Child Nutrition and the Food Industry

Jamie I. Baum, PhD

Obesity is a Global Epidemic

- In 1997, the WHO acknowledged that obesity is a major public health problem. (WHO 1997)
  - Most, if not all, governments at present readily accept obesity as a complex and severe public health concern.
- In 2015, WHO predicts that 2.3 billion people will be overweight and more than 700 million people will be obese (WHO 2011).
- Childhood obesity rates are skyrocketing around the world. (WHO 2010)
  - 43 million children younger than 5 years of age being classified as overweight or obese.

Obesity in the US

- 34% of adults in the US over 20 years of age are obese
  - >74 million adults
- 34% of adults in the US over 20 years of age are overweight
- 25% of obese adults were overweight or obese as children
- Arkansas is ranked the 8th fattest state in the US with 67.2% of the population being overweight or obese

Obesity Trends* Among U.S. Adults
BRFSS, 1990, 2000, 2010
(*BMI ≥30, or about 30 lbs. overweight for 5’4” person)

Childhood Obesity Rates Around the World

- Overweight & Obesity in Children around the world
  - Based on IOTF cut off points
Childhood Obesity in the US

- ~17% of children and adolescents aged 2—19 years are obese (~12.5 million).
- 10.5% of 2—5 year olds in the US are classified as obese.
- Since 1980, obesity prevalence among children and adolescents has almost tripled.
- There are significant racial and ethnic disparities in obesity prevalence among U.S. children and adolescents.

2009 State Prevalence of Obesity Among Low-Income Children Aged 2 to 4 Years

The Economic Consequences of Childhood Obesity

- Direct costs of childhood obesity include: annual prescription drug, emergency room ($14.1 billion) and outpatient costs ($237.6 million).
- Even larger cost when obese children become obese adults ($147 billion).
- Indirect costs of obesity include: labor-market costs to the obese individual and potentially the employer.
  - Obesity is associated with delayed skill acquisition in children as young as 2-3 years old.
  - Adult obesity is associated with lower wages.
  - Obesity-related job absenteeism totals $4.3 billion annually.
  - Obesity is associated with lower productivity while at work which totals $506 per obese worker per year.

How is obesity in children determined?

- BMI = Body Mass Index
- Adults: BMI = mass (kg)/height (m²)
- For children and adolescents (2-19 years), BMI is plotted on the CDC’s growth charts to determine the corresponding BMI-for-age percentile.

BMI Trends in Arkansas Public School Students

- Assessment of Childhood and Adolescent Obesity in Arkansas (Year Eight – Fall 2010-Spring 2011)

BMI Percent of Students Classified as Obese or Overweight by Ethnic Group in Arkansas Public Schools

- Assessment of Childhood and Adolescent Obesity in Arkansas (Year Eight – Fall 2010-Spring 2011)
Impact of Childhood Obesity on Health

- Becoming obese at an early age increases the risk of remaining obese during childhood, adolescence and adulthood.
- It is more difficult to fight obesity when it starts at a young age.
- Toddlers who remain obese into childhood are at risk of developing health complications later in life.

Causes of Childhood Obesity

- Eating too many calories and not getting enough physical activity.
- Environment that promotes increased consumption of less healthy food choices and physical activity.
  - Sugar drinks and less healthy foods on school campuses
  - Advertising of less healthy foods
  - Variation in licensure regulations among child care centers
  - Lack of daily, quality physical activity in all schools
  - No safe and appealing place, in many communities, to play or be active
  - Limited access to healthy affordable foods
  - Greater availability of high-energy-dense foods and sugar drinks
  - Increasing portion sizes
  - Lack of breastfeeding support
  - Television and media

Nutrition Early in Life Can Impact Obesity Development Later in Life

- “Metabolic Programming”
- Maternal and infant nutrition influence (“imprint”/“program”) the development of:
  - Obesity
  - Diabetes
  - Metabolic syndrome
  - Atherosclerosis
  - Hypertension
  - Cancer
  - Mental functions
  - Food allergy and intolerance

Key Messages - Childhood Obesity

- Obesity is a global epidemic.
- Childhood obesity rates are rising around the world.
- Childhood obesity has a big impact on the economy.
- Becoming obese at an early age increases the risk of remaining obese during childhood, adolescence and adulthood.
- Obesity has an impact on long-term health.
- Nutrition early in life can impact obesity development later in life.

