

# Essential Standard

6.NPA.1 Analyze tools such as Dietary Guidelines and Food Facts Label as they relate to the planning of healthy nutrition and fitness.

# Clarifying Objective

- 6.NPA.1.1 - Attribute the prevention of nutrition-related diseases to following the Dietary Guidelines for Americans

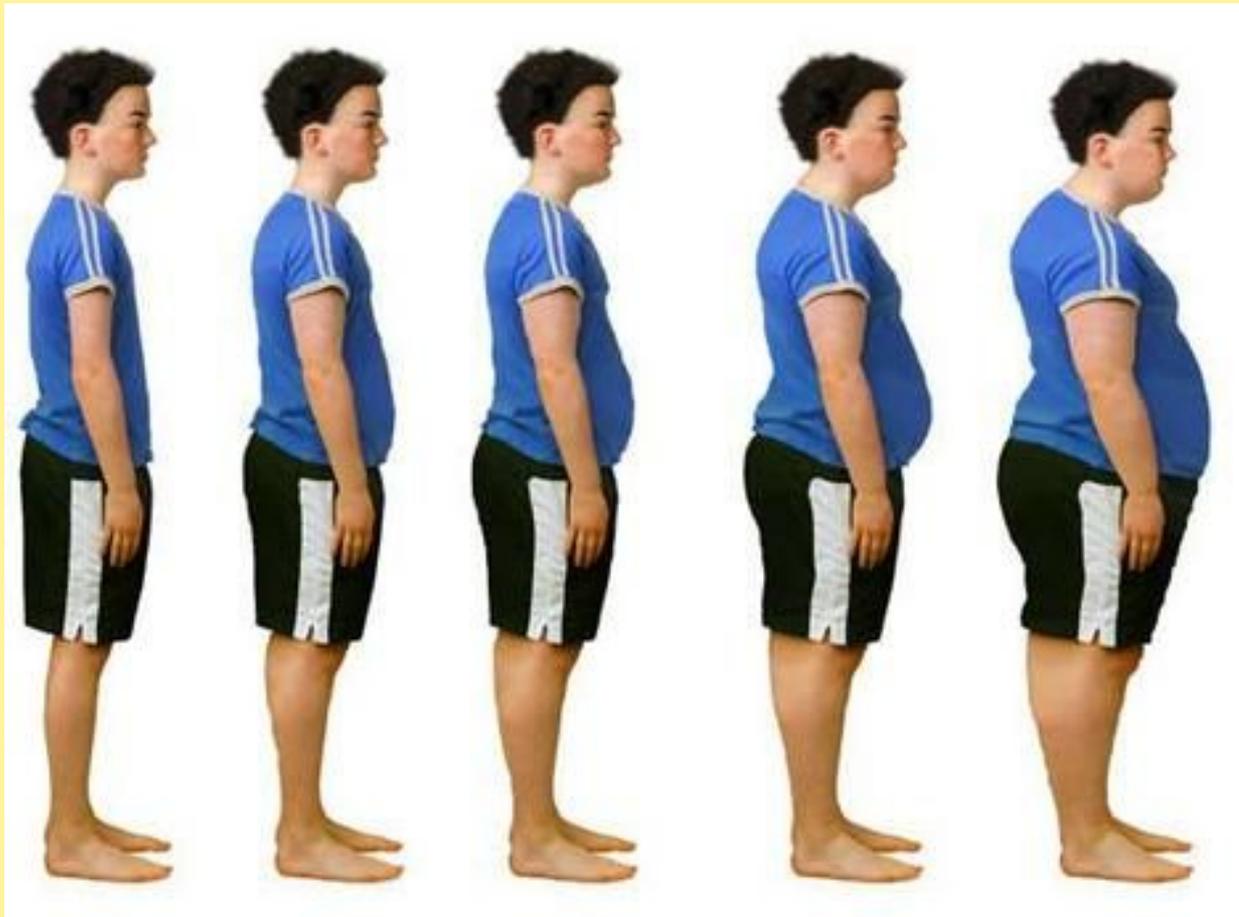
# Statement of Objectives:

- *Today, we are going to examine the Dietary Guideline for Americans and determine the implications on our eating behaviors. In addition, we are going to predict the benefits of eating healthy for a lifetime.*

# Obesity in Childhood

About 1/3 of American children are overweight or obese.

