



Using the Transtheoretical Model of Change to Promote Physical Health and Emotional Wellness Among Children and Adolescents Who Struggle with Weight Management

Presented by:
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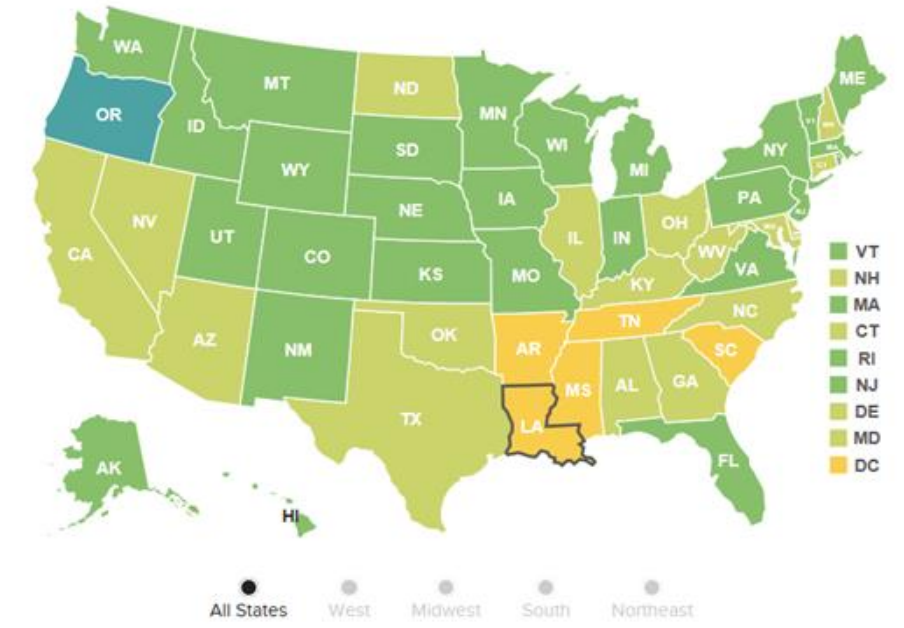
Midwest Stream Forum for Agricultural Worker Health

Obese Children Ages 10 to 17 by State, 2011

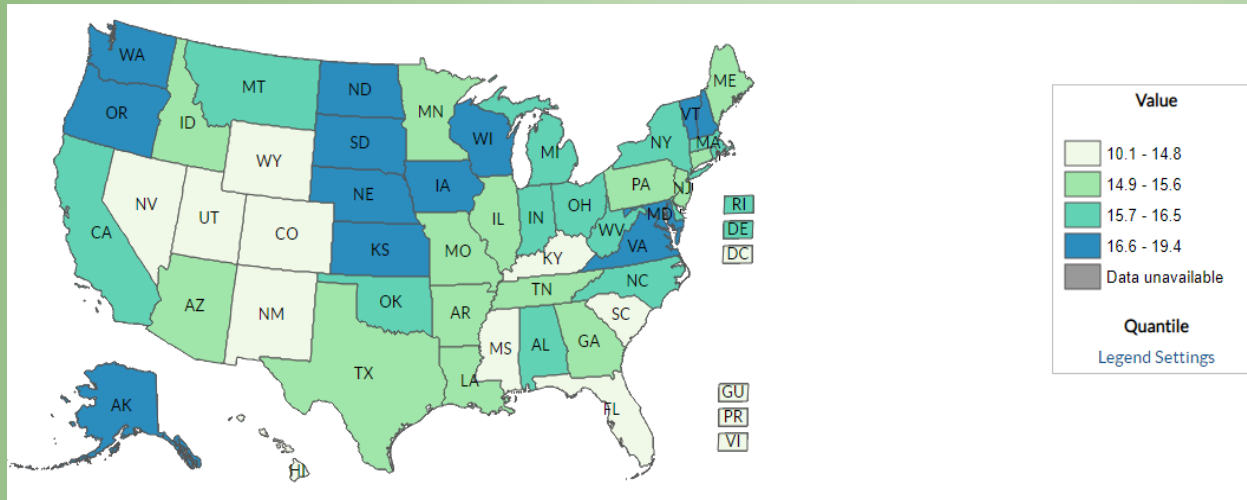
Select years with the slider to see historical data. Hover over states for more information. Click a state to lock the selection. Click again to unlock.