Dietary Guidelines for Americans 2010

Key Recommendations

- Balancing calories to manage weight
  - Increase physical activity
  - Maintain appropriate calorie balance during each stage of life
- Food and food components to reduce
  - Saturated fats
  - Less than 10% of kcal from saturated fats
  - <100 mg/day cholesterol
  - Keeptrans fatty acids as low as possible
  - Reduce intake of calories from added fats and added sugars
  - Limit consumption of refined grains
  - If alcohol is consumed, consume in moderation
- Foods and nutrients to increase
  - Fruit and veg intake
  - At least half of all grains as whole grains
  - Increase intake of fat-free or low-fat dairy products
  - Variety of protein
  - Use oils to replace solid fats
- Build healthy eating patterns

Reprint from the Dietary Guidelines Advisory Committee on the Dietary Guidelines for Americans, 2010
Building Blocks for a Healthy Diet

- Focus on fruit
- Vary your veggies
- Make at least half your grains whole
- Go lean with protein
- Get your calcium-rich foods

Make your plate fruits and veg

http://.choosemyplate.gov

What are children eating?

- Most children and teens eat enough calories
- High-sugar drinks
- Foods higher in calories and lower in nutrients
- Foods from outside the home
- Snacks
- Higher intake of solid fats and/or added sugar
- Grain-based desserts
- Larger portions

http://www.eatright.org - Kids Eat Right report

Where does sugar in kid’s diets come from?

Percent Contribution of Foods to Calories from Added Sugar in Kids’ Diets

<table>
<thead>
<tr>
<th>Rank</th>
<th>Food Group</th>
<th>Contribution [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sodas/energy drinks</td>
<td>32%</td>
</tr>
<tr>
<td>2</td>
<td>Fruit drinks</td>
<td>15%</td>
</tr>
<tr>
<td>3</td>
<td>Grain-based desserts</td>
<td>11%</td>
</tr>
<tr>
<td>4</td>
<td>Dairy desserts</td>
<td>8%</td>
</tr>
<tr>
<td>5</td>
<td>Candy</td>
<td>7%</td>
</tr>
<tr>
<td>6</td>
<td>Ready-to-eat snacks</td>
<td>6%</td>
</tr>
</tbody>
</table>


More Kids are Snacking

Portion Sizes Have Grown

- 90% of children over 8 do not consume recommended servings of vegetables.
- 75% consume less than recommended amounts for fruits.
- More than 50% of boys and 90% of girls do not consume enough dairy.
- 95% do not consume the recommended amount for whole grains.

http://www.eatright.org - Kids Eat Right report
Time parents spend with children is an important factor affecting children's health and nutrition.

<table>
<thead>
<tr>
<th>Percent of Kids Reporting Eating with Parents</th>
</tr>
</thead>
<tbody>
<tr>
<td>End of day</td>
</tr>
<tr>
<td>Parents and child</td>
</tr>
<tr>
<td>Parents and child at home</td>
</tr>
<tr>
<td>Parents and child at restaurant or fast food</td>
</tr>
<tr>
<td>Parents and child at home</td>
</tr>
</tbody>
</table>

Where are kid’s eating?

Percent of Kids Eating All, Most or Some of the Time...

<table>
<thead>
<tr>
<th>Activity</th>
<th>White Children</th>
<th>Hispanic Children</th>
<th>African-American Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watching TV</td>
<td>79%</td>
<td>77%</td>
<td>75%</td>
</tr>
<tr>
<td>Doing homework</td>
<td>74%</td>
<td>71%</td>
<td>72%</td>
</tr>
<tr>
<td>Playing computer games</td>
<td>74%</td>
<td>71%</td>
<td>71%</td>
</tr>
<tr>
<td>Talking on the phone</td>
<td>64%</td>
<td>66%</td>
<td>68%</td>
</tr>
<tr>
<td>Before going to bed</td>
<td>73%</td>
<td>74%</td>
<td>72%</td>
</tr>
</tbody>
</table>

Key Messages – Dietary Habits

• Most children are not meeting the requirements of the Dietary Guidelines for Americans 2010.
  – Too much added sugar
  – Too many snacks
  – Not enough fruits and vegetables
  – Not enough dairy
  – Not enough whole grains

• Eating with parents is important factor affecting children’s health and nutrition.

