Supersizing Our Nation

Childhood & Adult Obesity in the U.S.:

<table>
<thead>
<tr>
<th>Facts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consequences</td>
</tr>
<tr>
<td>Contributors</td>
</tr>
<tr>
<td>Future Prevention Efforts</td>
</tr>
</tbody>
</table>

[Image of a huge cheeseburger]
Partnering Organizations:

- Nebraska Department of Education
- University of Nebraska Lincoln Extension
- Nutrition & Activity For Health
- Prevention Works
- Department of Health & Human Services
- Nebraska Team Nutrition
Objectives

• Describe the current obesity epidemic in the U.S. for both children and adults.

• List the possible consequences of being overweight as a young child and adult.

• Discuss the factors in the environment that make it harder to eat smart and move more.

• Describe the role of the child care environment and of child care staff in helping to prevent overweight in children.
Why the Increase in Obesity?

- Rising obesity rates result from increases in caloric intake and/or decreases in caloric expenditure.
- The rise in obesity rates in the last decade could be explained by as little as an average net ↑ of 100 calories per day.

<table>
<thead>
<tr>
<th>Energy In</th>
<th>Energy Out</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 carrots (40 cal)</td>
<td>9 minutes of walking</td>
</tr>
<tr>
<td>1 apple (70 cal)</td>
<td>15 minutes of walking</td>
</tr>
<tr>
<td>1 cookie (130 cal)</td>
<td>29 minutes of walking</td>
</tr>
<tr>
<td>11 chips (160 cal)</td>
<td>Over 35 minutes of walking</td>
</tr>
<tr>
<td>1 donut (270 cal)</td>
<td>60 minutes of walking</td>
</tr>
</tbody>
</table>
Energy Balance and Imbalances

a) Energy balance
   Calories in → Calories out

b) Positive energy balance
   Calories in → Calories out

c) Negative energy balance
   Calories in → Calories out
Changes in Caloric Intake From 1970 to 2000

Average Calorie Intake 1970 and 2000

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
<th>Boys</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change</td>
<td>(+168)</td>
<td>(+335)</td>
<td>(+250)</td>
<td>(+120)</td>
</tr>
</tbody>
</table>

Graph showing changes in caloric intake for men, women, boys, and girls from 1970 to 2000.
Body Mass Index (BMI) - The standard measurement of overweight & obesity and is based on a weight to height ratio.

<table>
<thead>
<tr>
<th>BMI classification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underweight</td>
<td>&lt; 18.5</td>
</tr>
<tr>
<td>Normal range</td>
<td>18.5 - 24.9</td>
</tr>
<tr>
<td>Overweight</td>
<td>≥ 25.0</td>
</tr>
<tr>
<td>Preobese</td>
<td>25.0 - 29.9</td>
</tr>
<tr>
<td>Obese</td>
<td>≥ 30.0</td>
</tr>
<tr>
<td>Obese class I</td>
<td>30.0 - 34.9</td>
</tr>
<tr>
<td>Obese class II</td>
<td>35.0 - 39.9</td>
</tr>
<tr>
<td>Obese class III</td>
<td>≥ 40.0</td>
</tr>
</tbody>
</table>
BMI is calculated from child’s height & weight.

It’s plotted on a growth chart based on age & gender to find BMI percentile.

BMI between 85th to less than 95th percentile is considered overweight.

BMI equal to or greater than the 95th percentile is classified as obese.
• In the U.S., **26.7%** of **children** ages 2-5 are overweight or obese.
  - NE has the 20th highest percentage of overweight & obese children at 31.5%.

• More than one-third (**35.7%**) of U.S. **adults** are obese.
Obesity Trends* Among U.S. Adults
BRFSS, 1994

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* among U.S. Adults
BRFSS, 1995

(*BMI ≥30, or ~30 lbs. overweight for 5’4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 1996

(*BMI ≥30, or ~ 30 lbs. overweight for 5’4” person)
Obesity Trends* Among U.S. Adults

BRFSS, 1997

(*BMI ≥30, or ~30 lbs. overweight for 5’4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 1998

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults

BRFSS, 1999

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults

BRFSS, 2000

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 2001

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults

BRFSS, 2002

(*BMI ≥30, or ~ 30 lbs. overweight for 5’4” person)
Obesity Trends* Among U.S. Adults

BRFSS, 2003

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 2004

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults

BRFSS, 2005

(*BMI ≥30, or ~ 30 lbs. overweight for 5’4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 2006

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults

BRFSS, 2007

(*BMI ≥30, or ~ 30 lbs. overweight for 5’4” person)
Obesity Trends* Among U.S. Adults

BRFSS, 2008

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults

BRFSS, 2009

No Data <10% 10%–14% 15%–19% 20%–24% 25%–29% ≥30%

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 2010

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Adult Obesity* Trends in the U.S.
(*BMI ≥30, or about 30 lbs. overweight for 5’4” person)

Source: Behavioral Risk Factor Surveillance System, CDC.
Projected Increases in Obesity Rates for Nebraska

