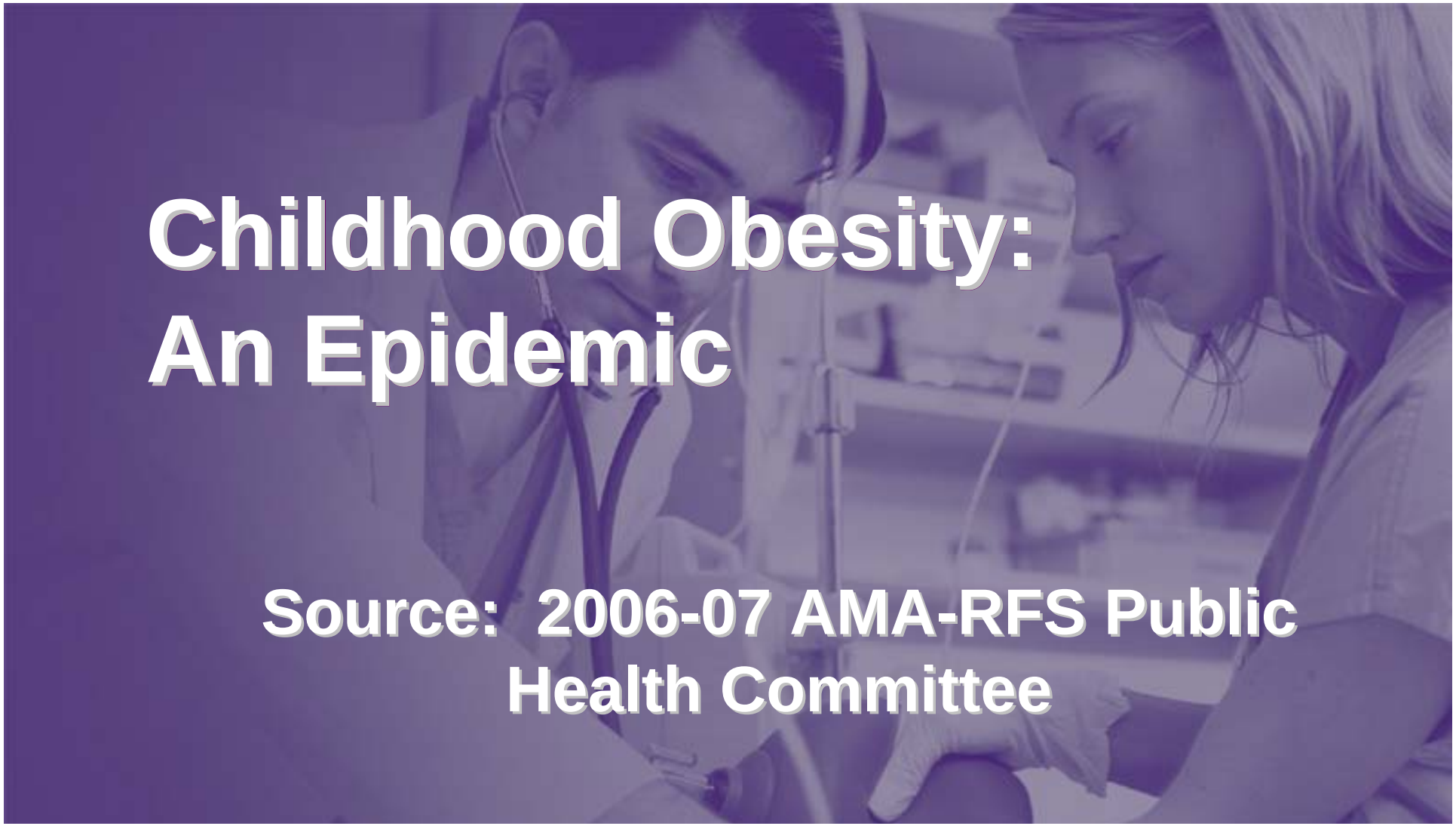


Childhood Obesity: An Epidemic

Source: 2006-07 AMA-RFS Public Health Committee

AMA

TOGETHER WE ARE STRONGER

Outline of Presentation:

- Introduction
- Prevalence
- Public health impact
- Individual health impact
- Some solutions
- What residents can do

What is Obesity?

- Obesity is a chronic, metabolic disease caused by multiple and complex factors, including increased calorie intake, decreased physical activity and genetic influences.

- An adult who has a BMI between 25 and 29.9 is considered overweight. An adult who has a BMI of 30 or higher is considered obese.

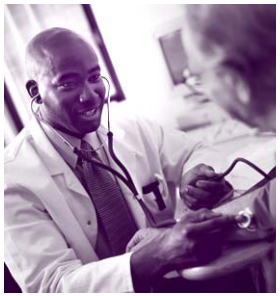
Definition In Children:

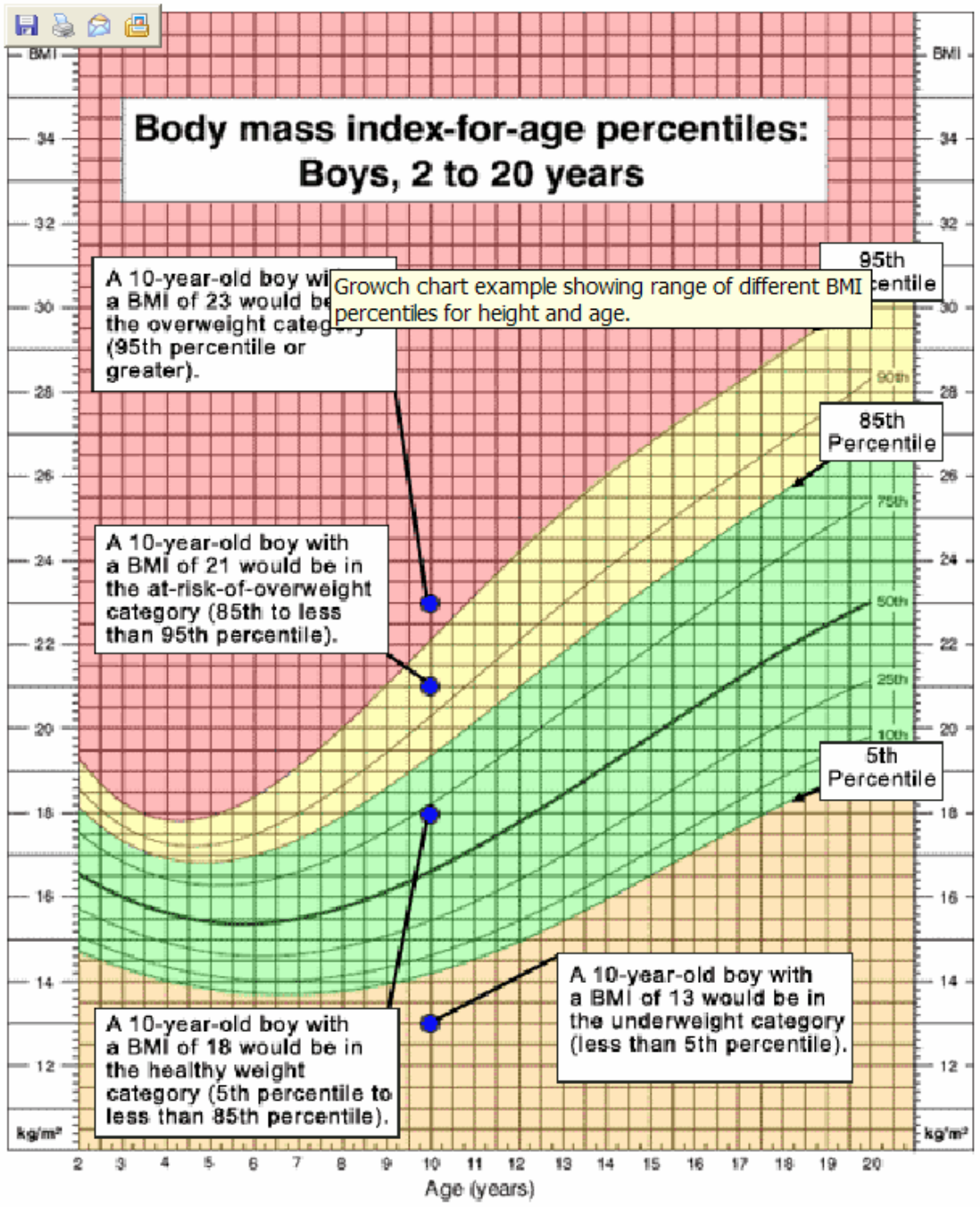
- For children and teens, BMI ranges above a normal weight have different labels ("at risk of overweight" and "overweight"). Additionally, BMI ranges for children and teens are defined so that they take into account normal differences in body fat between boys and girls and differences in body fat at various ages.

- At risk for overweight and overweight for children and adolescents are defined as being at or above the 85th and 95th percentile of Body Mass Index (BMI) respectively.

Weight status category	Percentile range
Underweight	Less than the 5th percentile
Healthy weight	5th percentile to less than the 85th percentile
At risk of overweight	85th to less than the 95th percentile
Overweight	Equal to or greater than the 95th percentile

Source: CDC -- http://www.cdc.gov/nccdphp/dnpa/obesity/childhood/prevalence.htm





The Centers for Disease Control (CDC), the supplier of national growth charts and prevalence data, avoids using the word "obesity" for children and adolescents

Source: CDC -- http://www.cdc.gov/nccdphp/dnpa/obesity/childhood/prevalence.htm

The 95th Percentile:

- corresponds to a BMI of 30, which is the marker for obesity in adults. The 85th percentile corresponds to the overweight reference point for adults, which is a BMI of 25.
- is recommended as a marker for children and adolescents to have an in-depth medical assessment.
- identifies children that are very likely to have obesity persist into adulthood.
- is associated with elevated blood pressure and lipids in older adolescents, and increases their risk of diseases.
- is a criteria for more aggressive treatment.
- is a criteria in clinical research trials of childhood obesity treatments.

Source: American Obesity Association -- http://www.obesity.org/subs/childhood/prevalence.shtml

Important to rule out other causes:

Endogenous Causes of Childhood Obesity

Hormonal causes	Diagnostic clues
Hypothyroidism	Increased TSH, decreased thyroxine (T_4) levels
Hypercortisolism	Abnormal dexamethasone suppression test; increased 24-hour free urinary cortisol level
Primary hyperinsulinism	Increased plasma insulin, increased C-peptide levels
Pseudohypoparathyroidism	Hypocalcemia, hyperphosphatemia, increased PTH level
Acquired hypothalamic	Presence of hypothalamic tumor, infection, syndrome trauma, vascular lesion