Percent of obese children ages 10 to 17

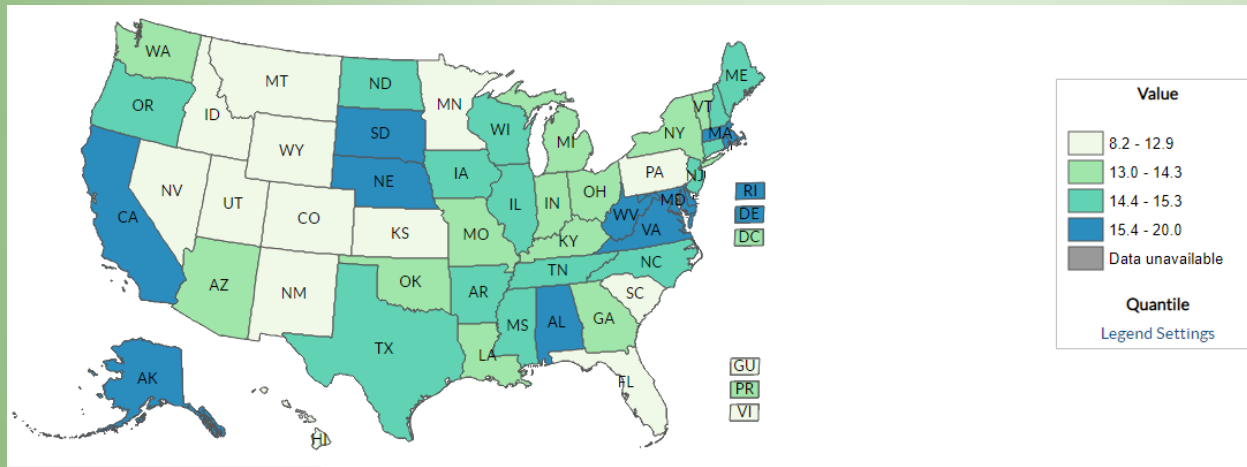
0 - 9.9% 10 - 14.9% 15 - 19.9% 20 - 24.9%



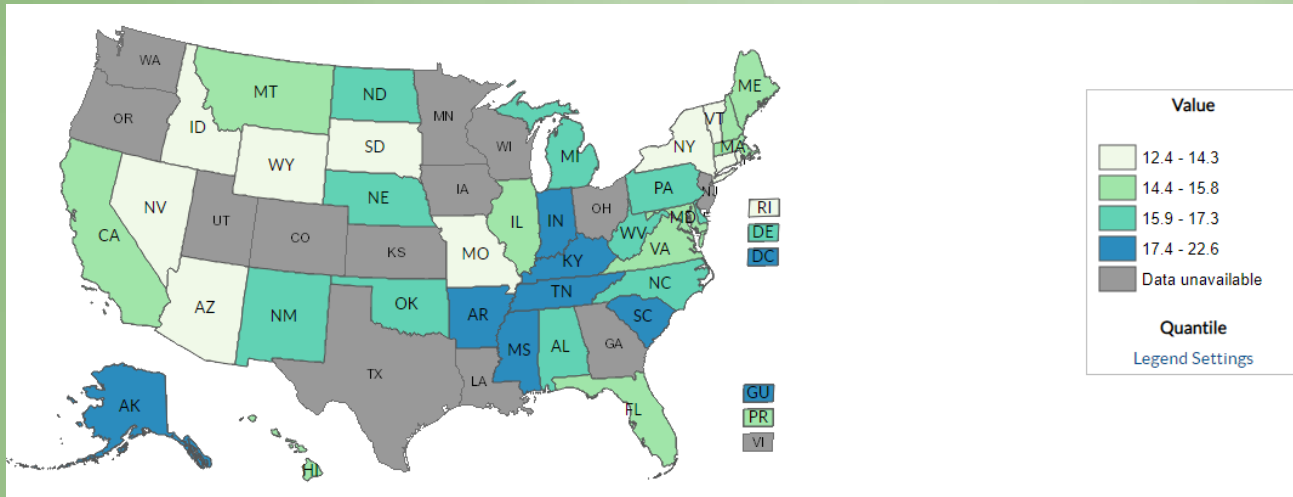
Centers for Disease Control and Prevention. National Center for Chronic Disease Prevention and Health Promotion, Division of Nutrition, Physical Activity, and Obesity. Data, Trend and Maps



