Childhood Obesity is Epidemic

- Obesity doubled in 20 years
  - Tripled in teens
  - Australia 1980-2000 obesity doubled
    - Morbid obesity increased four fold
- 80% of obese teens become obese adults
- If overweight at 8 and obese as teen, you have a 50% risk of morbid obesity as a young adult
- Morbid obesity responsible for 50% increase in total disability in 20 years
Global Pandemic

• Mexico to become most obese in the world
• Obesity in 5-19 yr olds: 41.8% in Mexico, 22.1% in Brazil, 22.0% in India, and 19.3% in Argentina
• Obesity quadrupled in children in Mexico and Brazil in the same time it doubled in the US
• US Mexican Americans twice as likely to be diabetic as same age non-hispanics (CDC)
• Type 2 diabetes to double by 2025 in Mexico
El medio ambiente en México
Teens high risk due to insulin resistance

- Sex steroids lead to insulin resistance
- TG/HDL ratio increases from 9-19 in males
- CRP and IL-6 increase with obesity in teens
- One multiethnic population 39% of moderately obese and 50% of severely obese children had metabolic syndrome
- Type II diabetes increased 10X in 10-19 year olds from 1982-1994
Sugar main source of increased calories

- Main source of increased calories, especially pop
- Increased sugar parallels increase in obesity in US
- Sugared drinks do not affect satiety
- Each additional daily pop increases risk of childhood obesity by 60%
- Sugar sweetened drinks “causative of diabetes”
- RCT: decrease in soda consumption in schools resulted in a significant decrease in obesity
- Fructose: 1940- 24 gm/d, current teen 70 gm/d
Metabolic effects of Fructose in the liver

- **FRUCTOSE**
  - Metabolized in the liver
  - Leads to increased generation of reactive oxygen species (ROS)
  - Impacts mitochondrial function
  - Affects lipid metabolism
  - Increases inflammation
  - Contributes to cellular death and metabolic dysfunction

- **Mitochondria**
  - Acetyl-CoA production
  - ATP generation
  - ROS formation

- **ER (Endoplasmic Reticulum)**
  - UPR (Unfolded Protein Response)
  - ROS generation

- **Peroxisome**
  - ROS generation

- **Insulin Resistance**
  - Increased fat deposition
  - Lipid droplet formation

- **Inflammatory Cytokines**
  - NADPH oxidase activation

- **Insulin Receptor**
  - Sensitivity changes
  - Regulation of metabolic functions
How to prevent the Metabolic Syndrome

• Reduction of substrate availability
  – Particularly lipogenic substrates like fructose
  – Improves insulin sensitivity, FLD, oxidative stress

• Reduction in hepatic substrate flux
  – Reduce the rate of absorption to match the liver metabolic capacity
  – Don’t drink sugar, more dietary fiber

• Increase substrate use in the mitochondria
  – less actyl-CoA released causing lipogenesis and IR
  – Exercise
Obese adults were more likely to be obese kids

- Population: patients in weight loss clinics in 2 countries
  - Analyzed BMI 30-39 v. 40-49 v. >50 kg/m²
  - BMI>50 associated with onset of overweight before age 15

- Found expected rates of metabolic morbidity in their population, with no protective adaptation associated with early onset.
Childhood obesity impacts health across the lifespan

• Reilly & Kelley 2011 review of the literature 2002-2010 looked at studies with childhood overweight/obesity as “exposure measures” and premature morbidity/mortality as outcomes

  – 4/5 studies looking at all-cause mortality found statistically significant risk increase.

  – 11/11 with cardiometabolic outcome measures (DM, HTN, CVD, stroke) found increased morbidity, hazard ratios from 1.1-5.1.