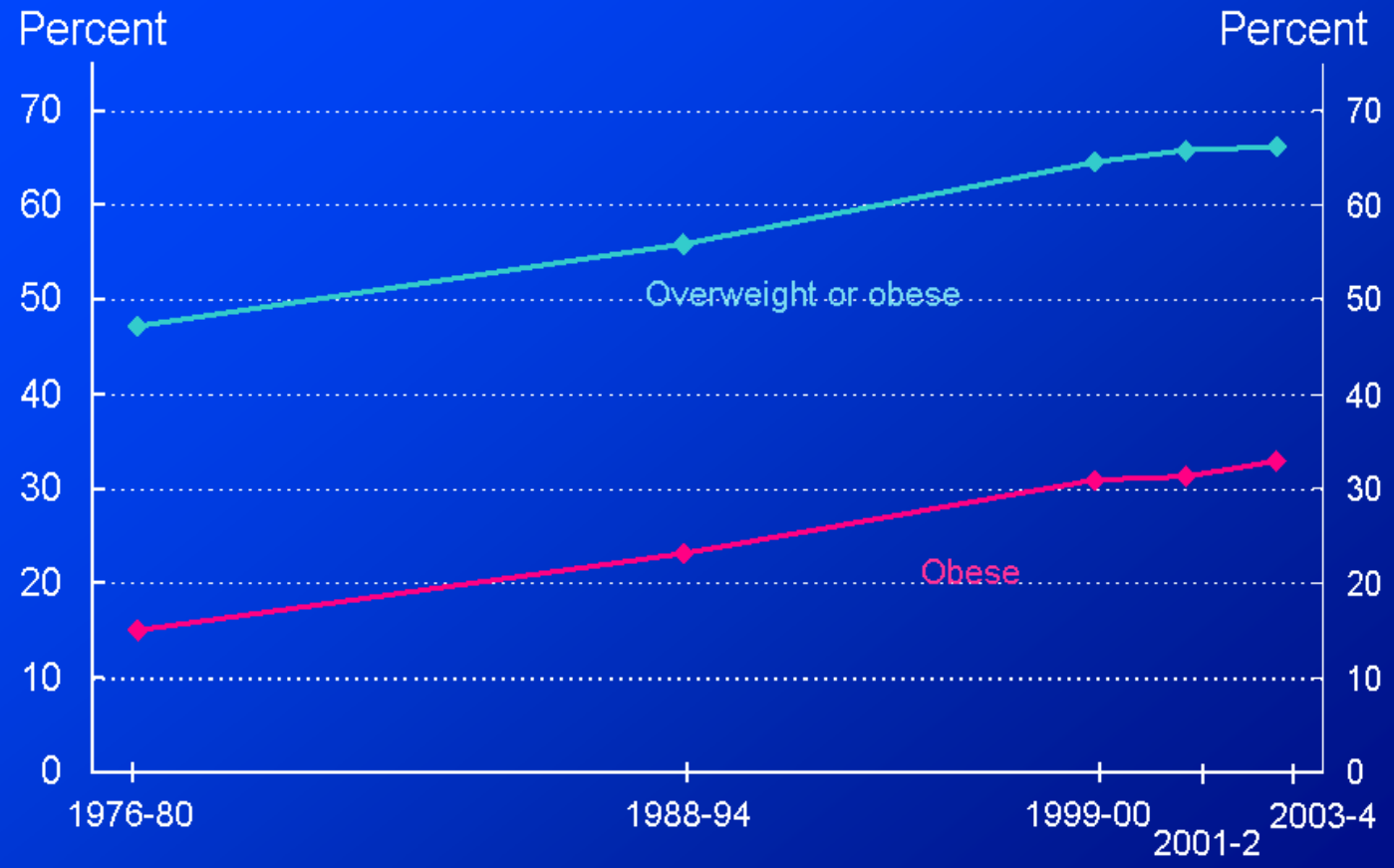
AMA

Source: American Academy of Family Physicians -- http://www.aafp.org/afp/990215ap/861.html

How Prevalent Is It?

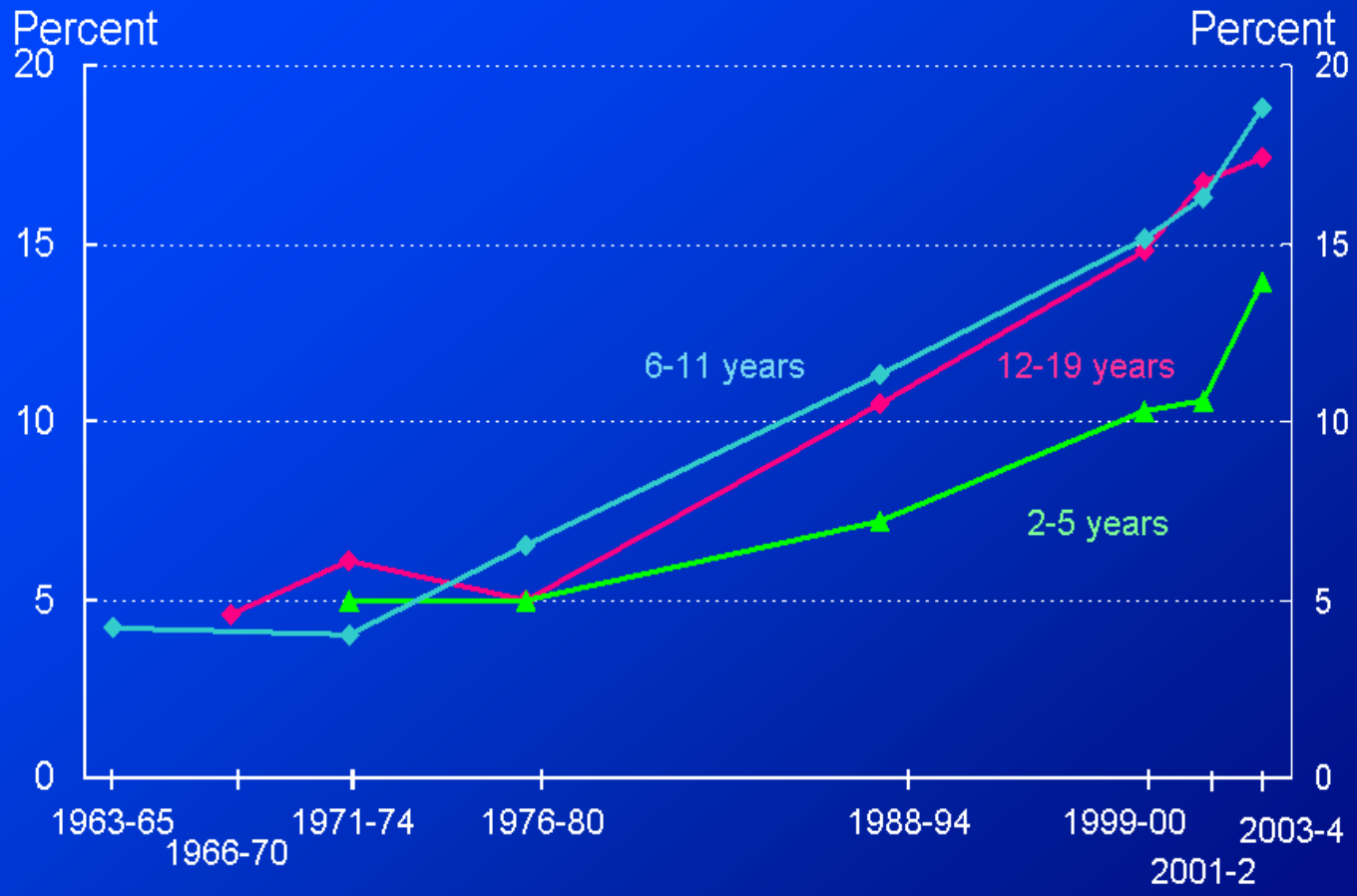
- 30 percent of adults 20 years of age and over – over 60 million people -- had a BMI of 30 or greater – in 1999-2002 compared with 23 percent in 1994.
- Among children and teens ages 6-19, 16 percent (over 9 million) are overweight according to the 1999-2002 data, or triple what the proportion was in 1980.
- The percent of children who are at risk of overweight or overweight continues to increase.