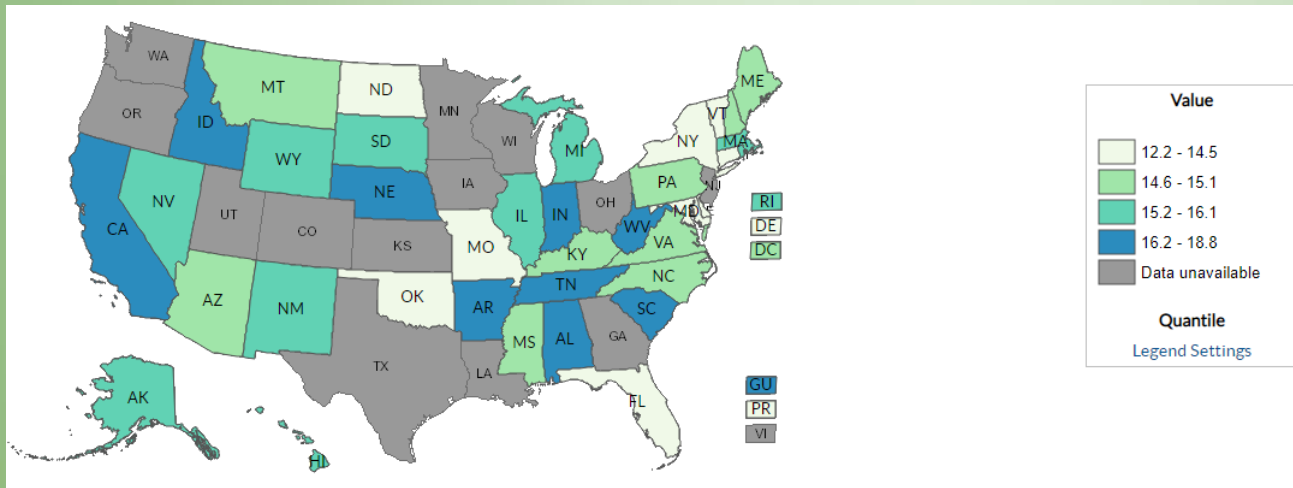
Overweight Children, ages 2-4 years



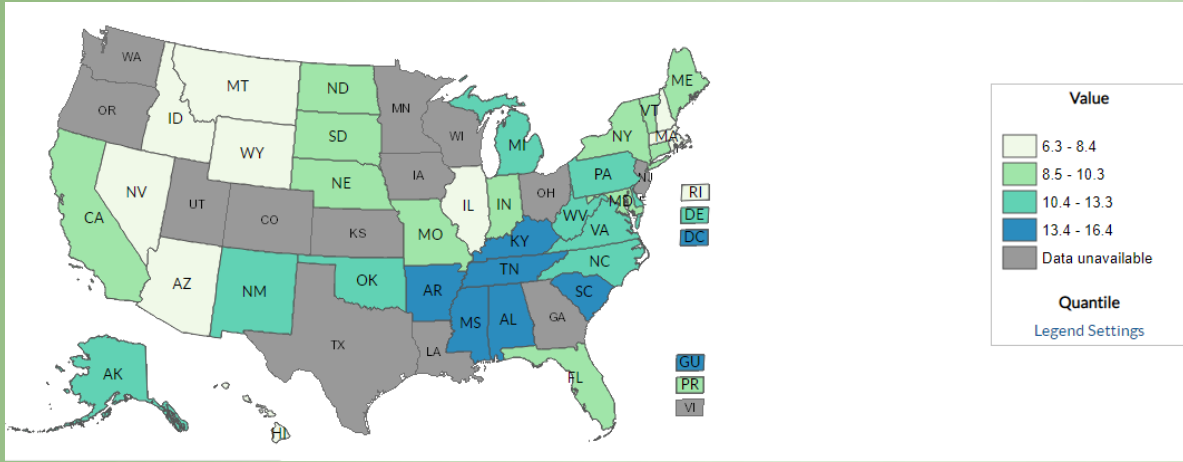
Obese Children, ages 2-4 years



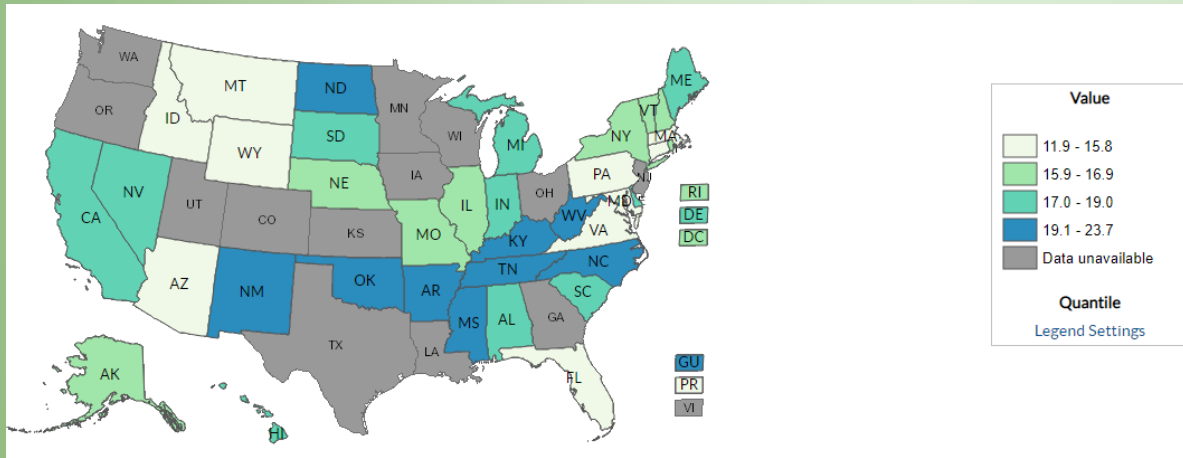
Girls: Overweight



Boys: Overweight



Girls: Obesity



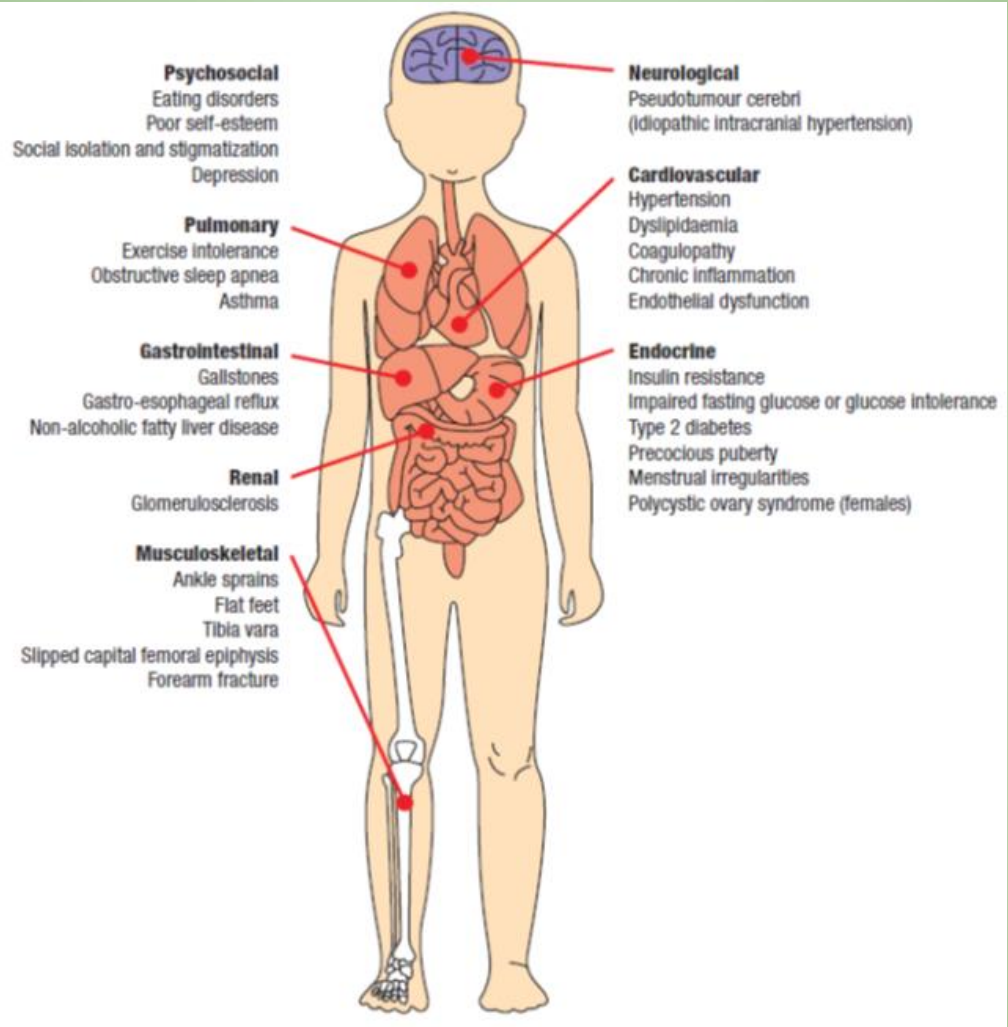
Boys: Obesity

Critical Issue

About 40% of overweight children will continue to have increased weight during adolescence

75–80% of obese adolescents will become obese adults

The consequences of this disease starting in childhood may be more severe as the duration of obesity will be longer



Type 2 Diabetes

