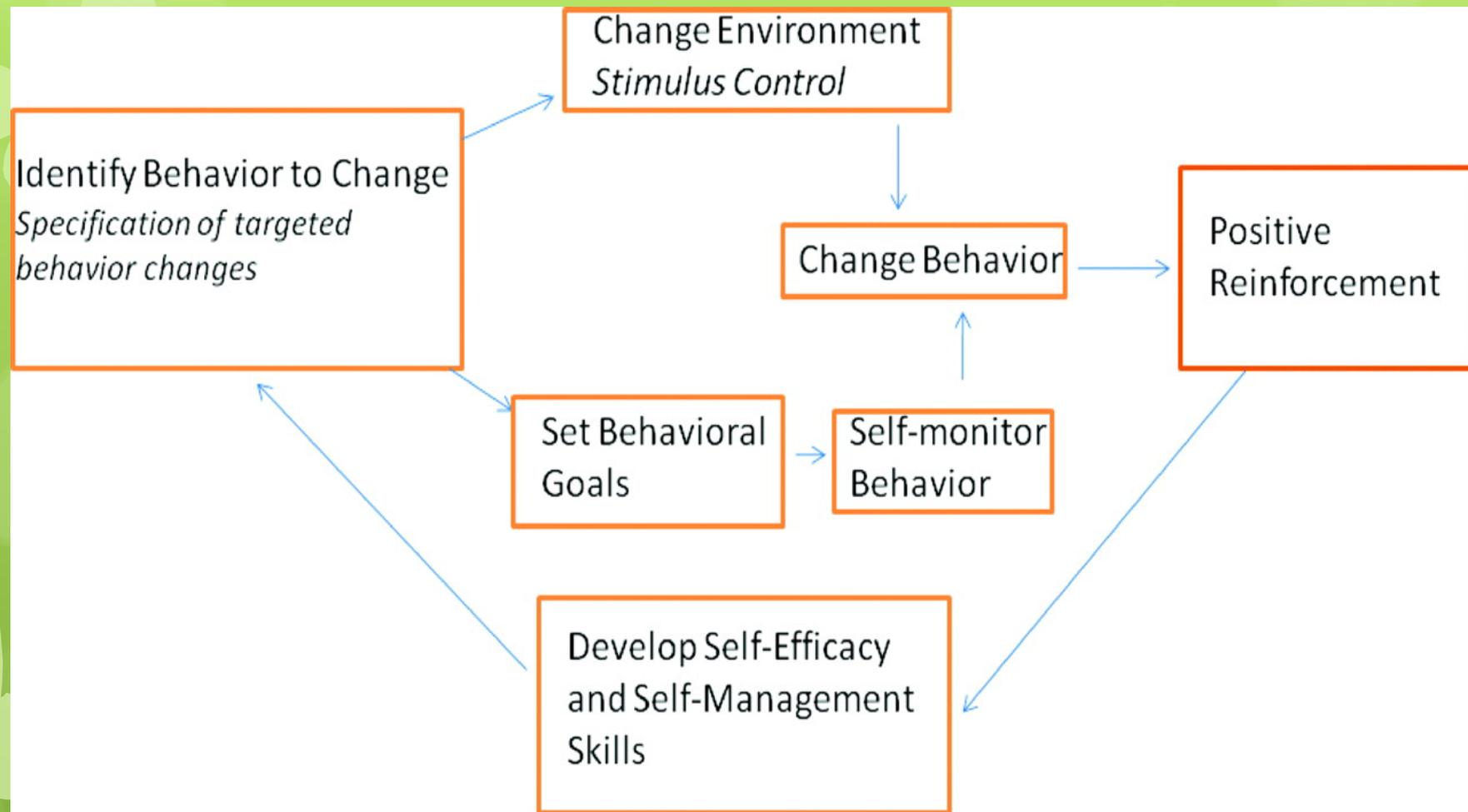
Adult #2

Child

Adult

**How to guide families?**

**Core strategies for changing behavior in family-based interventions for pediatric obesity that include parent and adult caregivers.**



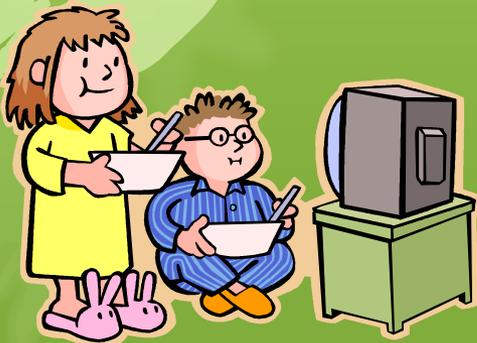
# Identify behaviors to change

- Limit sugar-sweetened beverages
- Eat 5 servings of fruits and vegetables
- Moderate to vigorous activity 60 minutes a day
- Eat breakfast everyday
- Limit portion sizes



# Change the environment

- Limit screen time to no more than 2 hours a day
- Remove TV from child's bedroom
- Limit eating out, esp. at fast food
- Have regular family meals



# Self-monitoring/management

- Who – Parent vs. Child
- Technology
- Supervision is still needed



# Positive Reinforcement



- Relationship dynamics

- Role Models

- When targeted, parents and children lose weight. (Epstein 1994, Boutelle 2012)

- Strategies

- Praise and recognition

- Non-food rewards

# Parenting Style

**TABLE 1** Acceptance and Behavioral Control as Determinants of Parenting Style

	Parenting Style	
	High Acceptance	Low Acceptance
High control	Authoritative	Authoritarian
Low control	Indulgent	Disengaged

Adapted from the work of Chassin et al.<sup>202</sup>



# Parenting Style

- **Authoritative parenting**
  - Lower risk for child obesity
  - Improved consumption of healthful food (not vegetables)
- **Authoritarian parenting**
  - 5-fold increased risk of obesity
- **Indulgent or Disengaged parenting**
  - 2-fold increased risk of obesity
  - Associated with high BMI in low income and rural families in the southern US



# A Year of Being Well

*Narrated by Susan Dell*

Messages from Families on Living Healthier Lives



# Summary

- Children can not be helped in isolation. Families provide context.
- Parent and adult caregivers are important in the weight management for children.
- Key areas where families are thought to have an effect are:
  - identifying goals,
  - controlling the environment,
  - monitoring and management of goals,
  - being positive and encouraging roles models.

**Parents are powerful!**



**Thank you!**

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