The childhood obesity epidemic is increasing . . .

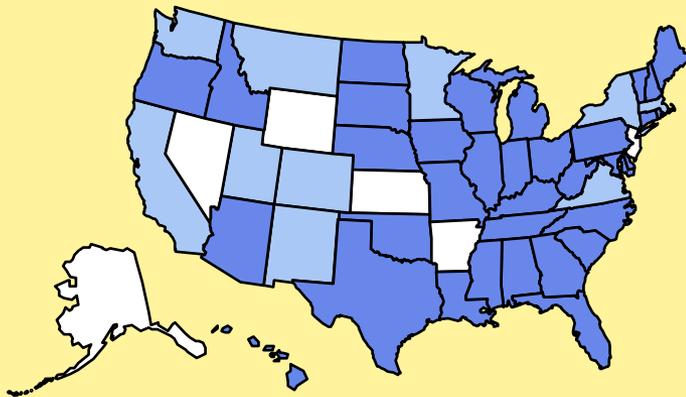


# Obesity Trends\* Among U.S. Adults

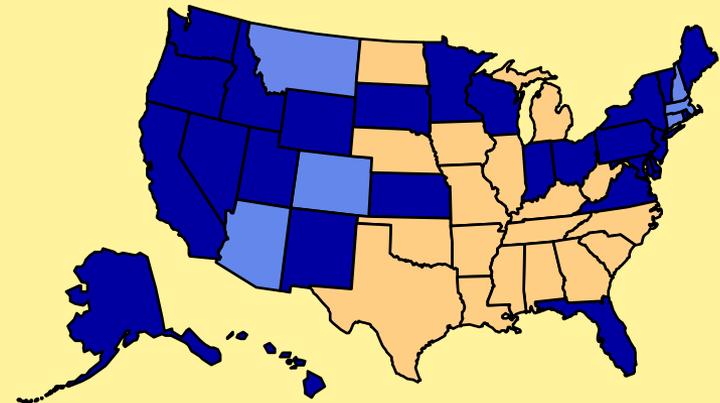
BRFSS, 1990, 1999, 2009

(\*BMI  $\geq 30$ , or about 30 lbs. overweight for 5'4" person)