Ongoing Initiatives to Prevent Childhood Obesity

• Let’s Move!
  ![Let's Move!](image)

• White House task force on Childhood Obesity Prevention

• National Collaborative on Childhood Obesity Research

• We Can! (Ways to Enhance Children’s Activity & Nutrition)
  ![We Can!](image)

• Healthy Weight Commitment Foundation
  ![Healthy Weight Commitment Foundation](image)

Healthy Weight Commitment Foundation

• CEO-led organization
• National, multi-year effort designed to help reduce obesity—especially childhood obesity—by 2015.
• 190 retail, food, beverage, restaurant, sporting goods, and insurance companies, trade associations and NGOs
• Promotes ways to help people achieve and maintain through energy balance.
• It focuses on three critical areas:
  – Connecting with consumers in the marketplace
  – Empowering employees in the workplace
  – Schools (Energy Balance 4 Kids)

http://www.healthyweightcommit.org/
Where is the food industry today?

• 83% of foods advertised during children's television programming featured packaged snack foods, fast foods, and sweets.
• $3 billion is spent per year on food product packaging designed for children and youth.
• Food and beverage industry expenditures are more than 1000 times greater than California's "5 a day" programs which promote eating 5 fruits and vegetables a day for better health.
• Children see an average of one food ad for every five minutes of Saturday morning TV they watch.
• American children spend nearly $30 billion of their own money annually on junk foods.

Front-of-Package Labeling of Children's Food

• Nutritional content compared against nutritional criteria from the US Dietary Guidelines and the National Academies of Sciences.
• 84% of products studied did not meet basic nutritional standards.
  - In spite of the claims on the label, findings revealed:
    - More than half (57%) of products qualified as high sugar, 95% of products contained added sugar
    - More than half (53%) were low in fiber
    - More than half (53%) did not contain any fruits or vegetables
    - 29% of prepared foods were high in saturated fats
    - More than 1/3 (36%) of prepared foods were high in sodium
    - 23% contained artificial coloring

Parents want products that are healthy, delicious, and easy to prepare!

Percent of Parents Finding Health Attributes as "Very Important" When Buying Food

Kids want healthy foods to taste great

Percent of Children Who Would Eat Healthier If...

Products that can be eaten together as a family

Percent of Kids Reporting Eating with Parents
**Products that are convenient**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>While watching TV</td>
<td>80%</td>
</tr>
<tr>
<td>While doing homework</td>
<td>80%</td>
</tr>
<tr>
<td>While playing computer games</td>
<td>80%</td>
</tr>
<tr>
<td>While watching the phone</td>
<td>80%</td>
</tr>
<tr>
<td>Before going to bed</td>
<td>80%</td>
</tr>
</tbody>
</table>

*Statistically significant differences by race, p < 0.05
**Statistically significant differences by race, p < 0.01

Source: USDA Family Nutrition and Physical Activity Survey, 2010

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**Questions to keep in mind when developing new products**

- Which meals does the family eat together?
- Who does the grocery shopping?
- What are the financial resources?
- What do children like to eat at meal-time?
- What are the usual snacks? Can they be improved?
- Are the foods the right portion size?
- Are we communicating the right messages on pack?
- Are we offering balanced nutrition?

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**Questions**

- **No childhood obesity**

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**What can industry do to help prevent childhood obesity?**

- Follow the Dietary Guidelines for Americans by making products:
  - Reduce added sugars
  - Reduce sodium
  - Lower saturated fats
  - Remove trans fats
  - Increase the amounts of fruits, vegetables and dairy used
  - Decrease portion size
  - Increase the amount of reduced-calorie and nutrient rich foods and beverages
  - Increased plant-based proteins
- Reduce advertisement of less healthy foods
- Increase access to healthy foods by making them affordable
- Culturally diverse
- Creative packaging
  - Educational messages about nutrition and physical activity
  - Educational games
- Make a commitment
  - Corporate Social Responsibility (CSR)
  - Action plans

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**Summary**

- Childhood obesity is a global problem.
- Children don’t consume enough fruits, vegetables and whole grains.
- Children consume too much added sugar, sodium and solid fats.
- There are ongoing initiatives, but it’s not enough.
- Opportunities exist for the food and beverage industries to develop a variety of products of high nutritional quality, that taste good, look good, easy to access and are affordable.
- **Take Action!**

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**Questions**

- **No childhood obesity**