Figure 2. Trends in Adult Overweight and Obesity, ages 20-74 years



Note: Age-adjusted by the direct method to the year 2000 US Bureau of the Census estimates using the age groups 20-39, 40-59 and 60-74 years. Overweight defined as BMI>=25; Obesity defined as BMI>=30.

Trends in Child and Adolescent Overweight



Note: Overweight is defined as BMI >= gender- and weight-specific 95th percentile from the 2000 CDC Growth Charts.
Source: National Health Examination Surveys II (ages 6-11) and III (ages 12-17), National Health and Nutrition Examination Surveys I, II, III and 1999-2004, NCHS, CDC.

Prevalence of Overweight[1] Among U.S. Children and Adolescents (Aged 2–19 Years)

	Survey Periods			
	NHANES I 1971–1974	NHANES II 1976–1980	NHANES III 1988–1994	NHANES 2003–2004
Ages 2 through 5	5%	5%	7.2%	13.9%
Ages 6 through 11	4%	6.5%	11.3%	18.8%
Ages 12 through 19	6.1%	5%	10.5%	17.4%

[1]Sex-and age-specific BMI ≥ 95th percentile based on the CDC growth charts

Sources:

Ogden CL, Flegal KM, Carroll MD, Johnson CL. Prevalence and trends in overweight among U.S. children and adolescents, 1999–2000. *JAMA* 2002;288:1728–1732.

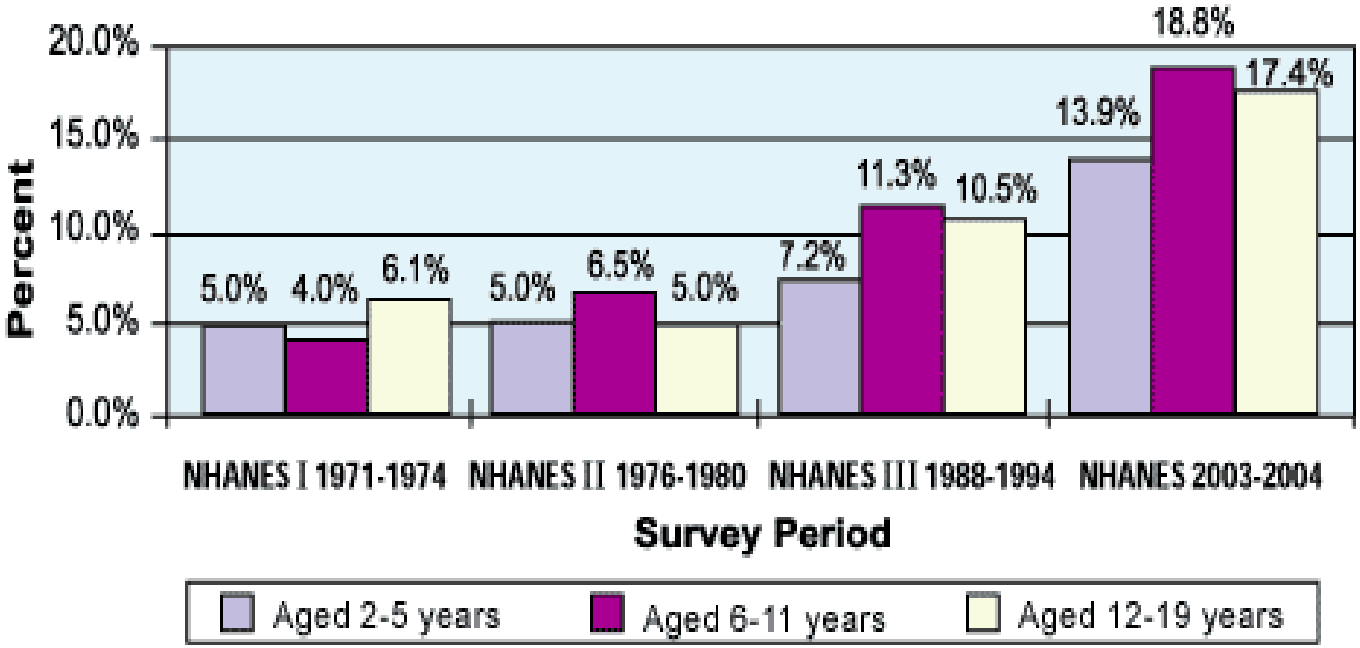
Hedley AA, Ogden CL, Johnson CL, Carroll MD, Curtin LR, Flegal KM. Prevalence of overweight and obesity among US children, adolescents, and adults, 1999–2002. *JAMA* 2004;291:2847–2850.