• Conclusion:”A relatively large and fairly consistent body of evidence now demonstrates that overweight and obesity in childhood and adolescence have adverse consequences on premature mortality and physical morbidity in adulthood”
Childhood obesity impacts health across the lifespan

- Metabolic syndrome in childhood predicts metabolic syndrome in adulthood
- Fatal and nonfatal heart disease events in adults is positively and linearly associated with BMI at 7 to 13 years of age for boys and 10 to 13 years of age for girls. The risk increased across the entire BMI distribution.
Evidence-Based Recommendations

Obesity Prevention: USPSTF

• 2007 insufficient evidence
• 2010 Screening children who are ≥6 years for obesity and offering or referring for comprehensive, intensive behavioral interventions to promote improvement in weight status (Grade B)
• Moderate to high-intensity programs include more than 25 hours of contact with the child and/or the family over a 6-month period targeting both diet and exercise
Cochrane Collaborative 2011

• clear evidence of effectiveness of obesity prevention in school aged children
• Short term school based program for 6-12 year olds: no further studies needed
• Promising findings for 0-5 year olds
  – Breast feeding encouragement
• More research needed for adolescents
U. Calgary School of Public Health

• Evidence Based Review: “prevention programs lead to short-term improvement relating to obesity and chronic disease prevention”

• Schools a “critical setting” for childhood obesity prevention
  – Most studies in 6 – 12 year olds in school setting
  – Physical activity critical to obesity prevention
  – Multiple programs using exercise alone were effective with childhood obesity reduction
Definitions of overweight and obesity in children

- Obesity: ≥ 95% BMI age 2-18
- Overweight: ≥ 85% BMI
- Based on 2000 CDC growth charts
- How can 17% be obese (>95%)?
- 2000 charts based on NHANES data 1963-80
- BMI link to CV risk factors is strong + sufficient
- NHANES 2010: 32% of 12-19 year had high BM
Treatment of Obesity USPSTF

- 6-12 year old: family based weight loss programs with parents as the focus - (Grade A)
- Effective at sustaining wt. loss over 10 years - (A)
- Adolescents: with the adolescent and peers as the focus: effective short term - (Grade A)
- Increasing fiber not effective - (Grade A)
- 7-12: reduction in sedentary activity improves wt. loss independent of physical activity - (Grade B)
- 6-18: exercise training improved weight loss, body composition, IR, BP and lipids - (Grade A)
Lipid Screening Recommendations

• 20.3% of adolescents with high BMI had increased lipids, 42.9% of obese teens
• USPSTF 2007 lipid screening: insufficient evidence
• AAP 2008: screen lipids with +FH or high BMI
• NHLBI and AAP 2011: Screen lipids in all children at 9 – 11 years and again at 17-21 years
  – Complex algorithm for behavioral and statin treatment
  – recommendation based on intermediate end points and poorly considers the risks of statins
• NEJM 2011: obese children who become non obese adults have no increased risk of HTN, DM or ASCVD as adults
My experience with the Olympia School District

• Organic salad bars in all schools popular
• Eliminated sugar added drinks and candy
  – Battle with the entrenched interests
  – Senate Bill 5436 confirmed what we had done but there has been backsliding since
• Vending machines and school lunches follow guidelines but school stores do not
Washington Senate Bill 5436

• Required each school district in Washington to establish a nutrition and physical fitness policy.

• A model policy was developed and posted along with recommendations for local adoption on the Washington State School Directors Association (WSSDA) website.

• Each district's board of directors was required to establish its own policy by August 1, 2005.
Nutrition & Physical Activity

Our Schools

In 2004, state legislation (SB 5436) mandated that all Washington school districts establish a comprehensive school health policy addressing nutrition and physical activity by August 2005.

Washington is ahead of the game – we are among the first states to make these important changes in schools. And we have required policy changes a year ahead of our federal government which requires these guidelines to be in place in 2006.