The rate of new diagnosed cases of type 2 diabetes rose most sharply in Native Americans (8.9 percent), Asian Americans/Pacific Islanders (8.5 percent) and non-Hispanic blacks (6.3 percent).

The rate of new diagnosed cases of type 2 diabetes increased 3.1 percent among Hispanics. The smallest increase was seen in whites (0.6 percent).

The rate of new diagnosed cases of type 2 diabetes rose much more sharply in females (6.2 percent) than in males (3.7 percent)

Psychosocial Issues

Depression

Lower scores on health-related quality of life

Emotional and behavioral disorders

Low self-esteem

Stigma

Teasing

Bullying

Contributing Factors

Eating high-calorie, low-nutrient foods and beverages

Sedentary activities such as watching television or other screen devices

Sleep routines

Stress

Not getting enough physical activity



2008 Physical Activity Guidelines for Americans



Be Active, Healthy, and Happy!

www.health.gov/paguidelines



Key Guidelines for Children and Adolescents

- Children and adolescents should do 60 minutes (1 hour) or more of physical activity daily



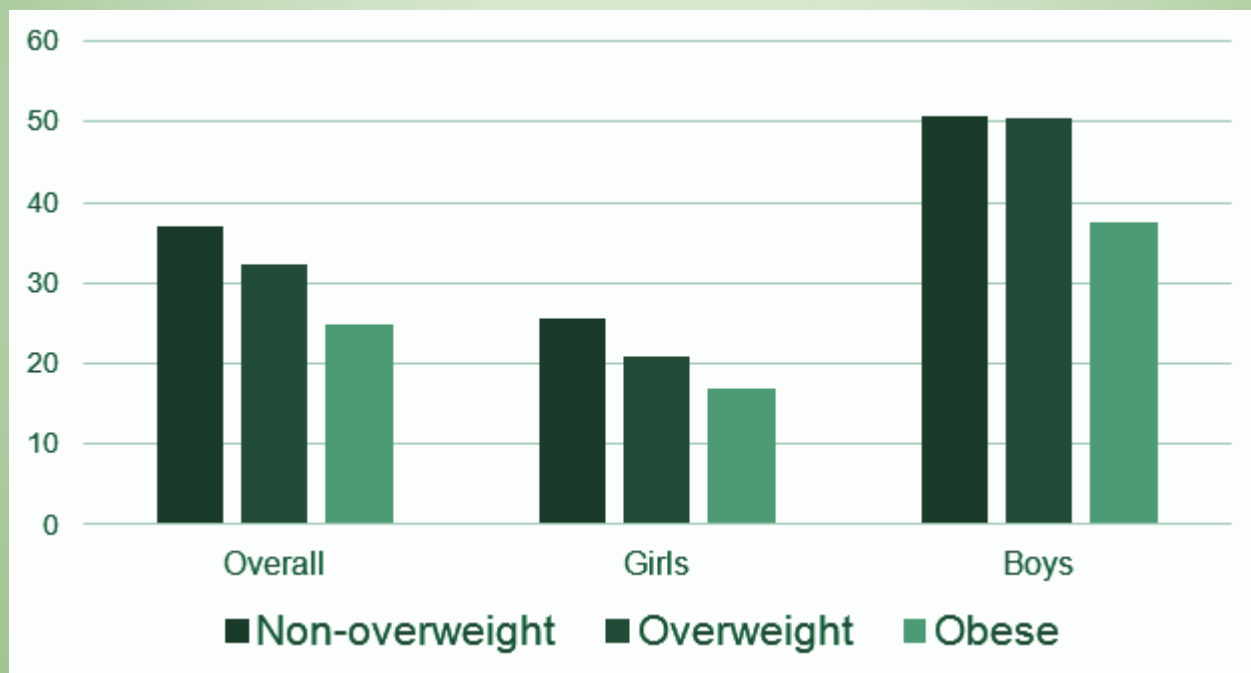
- **Aerobic:** Most of the 60 or more minutes a day should be either moderate- or vigorous-intensity aerobic physical activity, and should include vigorous-intensity physical activity at least 3 days a week.