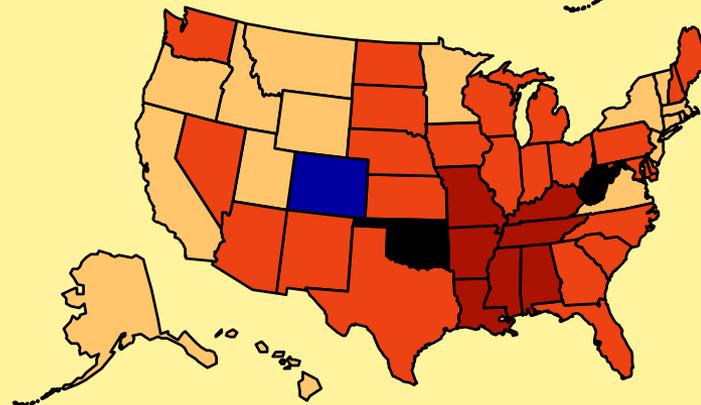
1990



1999



2009



No Data   <10%   10%-14%   15%-19%   20%-24%   25%-29%    $\geq 30\%$



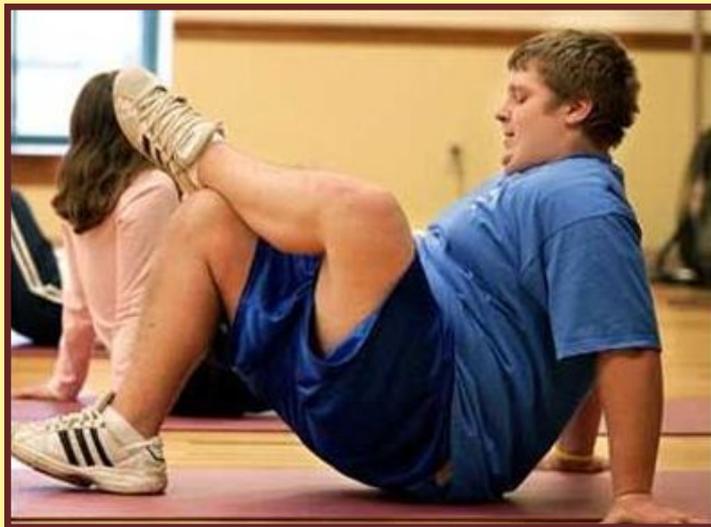
Childhood obesity is doubling every couple of decades . . .



Americans spend \$150 BILLION at fast food restaurants each year.



# Problems that can occur when you are obese as a child?



1. Type-2 Diabetes
2. Metabolic Syndrome
3. High Blood Pressure
4. High Cholesterol
5. Asthma
6. Early Puberty
7. Sleep Disorders
8. Low self-esteem



How many times have you heard parents say, “You can have your ice cream if you eat your spinach?” They quickly assume that if ice cream is the reward, then spinach must be the punishment.

The late Charles Attwood, MD, *Low-Fat Prescription for Kids*

# What are some Nutrition-related Diseases?



# Cardiovascular Disease

37% of Americans have cardiovascular disease (81.1 million)



Major risk factors for contracting Cardiovascular Disease:

- a. High blood cholesterol
- b. Type II diabetes
- c. High blood pressure
- d. Overweight and obesity
- e. Physical inactivity
- f. Tobacco use

Also heredity and gender (being male)

# High Blood Pressure

34% of Americans have high blood pressure (74.5 million)

High blood pressure puts you at risk for the following conditions

- Heart (cardiovascular) disease
- Stroke
- Congestive heart failure
- Kidney disease



Dietary factors that increase risk of high blood pressure:

- Excessive sodium intake
- Insufficient potassium intake
- Overweight and obesity
- Excessive alcohol consumption

# Diabetes

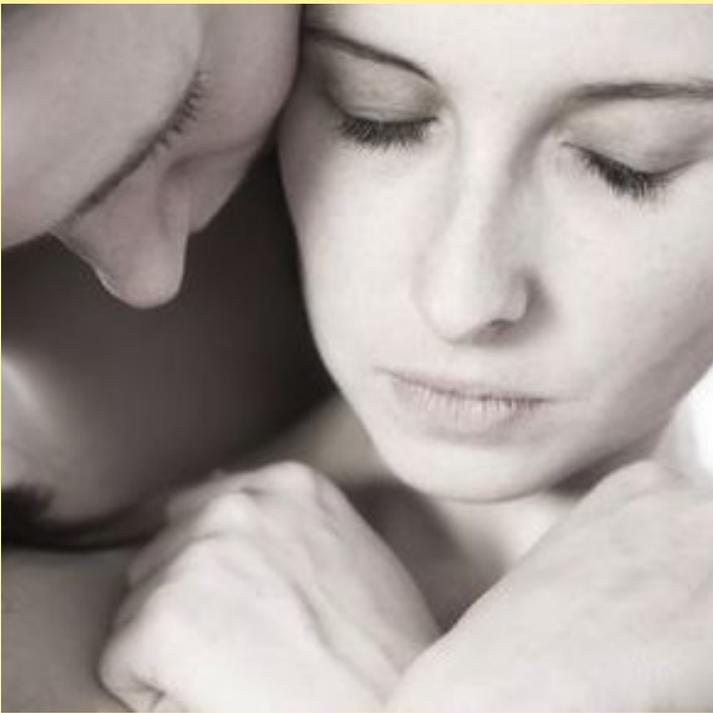
11% of Americans have diabetes (24 million)