Wellness policies from all Washington school districts have been collected by Action for Healthy Kids Coalition. Policies can be found online at the Healthy Schools in Washington site. (External Site)

We know that many schools rely on revenue from vending machines and school stores to supplement activities for young people, and even equipment for physical education programs.
2007 legislation established goals to be achieved by 2010 including:

- ensure that only healthful foods meeting minimum nutritional standards are available in schools;
- provide at least one hundred fifty minutes of quality physical education to students in grades 1-8;
- establish school health advisory committees in all districts.
- The law creates a legislative task force on comprehensive school health reform.
Washington Senate Bill 5093

• Minimum Nutrition Standards for foods available outside the USDA School Meal Program:
  – Not more than 35% of calories from fat
  – Not more than 10% of calories from saturated fat
  – Not more than 35% of total weight or 15 grams per food item from sugar

• Schools not meeting Washington SB 5093 Goals
  – UW Center for Public Health Nutrition
School policies not meeting SB 5093
UW Center for Public Health Nutrition

• About a third of the policies had specific fat limits for food.*

• Approximately 1 in 10 policies had specific fat limits for beverages, and 2 in 10 limited the fat content of milk.*

• About a fifth of policies specified sugar limits for foods.*

• About a fifth of policies specified sugar limits for beverages.*

• *These limits did not necessarily meet the 2010 goals.
Relevant federal law

• National legislation (Public Law 108-265)* required that all school districts participating in the USDA national school lunch and/or school breakfast program develop a Wellness Policy by the start of the 2006-07 school year.

• Federal funding for meals is contingent on compliance
Relevant federal law

The Wellness Policies were required to include the following items:

1. Goals for nutrition education, physical activity and other school-based activities that are designed to promote student wellness

2. Nutrition guidelines selected for all foods available on each school campus during the school day with the objectives of promoting student health and reducing childhood obesity

3. Assurance that the guidelines for reimbursable school meals are not less restrictive than those set by the USDA

4. A plan for measuring implementation
Checking up on schools

• http://healthyschools.ospi.k12.wa.us/waschool/wellness_policies/wa_policies.html
Washington School District Wellness Policies

It is our goal to keep these policies and procedures current. Please email us if you see errors, omissions or know of changes.

Aachen: Nutrition and Physical Fitness Policy
Adna: Nutrition and Physical Fitness Policy and Procedure
Almira: Nutrition and Physical Fitness Policy and Procedure
Anacortes: Nutrition and Physical Fitness Policy and Procedure
Arlington: Nutrition Policy and Physical Fitness Policy
Asotin-Anatone: Nutrition and Physical Fitness Policy
Auburn: Nutrition and Physical Fitness Policy
Bainbridge Island: Nutrition and Physical Fitness

See how Washington's districts have addressed:

Classroom Parties and Celebrations (PDF)
Commercial Advertising or Marketing of Foods and Beverages (PDF)
Food or Physical Activity as a Reward or Punishment (PDF)
Nutrition Standards for Fat (PDF)
Nutrition Standards for Sodium (PDF)
Nutrition Standards for Sugar in Foods (PDF)
The Auburn School District ... board supports emphasis on nutrition as well as physical activity at all grade levels. Therefore, it is the policy of the board to:

A. Provide students access to nutritious food;
B. Provide opportunities for physical activity and developmentally appropriate exercise; and
C. Provide accurate information related to these topics.

The district shall develop and implement a comprehensive nutrition program consistent with state and federal requirements.

Nutrition, health, and fitness topics shall be integrated within the ... curriculum taught at every grade level, kindergarten through grade 12, and coordinated with the district’s nutrition and food services operation.

The district shall take a proactive effort to encourage students to make nutritious food choices. The superintendent shall ensure that:

A. A variety of healthy food choices are available whenever food is sold or served on district property or at district-sponsored events;
B. Schools shall regulate the sale or serving of foods or snacks high in fat, sodium or added sugars; and
C. Nutritious meals served by the school nutrition and food services operation complies with state and federal law.
Nutrition and Physical Fitness
Children who eat well-balanced meals and are healthy are more likely to learn in the classroom. The board supports increased emphasis on nutrition as well as physical activity at all grade levels to enhance the well-being of our district’s youth. Therefore, it is the policy of the board to:
A. Provide students access to nutritious food;
B. Provide opportunities for physical activity and developmentally appropriate exercise; and
C. Provide accurate information related to these topics.