Muscle-strengthening: As part of their 60 or more minutes of daily physical activity, children and adolescents should include muscle-strengthening physical activity on at least 3 days of the week.

- **Bone-strengthening:** As part of their 60 or more minutes of daily physical activity, children and adolescents should include bone-strengthening physical activity on at least 3 days of the week.

- It is important to encourage young people to participate in physical activities that are appropriate for their age, that are enjoyable, and that offer variety.

58% of children (6-11 yo) and **92%** of adolescents (12-15 yo)
do not meet PA guidelines (Troiano, 2008)



...Doing the same thing over and over again and expecting a different result...



Transtheoretical Model of Change

Intentional behavior change

Views change as a process rather than an event

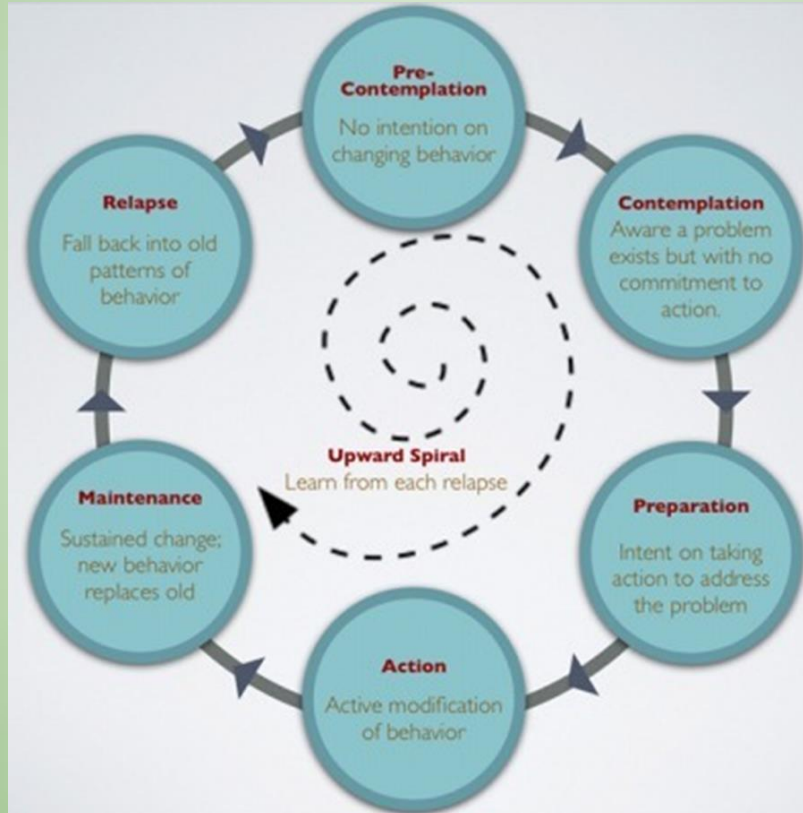
The change process is characterized by a series of stages of change

In attempting to change a behavior, a person typically cycles through the stages of change

Why is it so effective?

-Because it recognizes that people in different stages of change need different types of interventions to help them progress.

Transtheoretical Model of Change



Stage One: Precontemplation

Not considering making a change within the next 6 months (or ever)

“I don’t have a problem”

“I’ll deal with it later”

“My child is not overweight”

Stage Two: Contemplation

Seriously considering making a change within the next 6 months

“Maybe I should change...”

“I would like to change...”

“Maybe she’s right...”