Ogden CL, Carroll MD, Curtin LR, McDowell MA, Tabak CJ, Flegal KM. Prevalence of overweight and obesity in the United States, 1999–2004. *JAMA* 2006;295:1549–1555.

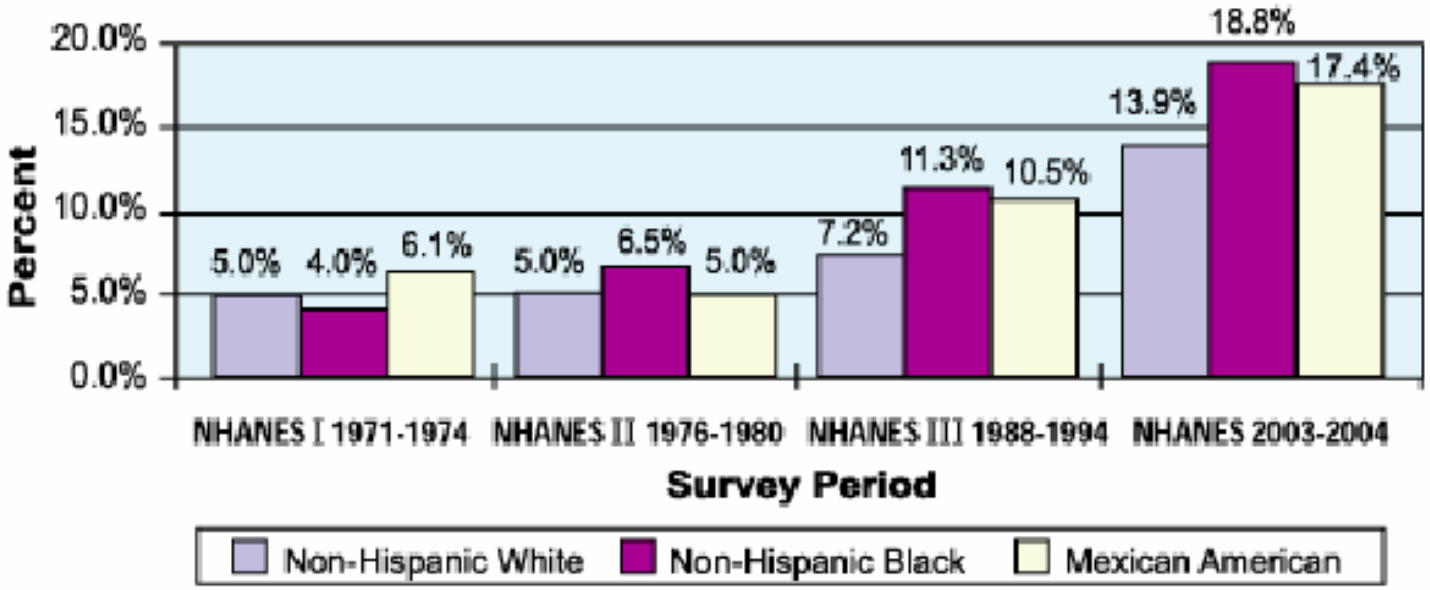
Source: CDC -- http://www.cdc.gov/nccdphp/dnpa/obesity/childhood/prevalence.htm

Prevalence of Overweight* Among U.S. Children and Adolescents (Aged 2 –19 Years)

National Health and Nutrition Examination Surveys



Prevalence of Overweight[1] Among U.S. Children and Adolescents (Aged 2 –19 Years) National Health and Nutrition Examination Surveys