The District shall develop and implement a comprehensive district-wide nutrition program consistent with state and federal requirements for districts sponsoring the National School Lunch Program and the School Breakfast Program. ... Nutrition, health and fitness topics shall be integrated within the sequential, comprehensive health education curriculum taught at every grade level, kindergarten through grade 8, and coordinated with the district’s nutrition and food services program.
The District shall take a proactive effort to encourage students to make nutritious food choices and ensure that:
D. A variety of healthy food choices are available whenever food is sold or served on district property during school hours;
E. Schools shall regulate the sale or serving of foods or snacks high in fat, sodium or added sugars; and
F. Nutritious meals served by the school nutrition and food services operation complies with state and federal law.
Olympia School District

KIWI Class Leaders: A spotlight on inspiring and successful school food programs. By Anne Flocken

Could it really be that in order to improve school food, all you need is cooperation between parents and school officials? That’s what you’ll hear if you speak to Paul Flock, supervisor of child nutrition for the Olympia School District organization in Olympia, Washington, which made a healthy turn in 2002 after Flock met with parents from the district’s Lincoln Elementary School. The parents asked for limited processed food, organic produce and a significant reduction in sugar.

Determined to meet their requests and knowing the district had no additional funds to support new programs, Flock drew up a self-sufficient plan. In addition to utilizing parent volunteers, Flock tapped into Washington’s Farm-to-Cafeteria program, a state initiative that puts schools in touch with local farmers in order to buy organic produce.

Today, all 18 schools in the Olympia district have a nutritious lunch program. Students can supplement their lunch with an organic salad from the bar or create an entire meal from the line (there are plenty of protein options). One teacher confessed to Flock that she was eating lunch at school for the first time in 23 years, thanks to the new salad bar. Organic fruit is there for the picking, and sodas and sugar-sweetened desserts have been banned.

The new food program costs the same as the traditional program did five years ago. Flock says he “had to juggle things around to make it cost-effective.” His number-one strategy: tapping local vendors. By working with Olympia-based Bagel Brothers, for example, the middle- and high-school students now enjoy a pizza that has no trans fat or hydrogenated oil and derives less than 30% of its calories from fat.

Want to institute similar changes at your child’s school? Flock has these tips for fostering cooperation between administrators and parents.

1. Don’t be scared to call those in charge. They’re people (and parents) just like you.
2. Be tenacious. If one official turns you down, go to another.
3. Assemble a group of like-minded parents and write down specific examples of what you want.
4. Find another district that’s already doing what you’re suggesting, learn how it achieved its goals and apply its model to your own proposal.

Class Leaders: Olympia School District
Stop the Pop 2012

• The Importance of Healthy Food and Drink Choices for Our Children
The Problem

• Childhood and adolescent obesity has important consequences later in life
• Childhood and adolescent obesity is on the rise
• Childhood and adolescent obesity is preventable, and has been linked to sugar-sweetened drinks
Obesity does not always start in adulthood.

Overweight children are far more likely to become overweight adults than are children who maintain normal weight through adolescence.
Childhood and adolescent obesity has important consequences later in life.

![Diagram showing complications of childhood obesity](image)

Figure 2: Complications of childhood obesity

Forest Plots Showing Relative Risks of High-Risk Outcomes in Four Cohorts.

<table>
<thead>
<tr>
<th>Cohort</th>
<th>Group II</th>
<th>Group I</th>
<th>Relative Risk (95% CI)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>no. of subjects with ≥1 high-risk outcomes/total no.</td>
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<tr>
<td>CDAH</td>
<td>34/122</td>
<td>643/1852</td>
<td>0.81 (0.62–1.11)</td>
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<tr>
<td>YFS</td>
<td>37/93</td>
<td>899/2107</td>
<td>0.91 (0.72–1.24)</td>
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<tr>
<td>BOGA</td>
<td>8/21</td>
<td>157/340</td>
<td>0.83 (0.45–1.46)</td>
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<tr>
<td>MUSC</td>
<td>16/38</td>
<td>198/443</td>
<td>0.94 (0.65–1.31)</td>
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<tr>
<td>Meta-analysis</td>
<td>95/274</td>
<td>1897/4742</td>
<td>0.88 (0.75–1.04)</td>
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</table>