“I’ll think about it”

“Maybe after his growth spurt”

Stage Three: Preparation

Making plans to change within the next 30 days

“I want to change, so I need to...”

Stage Four: Action

Engaging in the changed behavior for at least 6 months

- Nutrition education
- Increased physical activity
- More sleep
- Reduced stress

Stage Five: Maintenance

Have met goal and maintained new behavior for at least 6 months

Stage Six: Termination

Goal met, behavior permanently changed

However...

Most people live in maintenance, or most likely cycle back to a previous stage



What to do first?

Identify the stage of change that you, or the person you are helping, are in.

- Precontemplation

- Contemplation

- Preparation

- Action

- Maintenance

- Termination

Use techniques to propel to next stage...

1. Cognitive

-information processing that goes on inside people's minds, including perception, attention, language, memory, thinking, and consciousness

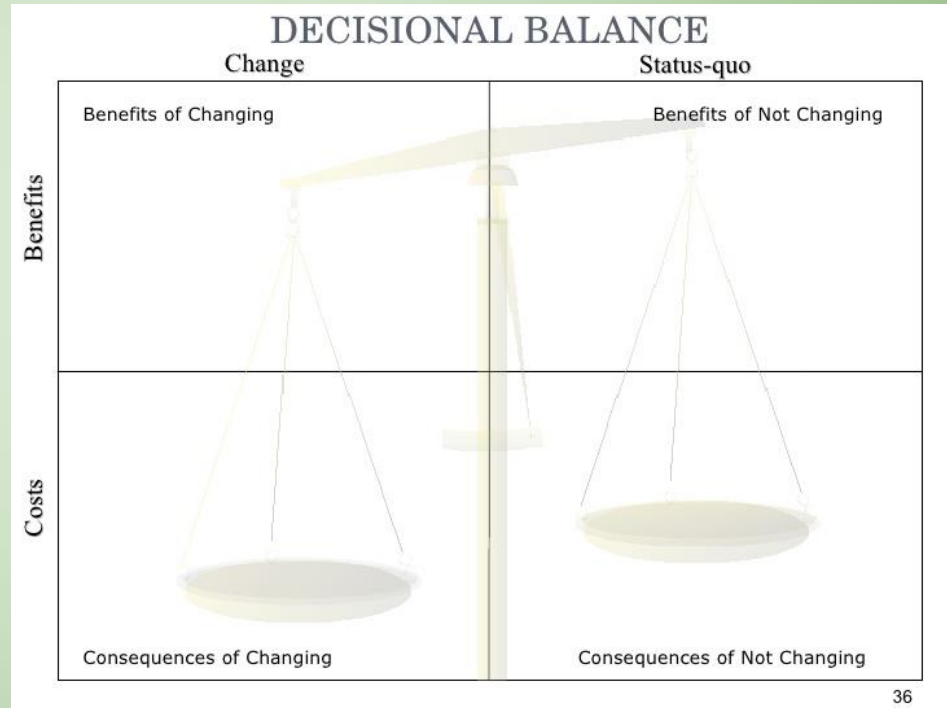
I know that eating a doughnut will not help me lose weight. If I eat it then I will have energy only for a short time, and I will feel bad

2. Behavioral

Eating the doughnut or not eating the doughnut

What else affects ability to change?

-Decisional Balance



Decisional Balance

- Precontemplation stage, the pros in favor of behavior change are outweighed by the relative cons for change and in favor of maintaining the existing behavior
- Contemplation stage, the pros and cons tend to carry equal weight, leaving the individual ambivalent toward change.
- If the decisional balance is tipped however, such that the pros in favor of changing outweigh the cons for maintaining the unhealthy behavior, many individuals move to the Preparation or even Action stage.
- Maintenance stage, the pros in favor of maintaining the behavior change should outweigh the cons of maintaining the change in order to decrease the risk of relapse.

What else?