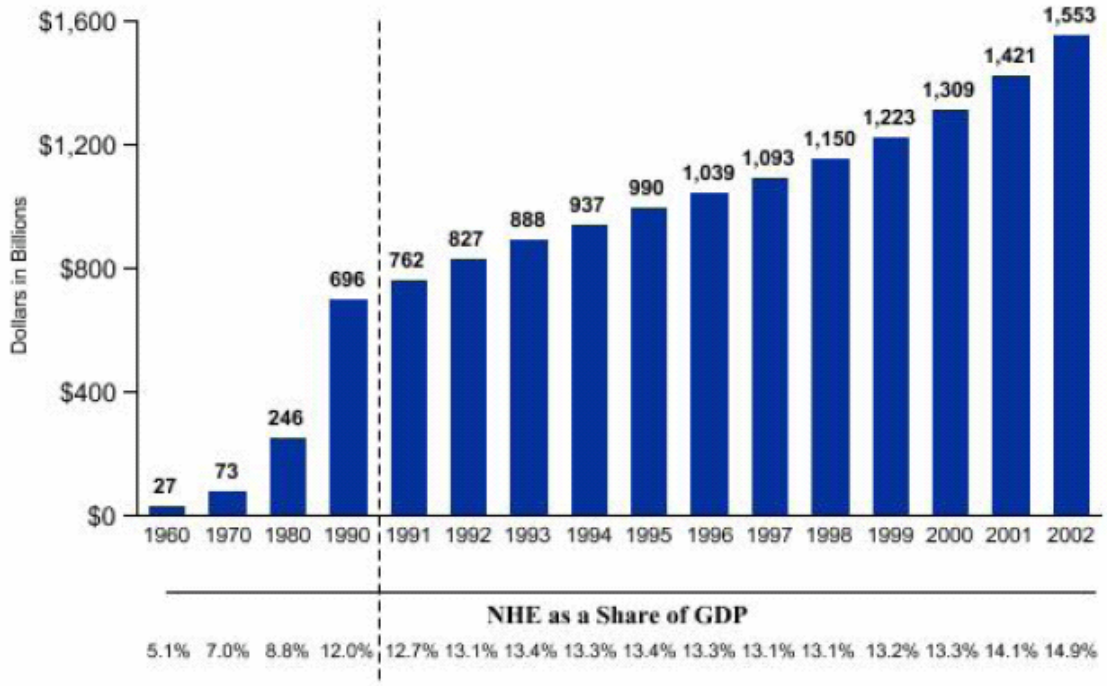


[1]Sex-and age-specific BMI ≥ 95th percentile based on the CDC growth charts.

Source: CDC -- http://www.cdc.gov/nccdphp/dnpa/obesity/childhood/prevalence.htm

Impact on Health Expenditures:

Exhibit 1.1: National Health Expenditures and Their Share of Gross Domestic Product, 1960-2002
Expenditures in the United States (U.S.) on health care have nearly doubled (+88%) since 1992 and, at nearly $1.6 trillion in 2002, are more than 6 times the $246 billion spent in 1980. The approximately $1.6 trillion in national health expenditures (NHE) in 2002 represents 14.9% of the Gross Domestic Product (GDP), almost 3 times larger than the industry's share in 1960. About half of this increase occurred from 1980 to 1992, when health as a share of the GDP rose from 8.8% to 13.1%. Health care as a share of GDP remained roughly constant during most of the 1990s, and began to rise fairly rapidly after 2000.



Source: Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group, at http://www.cms.gov/statistics/nhe/default.asp (2002 National Health Care Expenditures Data Files for Downloading, file nhegdp02.zip).

Obesity Related Diseases:

- 80% of type II diabetes related to obesity
- 70% of Cardiovascular disease related to obesity
- 42% breast and colon cancer diagnosed among obese individuals
- 30% of gall bladder surgery related to obesity
- 26% of obese people having high blood pressure

http://www.winltdusa.com/about/infocenter/healthnews/articles/obesestats.htm

Obesity Related Disease Costs:

- Type II Diabetes ($63.14 Billion)
- Osteoporosis ($17.2 Billion)
- Hypertension ($3.23 Billion)
- Heart Disease ($6.99 Billion)
- Post-menopausal breast cancer ($2.32 Billion)
- Colon Cancer ($2.78 Billion)
- Endometrial Cancer ($790 Million)

AMA

http://www.winltdusa.com/about/infocenter/healthnews/articles/obesestats.htm

Obese Child, Obese Adult:

- **Obesity in childhood leads to obesity in adulthood**
  - Overweight or obese children are more likely to remain obese as adolescents and become overweight or obese adults. Adolescence appears to be a sensitive period for the development of obesity – about 80 per cent of obese adolescents will become obese adults.
  - Studies suggest that being obese as a child or adolescent increases the risk of a range of diseases and disorders in adulthood, regardless of whether the adult is obese or not.

TABLE 1: HEALTH RISKS ASSOCIATED WITH OBESITY

Obesity is Associated with an Increased Risk of:	
• premature death • type 2 diabetes • heart disease • stroke • hypertension • gallbladder disease • osteoarthritis (degeneration of cartilage and bone in joints) • sleep apnea • asthma • breathing problems • cancer (endometrial, colon, kidney, gallbladder, and postmenopausal breast cancer)	• high blood cholesterol • complications of pregnancy • menstrual irregularities • hirsutism (presence of excess body and facial hair) • stress incontinence (urine leakage caused by weak pelvic-floor muscles) • increased surgical risk • psychological disorders such as depression • psychological difficulties due to social stigmatization

Adapted from www.niddk.nih.gov/health/nutrit/pubs/statobes.htm[26]

Potential health problems for obese children in particular include:

- Type 2 diabetes
- Cardiomyopathy
- Pancreatitis
- Orthopedic disorders (problems with foot structure)
- Respiratory disorders such as upper airway obstruction and chest wall restriction, resulting in sleep apnea
- Reflux, gallstones and other stomach conditions
- Eating disorders such as bulimia.
- Skin fungal infections, acanthosis nigracans, hepatic steatosis and steato-hepatitis, pseudotumor cerebri etc.
- **Social problems for obese children and adolescents**
  - Obesity has a major impact on how a child feels about themselves and how they interact with others.
- ***Metabolic Syndrome***

Psychological Impact:

- While children do not experience as many medical issues related to obesity as adults, obesity during childhood can be **emotionally scarring**.
- Children who experience psychological abuse from their peers often develop extremely **low self-esteem**, which may eventually evolve into depression. Obese children often feel **isolated and lonely**.
- Because of this alienation, they often may fail to develop **key life and social skills**, which can negatively-affect their lives well into adolescence, or even adulthood.
- A child's confidence is significantly affected by **self-image and the perception of peers**. The way an insecure child feels about herself can be entirely determined by her concept of what those around her think.
- The bottom line: Even if a child seems to be physically healthy in spite of being overweight, the **emotional and mental impact** can be devastating.

Why are children obese?