<table>
<thead>
<tr>
<th>Cohort</th>
<th>Group III</th>
<th>Group I</th>
<th>Relative Risk (95% CI)</th>
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<tr>
<td></td>
<td>no. of subjects with ≥1 high-risk outcomes/total no.</td>
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<td></td>
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<tr>
<td>CDAH</td>
<td>77/139</td>
<td>643/1852</td>
<td>1.61 (1.37–1.87)</td>
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<tr>
<td>YFS</td>
<td>93/125</td>
<td>899/2107</td>
<td>1.75 (1.57–1.95)</td>
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<td>BOGA</td>
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<td>157/340</td>
<td>1.68 (1.43–1.90)</td>
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<tr>
<td>MUSC</td>
<td>79/110</td>
<td>198/443</td>
<td>1.62 (1.39–1.87)</td>
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<tr>
<td>Meta-analysis</td>
<td>345/500</td>
<td>1897/4742</td>
<td>1.67 (1.55–1.79)</td>
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<table>
<thead>
<tr>
<th>Cohort</th>
<th>Group IV</th>
<th>Group I</th>
<th>Relative Risk (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>no. of subjects with ≥1 high-risk outcomes/total no.</td>
<td></td>
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<tr>
<td>CDAH</td>
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<td>643/1852</td>
<td>1.74 (1.53–1.95)</td>
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<tr>
<td>YFS</td>
<td>236/315</td>
<td>899/2107</td>
<td>1.77 (1.63–1.91)</td>
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<tr>
<td>BOGA</td>
<td>101/148</td>
<td>157/340</td>
<td>1.48 (1.28–1.74)</td>
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<td>MUSC</td>
<td>100/131</td>
<td>198/443</td>
<td>1.71 (1.48–1.95)</td>
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<tr>
<td>Meta-analysis</td>
<td>568/812</td>
<td>1897/4742</td>
<td>1.70 (1.59–1.81)</td>
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</table>

Group I: Were neither overweight or obese as children and were not obese adults

Group II: Were overweight or obese as children but not overweight adults

Group III: Were overweight or obese as children and adults

Group IV: Were not overweight or obese as children but were obese as adults

Figure 1. Trends in obesity among children and adolescents: United States, 1963–2008

NOTE: Obesity is defined as body mass index (BMI) greater than or equal to sex- and age-specific 95th percentile from the 2000 CDC Growth Charts.
In 1990, among states participating in the Behavioral Risk Factor Surveillance System, 10 states had a prevalence of obesity less than 10% and no state had prevalence equal to or greater than 15%.

By 2000, no state had a prevalence of obesity less than 10%, 23 states had a prevalence between 20–24%, and no state had prevalence equal to or greater than 25%.

In 2010, no state had a prevalence of obesity less than 20%. Thirty-six states had a prevalence equal to or greater than 25%; 12 of these states (Alabama, Arkansas, Kentucky, Louisiana, Michigan, Mississippi, Missouri, Oklahoma, South Carolina, Tennessee, Texas, and West Virginia) had a prevalence equal to or greater than 30%.
Obesity Trends* Among U.S. Adults

BRFSS, 1985

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

BRFSS, 1986

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 1987

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

BRFSS, 1988

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 1989
(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults

BRFSS, 1990

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 1991
(*BMI ≥30, or ~30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults

BRFSS, 1992

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

BRFSS, 1993

(*BMI ≥ 30, or ~ 30 lbs. overweight for 5’ 4” person)
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)

No Data           <10%          10%–14%     15%–19%
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)*

<table>
<thead>
<tr>
<th>Percentage Range</th>
<th>States</th>
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<tr>
<td>No Data</td>
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<tr>
<td>&lt;10%</td>
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<tr>
<td>10%–14%</td>
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<td>15%–19%</td>
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<td>20%–24%</td>
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</tr>
<tr>
<td>25%–29%</td>
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</tr>
<tr>
<td>≥30%</td>
<td></td>
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</tbody>
</table>
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
(*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)
Portion distortion contributes

- Over the last twenty years, almost every food portion has swollen.