2011 – 28.4% NE adults obese
2030 – Projected up to 56.9% NE adults obese
Projected Increases in Disease Rates for NE

Over the next 20 years, obesity could contribute to the following:

- **225,263** new cases of **type 2 diabetes**,  
- **491,469** new cases of **coronary heart disease & stroke**,  
- **446,122** new cases of **hypertension**,  
- **290,050** new cases of **arthritis**, and  
- **68,288** new cases of **obesity-related cancer** in NE.
How Reducing Obesity Could Lower Health Care Costs

If BMIs were lowered by just 5%, Nebraska could save 7.5% in health care costs, which would equate to savings of approximately $3 billion by 2030.
How Reducing Obesity Could Lower Disease Rates

The number of NE residents who could be spared from developing new cases of major obesity-related diseases includes:

- **47,577** people could be spared from type 2 diabetes,
- **40,796** from coronary heart disease and stroke,
- **36,005** from hypertension,
- **20,601** from arthritis, and
- **3,243** from obesity-related cancer.
ACTIVITY

Life with the Wright Family
• Childhood obesity has more than tripled in 30 years.
• Overweight is now the most common nutritional disease of children.
• 1 in 3 children born in the year 2000 will develop diabetes.
• Preschool children who are overweight are almost 5x more likely to be overweight as young adults.
• Children who are obese by age 10 are 80% more likely to be obese by middle age.

Should we be concerned for kids?
Brainstorm

What are the health risks to overweight or obese children and adults?
Not just an issue of weight!
Relationship of Overweight With Other Health Issues
(By Weight Classification; Metro Area, 2011)

Chronic Depression: 21.5% Healthy, 22.9% Overweight, 29.6% Obese
Activity Limitations: 11.4% Healthy, 15.8% Overweight, 15.3% Obese
Arthritis/Rheumatism: 12.1% Healthy, 15.3% Overweight, 27.1% Obese
"Fair/Poor" Health: 6.3% Healthy, 9.9% Overweight, 26.1% Obese
Diabetes: 9.6% Healthy, 9.6% Overweight, 20.8% Obese
Sciatica/Chronic Back Pain: 11.0% Healthy, 13.8% Overweight, 20.2% Obese
Chronic Heart Disease: 2.9% Healthy, 5.2% Overweight, 8.1% Obese

Sources:
- 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 7, 33, 34, 38, 42, 112, 115]
Notes:
- Based on reported heights and weights, asked of all respondents.
Brainstorm

What are the health benefits of proper nutrition and physical activity?
Health Benefits

- Better Sleep
- Attention
- Learning Benefits
- Social behavior
- Self-Esteem
- Healthy weight
- Prevent chronic disease
- Increased Energy
- Mood
What Factors affect Obesity?

- Biology
  - Genes
- Behaviors
  - Diet
  - Physical activity
- Environments
  - Social
  - Physical

FOCUS ON WHAT WE CAN CHANGE!
Contributors to Childhood Obesity

- Eating patterns
- Parenting style
- Low-birth weight
- Excessive weight gain in pregnancy
- Formula feeding
- Food choices
- Physical activity
- Obese parents
- Parents with poor health behaviors
- Demographic factors

(Contributors in red are ones that can be controlled by parents)
Brainstorm

What factors in the environment make it harder for us to eat smart and move more?
Environmental Factors

- Urban sprawl and time spent in cars
- The way our cities are designed
- Poor access to recreational facilities
  - Lack of parks and green spaces
  - Density of fast food restaurants
  - Presence of convenience store
  - Price matters
The Way Our Cities are Designed
Poor Access to Recreational Facilities
Lack of Parks and Green Spaces
Density of Fast Food Restaurants
Eating Away from Home Contributes to Portion Distortion

FRENCH FRIES

20 Years Ago

210 Calories
2.4 ounces

Today

610 Calories
6.9 ounces

Calorie Difference: 400 Calories!!
Presence of Convenience Stores and Absence of Grocery Stores
Price Matters

Data are from the Bureau of Labor Statistics and represent the U.S. city averages for all urban consumers in January of each year.
Work

- Work environment that doesn’t support or encourage healthy eating or physical activity.

- Technology that makes work easier, but reduces physical activity.
Home

- Availability and *accessibility* of fruits & veggies and healthy snacks
- Family mealtime
- Family traditions
  - walks after dinner or watching TV
  - playing with the kids

**Adults control what enters the home!**
• Time outdoors, especially for kids, has been shown to relate to physical activity

• Presence of exercise or play equipment

• Outdoor space for child play

• Media importance in home

• Number and location of TVs
Role of the Child Care Environment

• The Child care setting is ideal for promoting early development of health behaviors.

• As of 2012, there are nearly 11 million children under age 5 in the United States that are in some type of child care arrangement every week.
You can make a difference!

Child care providers are advocates for healthy children!!

What can you do to help prevent childhood obesity?

Focus on what we can change!
ACTIVITY

Complete the
“Improving YOUR Facility’s Nutrition & Physical Activity Environment” Worksheet