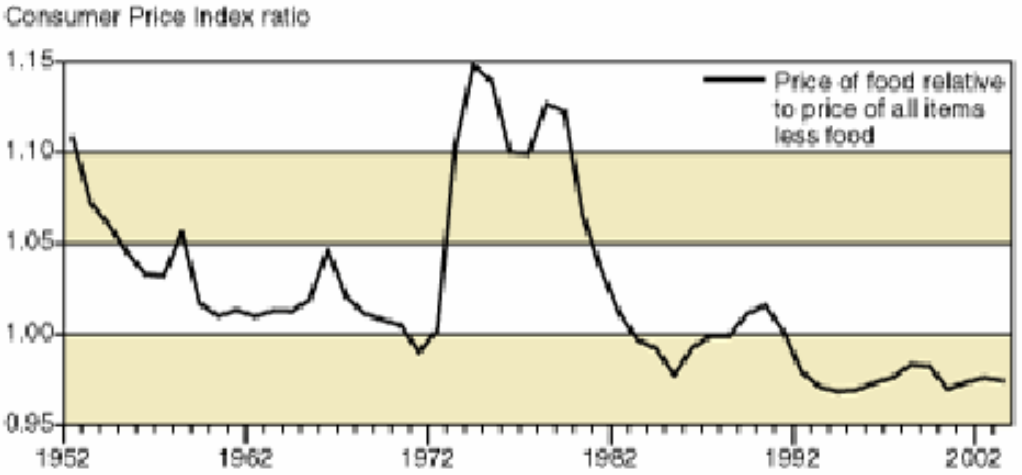
Multifactorial… and changing society has contributed to obesity-

- The overall cost of food has gone down.
- More food is prepared away from home.
- Energy-dense foods and drinks are more readily available.
- Portion sizes of energy-dense foods have increased.
- Marketing of energy-dense foods and drinks has increased.
- The use of private transport has increased.
- The number of two-income families has increased.
- The time spent in paid employment has increased.
- The role of physical education in the school curriculum has reduced.

Genetic Factors

- The genetic characteristics of the human population have not changed in the last three decades, but the prevalence of overweight has tripled among school-aged children during that time

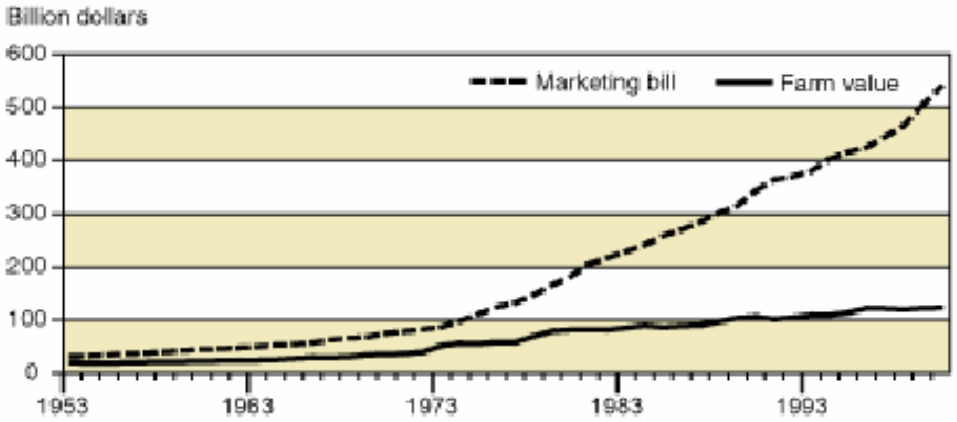
Relative food price has been declining ...



Note: The ratio of Consumer Price Index for food to the Consumer Price Index for all items less food (base period 1982-84).

Source: U.S. Department of Labor, Bureau of Labor Statistics.

...but more dramatically, an increasing share of consumer food expenditure is going toward the marketing bill rather than the farm value of food



Source: ERS Briefing Room on Food Marketing and Price Spreads, www.ers.usda.gov/Briefing/FoodPriceSpreads