Self-Efficacy



(Bandura, 1977, 1982)

Cognitive Strategies

Table 1. Cognitive Intervention Strategies

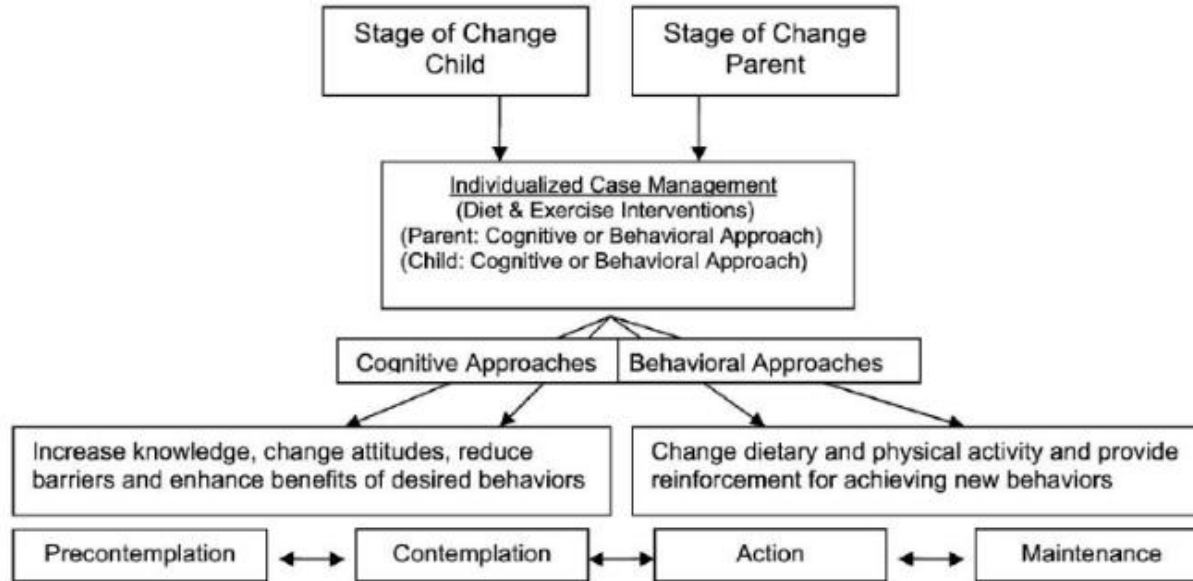
Cognitive Activity	Process of Change
1. Complete a family tree of obesity and obesity-related diseases	Consciousness raising
2. Watch "Supersize Me" video	Consciousness raising
3. Complete a log of duration of time spent engaged in sedentary activities	Self-evaluation
4. List the pros and cons of overweight and inactivity	Self-evaluation
5. Identify activities that prohibit, or that are performed instead of, physical activity	Environmental reevaluation
6. Identify cues to not engaging in physical activity	Environmental reevaluation
7. Identify recommendations for physical activity and compare to the current level of physical activity	Self-evaluation
8. Identify choices that can increase the level of physical activity	Environmental reevaluation
9. Identify the actual and desired BMI	Self-evaluation
10. Identify the impact of obesity on social functioning	Self-liberation
11. Identify approaches to increasing physical activity	Environmental reevaluation
12. Identify perceptions of weight and physical activity	Self-evaluation
13. Understand classification of activities into various levels of physical activity	Consciousness raising
14. Identify one friend who maintains a "healthy" or "active" level of physical activity	Environmental reevaluation

Behavioral Strategies

Table 2. Behavioral Intervention Strategies

Behavioral Activity	Process of Change
1. Interact with others who engage in "healthy" eating and activity patterns	Stimulus control
2. Read all food labels before eating foods	Counterconditioning
3. (Grocery-store) scavenger hunt for favorite and healthy foods	Counterconditioning
4. Eat foods according to the food guide pyramid	Stimulus control
5. Eat "healthy foods" in a fast-food restaurant	Counterconditioning
6. Document eating of new healthy foods	Counterconditioning
7. Plan for dealing with situations where "unhealthy" foods are likely to be eaten or when physical activity decreases (vacation)	Self-liberation
8. Plan a meal according to the food guide pyramid	Counterconditioning
9. Set goals for diet, weight, and physical activity	Counterconditioning
10. Document progress toward goals (public display)	Stimulus control
11. Provide rewards for achieving milestones toward goals	Reinforcement
12. Reduce barriers to physical activity	Counterconditioning
13. Compare current and previous diets and physical activity behaviors	Self-liberation
14. List realized benefits of increased physical activity and diet change	Self-liberation
15. Make a number of plans on how to engage in fewer sedentary activities	Self-liberation

Put it all together



On-Going Research at Southeastern: Project IPAL (Interactive Physical Activity Lab)



Nutrition Education



Questions?

Additional References

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