35% of Americans have pre-diabetes (78 million)



The vast majority of Type II diabetes cases are linked to

- a. poor diet
- b. physical inactivity
- c. overweight / obesity



Approximately 41% of Americans will be diagnosed with cancer in their lifetime (almost 1 out of 2 people)

# Cancer

Dietary factors can increase the risk of the following cancers:

- a. Breast
- b. Endometrial
- c. Colon
- d. Kidney
- e. Mouth
- f. Pharynx
- g. Larynx
- h. Esophagus

# Osteoporosis

50% of women and 25% of men will have an osteoporosis-related fracture in their lifetime.

Even though these fractures happened in old people, 90% of bone density (thickness) is developed during the teen years.



Adequate *nutrition* and *regular physical activity* are important factors in achieving and maintaining optimal bone mass.

# Dietary Guidelines for Americans 2015-2020

[Dietary Guidelines link](#)

**Guideline 1 - Follow a  
Healthy Eating  
Pattern Across the  
Lifespan.**

## **Eating patterns have a significant impact on health.**

- Diet is one of the most powerful tools we have to reduce the onset of disease. Healthy eating patterns can help prevent obesity, heart disease, high blood pressure, and Type 2 diabetes. Currently, about half of all American adults have one or more of these diet-related chronic diseases.

## **Healthy eating patterns are adaptable.**

- When people follow a healthy eating pattern, they can incorporate many of the foods they enjoy. Healthy eating patterns can work for anyone, accommodating their traditions, culture, and budget.

Guideline 2 - Focus  
on Variety, Nutrient  
Density, & Amount.

The Dietary Guidelines gives clear recommendations about how to follow a healthy eating pattern. By definition, healthy eating patterns need to:

- Stay within appropriate calorie limits for a person's age, sex, and activity level
- Meet nutritional needs
- Be achievable and maintainable in the long-term

Healthy eating patterns include nutrient-dense forms of:

- A variety of vegetables: dark green, red and orange, legumes (beans and peas), starchy, and other vegetables
- Fruits, especially whole fruits
- Grains, at least half of which are whole grains
- Fat-free or low-fat dairy, including milk, yogurt, cheese, and fortified soy beverages
- A variety of protein foods, including seafood, lean meats and poultry, eggs, legumes (beans and peas), soy products, and nuts and seeds
- Oils, including those from plants (canola, corn, olive, peanut, safflower, soybean, and sunflower) and oils that are naturally present in foods (nuts, seeds, seafood, olives, and avocados)

Note that these foods are only nutrient dense if they're prepared with little or no added solid fats, sugars, refined starches, and sodium.

**Guideline 3 - Limit  
Calories from Added  
Sugars & Saturated  
Fats  
& Reduce Sodium Intake.**

**Added Sugars: Limit to less than 10% of total calories daily.**

- When sugars or syrups are added to foods as they're processed or prepared, they're called added sugars. (Natural sugars—in fruits, vegetables, and milk—are not added sugars.) Added sugars add calories without other nutritional value. When a person's diet is high in added sugars, it may be hard for them to achieve a healthy eating pattern.

**Saturated & Trans Fats: Limit saturated fats to less than 10% of total calories daily by replacing them with unsaturated fats and limit trans fats to as low as possible.**

- Diets high in saturated and trans fats are associated with heart disease. Foods high in saturated fats include butter, whole milk, and meats that aren't labeled lean. Trans fats are in processed foods, like desserts, frozen pizza, and coffee creamer.

**Sodium: Limit to less than 2,300 mg daily (for adults and children 14 years and older).**

- Most Americans get 50% more sodium than recommended. Diets high in sodium are associated with high blood pressure and heart disease.