210 Calories  
2.4 ounces

610 Calories  
6.9 ounces
Childhood and adolescent obesity is preventable.
Childhood and adolescent obesity is linked to sugar-sweetened drinks

- A 1997 study of Massachusetts 6th and 7th graders looked at the relationship between sweetened drinks and obesity.

- Each daily serving increased a child’s odds of becoming obese by a factor of 1.6 or 60%.

- An increase in the number of daily servings of sweetened drinks over the 19 month study was predictive of increased BMI.

- Increased servings at baseline predicted higher baseline BMI.

# A common sense approach to prevention and treatment of childhood obesity

<table>
<thead>
<tr>
<th>Home</th>
<th>Set aside time for</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Healthy meals</td>
</tr>
<tr>
<td></td>
<td>- Physical activity</td>
</tr>
<tr>
<td></td>
<td>Limit television viewing.</td>
</tr>
<tr>
<td>School</td>
<td>Fund mandatory physical education.</td>
</tr>
<tr>
<td></td>
<td>Establish stricter standards for school lunch programmes.</td>
</tr>
<tr>
<td></td>
<td>Eliminate unhealthy foods—eg, soft drinks and candy from vending machines.</td>
</tr>
<tr>
<td></td>
<td>Provide healthy snacks through concession stands and vending machines.</td>
</tr>
<tr>
<td>Urban design</td>
<td>Protect open spaces.</td>
</tr>
<tr>
<td></td>
<td>Build pavements (sidewalks), bike paths, parks, playgrounds, and pedestrian zones</td>
</tr>
</tbody>
</table>

| Health care           | Improve insurance coverage for effective obesity treatment. |

| Marketing and media   | Consider a tax on fast food and soft drinks. |
|                       | Subsidise nutritious foods—eg, fruits and vegetables. |
|                       | Require nutrition labels on fast-food packaging. |
|                       | Prohibit food advertisement and marketing directed at children. |
|                       | Increase funding for public-health campaigns for obesity prevention. |

| Politics              | Regulate political contributions from the food industry |

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An American Academy of Pediatrics policy statement in the January 2004 issue of Pediatrics calls on schools to stop selling soft drinks and start providing healthier alternatives such as real fruit juice and water. Easy access to sugary foods and drinks is part of the obesity problem in the United States. Sugared soft drinks also contribute to dental cavities and enamel erosion.

AAP advises doctors to educate not only their patients but also school administrators about how sugared soft drinks can impact health. It also notes that the rise in children's soft drink consumption is leading to less milk consumption, which could jeopardize the formation of maximal peak bone mass at a critical time for such development.

In 2004, the WAFP urged its members to take the lead in their communities in fighting this growing problem.

Senate Bill 5436 and 5093 offered school boards an opportunity to join us in this cause, and work to improve the health of our children.
The Law

- Washington Senate Bill 5436 required every school district in the state to establish a comprehensive school health policy that addresses the nutritional quality of food sold at schools, and the availability and quality of health, nutrition, and physical education and fitness curricula.

- Washington Senate Bill 5093: criteria for policies
  - ensure that only healthful foods meeting minimum nutritional standards are available in schools;
  - provide at least one hundred fifty minutes of quality physical education to students in grades 1-8;
  - establish school health advisory committees in all districts.
Policy Implications

• Childhood and adolescent obesity has important consequences later in life
• Childhood and adolescent obesity is on the rise
• Childhood and adolescent obesity is preventable, and has been especially linked to sugar-sweetened drinks
Policy Implications

- We can move to eliminate a health hazard from our schools.
- We can model behaviors that value health and nutrition.
- We can shape and guide choice.
- As a physician speaking to the health of our community, I am asking you to enact a policy that eliminates or severely limits access to sugar-sweetened drinks in our schools.
Thank you.