**Alcohol: Limit to no more than 1 drink daily for women and no more than 2 for men.**

- The Dietary Guidelines doesn't recommend that people start drinking alcohol for any reason and many people shouldn't drink, such as women during pregnancy. But for adults of legal drinking age who already do, moderation is essential.

Guideline 4 -  
Shift to  
Healthier Food &  
Beverage  
Choices.

Making healthy shifts is a great way to add more nutrient-dense foods while eating fewer foods with added sugars, saturated and trans fats, and sodium.

Examples include shifts from:

- Full-fat cheese or whole milk to low-fat cheese or milk
- White bread to whole wheat
- Fatty cuts of meat to seafood or beans
- Butter to olive or canola oil
- Soft drinks to water  
Potato chips to unsalted nuts

**Guideline 5 -  
Support Healthy  
Eating Patterns  
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**Guideline 5 -  
Support Healthy  
Eating Patterns  
for All.**

## **At Home**

- Add more veggies to favorite dishes
- Plan meals as a family and cook at home
- Incorporate physical activity into time with family or friends

## **In Schools Support healthier options in the cafeteria**

- Encourage nutrition education programs or school gardens
- Increase physical activity during school

## **At Work**

- Add healthier food options in vending machines and during staff functions
- Provide health and wellness programs and nutrition counseling
- Plan regular activity breaks and walking meetings

## **In the Community**

- Start a community garden or farmers' market
- Improve healthy food options at shelters and food banks
- Create walkable communities by maintaining safe public spaces

# Physical Activity Guidelines for Americans

## 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.



## Differences in Saturated Fat and Calorie Content of Commonly Consumed Foods

This table shows a few practical examples of the differences in the saturated fat content of different forms of commonly consumed foods. Comparisons are made between foods in the same food group (e.g., regular cheddar cheese and low-fat cheddar cheese), illustrating that lower saturated fat choices can be made within the same food group.

Food Category	Portion	Saturated Fat Content (grams)	Calories
<b>Cheese</b>			
Regular cheddar cheese	1 oz.	6.0	114
Low-fat cheddar cheese	1 oz.	1.2	49
<b>Ground beef</b>			
Regular ground beef (25% fat)	3 oz. (cooked)	6.1	236
Extra lean ground beef (5% fat)	3 oz. (cooked)	2.6	148
<b>Milk</b>			
Whole milk (3.25%)	1 cup	4.6	146
Low-fat (1%) milk	1 cup	1.5	102
<b>Breads</b>			
Croissant (med)	1 medium	6.6	231
Bagel, oat bran (4")	1 medium	0.2	227
<b>Frozen desserts</b>			
Regular ice cream	1/2 cup	4.9	145
Frozen yogurt, low-fat	1/2 cup	2.0	110
<b>Table spreads</b>			
Butter	1 tsp.	2.4	34
Soft margarine with zero <i>trans</i> fats	1 tsp.	0.7	25
<b>Chicken</b>			
Fried chicken (leg with skin)	3 oz. (cooked)	3.3	212
Roasted chicken (breast no skin)	3 oz. (cooked)	0.9	140
<b>Fish</b>			
Fried fish	3 oz.	2.8	195
Baked fish	3 oz.	1.5	129

# Independent Practice:

- Make a digital presentation for every one of the 2015 Dietary Guidelines for Americans and Physical Activity Guidelines for Americans
- Each guideline should have its own page.
  - **Follow a Healthy Eating Pattern Across the Lifespan**
  - **Focus on Variety, Nutrient Density, & Amount.**
  - **Limit Calories from Added Sugars & Saturated Fats & Reduce Sodium Intake.**
  - **Shift to Healthier Food & Beverage Choices.**
  - **Support Healthy Eating Patterns for All.**
  - **Children and adolescents should do 60 minutes (1 hour) or more of physical activity daily.**
- ❖ **There must be 3 supporting facts and 3 supporting pictures on each page.**

# Closure:

- *You did a great job today understanding the Dietary Guidelines and determining the types of behavior changes that would be necessary to follow those suggestions.*