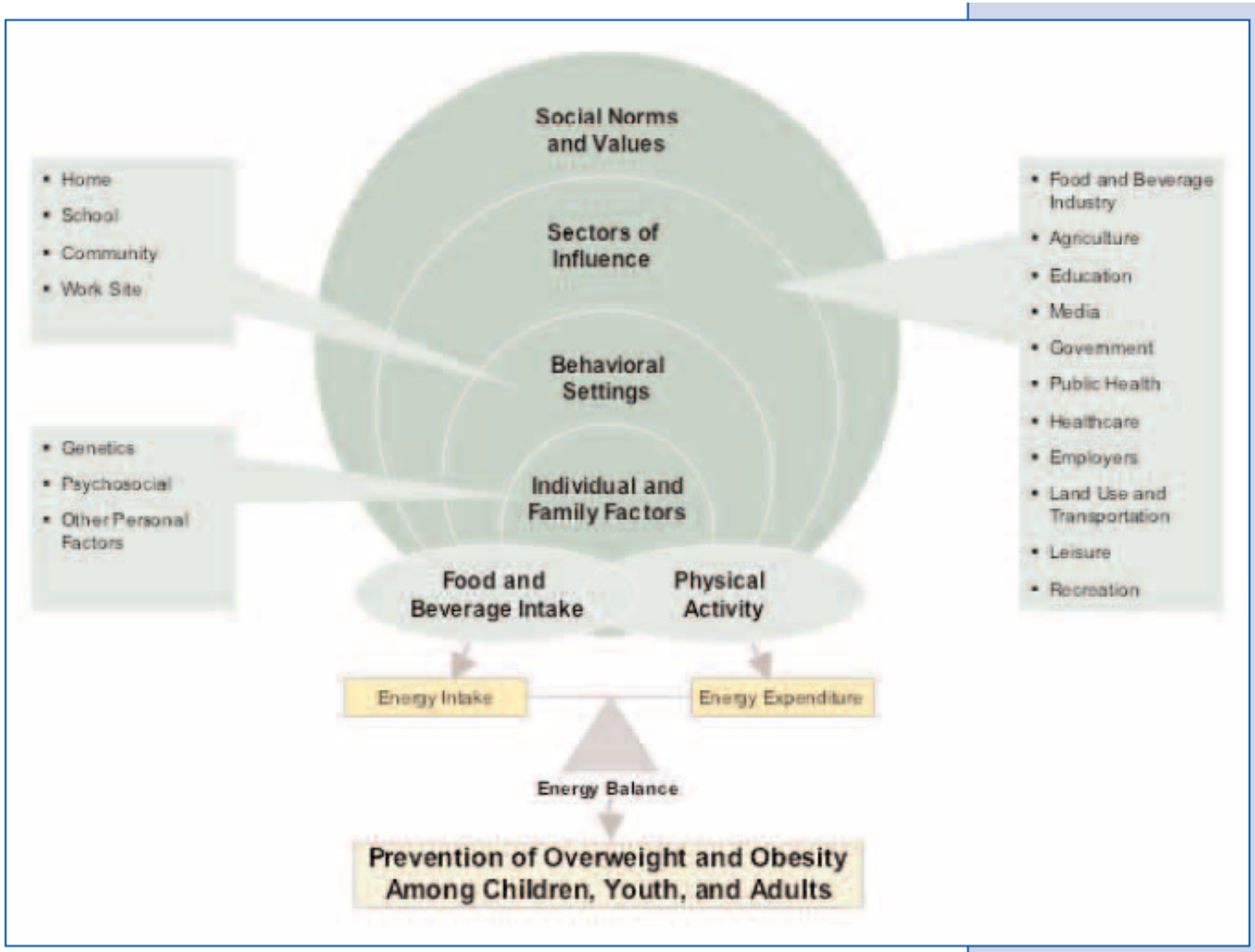
Big Corporations: Marketing Works

- In what is known in the advertising industry as "cradle to grave" marketing, many companies start targeted advertising when children are infants in order to ensure that children grow up with certain acceptable advertising and branding ideas and carry those impressions with them throughout their lives.

- In the year that funding peaked at $3 million for the main government nutrition education program (5-a-Day), McDonald's spent $500 million dollars on a single campaign ("We Love to See You Smile").

Source: Rudd Center for Food Policy and Obesity, Yale University -- http://www.yaleruddcenter.org/default.aspx?id=37

Solutions need to address all levels:



Source/Note: Adapted from "Preventing Childhood Obesity." Institute of Medicine, 2005.

Solutions need to address all stages:

Some suggestions for obesity prevention at different stages of development:

- Prenatal: supply good prenatal nutrition and health care, avoid excessive maternal weight increase, control diabetes, help mothers lose weight postpartum, and offer nutrition education.
- Infancy: encourage increased breast-feeding and continuous breastfeeding to 6 months of age, delay introduction of solid foods until after 6 months of age, provide a balanced diet and avoid excess high-calorie snacks, and follow weight increase closely.
- Preschool: provide early experiences with foods and flavors, help develop healthy food preferences, encourage appropriate parental feeding practices, monitor rate of weight increases to prevent early adiposity rebound, and provide child and parent nutrition education.
- Childhood: monitor weight increase for height (slow down if excessive), avoid excessive prepubertal adiposity, supply nutrition education, and encourage daily physical activity.
- Adolescence: prevent excess weight increase after growth spurt, maintain healthy nutrition as the next generation of parents, and continue daily physical activity.

AMA

Source: Section I: Obesity, the Major Health Issue of the 21st Century; Childhood Obesity: The Health Issue; Richard J. Deckelbaum and Christine L. Williams *Obesity Research* 9:S239-S243 (2001). The North American Association for the Study of Obesity.

What Residents Can Do:

- Emphasize the impact of obesity on their patients' health to your colleagues and other health practitioners
- Start making recommendations to children and parents early
  - Emphasize the importance of regular exercise and check up on patient's compliance at next visit
  - Emphasize good nutrition and dangers of snack foods
  - Emphasize the importance of reduced screen time (less TV and Computer use)
- Refer families to a nutritionist
  - Often times families are not aware that they are making bad food decisions
  - Families need motivation and someone to have longer discussions with them
- Be Proactive: Seek Real Solutions
  - Speak out against big corporations and their marketing strategies
  - Voice your concerns to policy makers at all levels
  - Work with organizations on local, state, and federal levels to sponsor programs and initiatives aiming to prevent childhood obesity.

Even simple steps can help:

- Encouraging Breastfeeding
  - Adolescent obesity is inversely related to the duration of breastfeeding in infancy.

Source: *Breastfeeding Handbook for Physician*; American Academy of Pediatrics and The American College of Obstetricians and Gynecologists, 2006, p. 31.

- Encouraging Exercise
  - Studies estimate that increasing regular moderate physical activity among the more than 88 million inactive Americans over the age of 15 might reduce annual healthcare costs by as much as $80 billion.

Regularly Advise Parents:

•Respect your child's appetite: children do not need to finish every bottle or meal.
• Avoid pre-prepared and sugared foods when possible.
• Limit the amount of high-calorie foods kept in the home.
• Provide a healthy diet, with 30 percent or fewer calories derived from fat.
• Provide ample fiber in the child's diet.
• Skim milk may safely replace whole milk at 2 years of age.
• Do not provide food for comfort or as a reward.
• Do not offer sweets in exchange for a finished meal.
• Limit amount of television viewing.
• Encourage active play.
• Establish regular family activities such as walks, ball games and other outdoor activities.

AMA

Source: American Academy of Family Physicians -- http://www.aafp.org/afp/990215ap/861.html

We're pleading with pediatricians and parents to become aware that consumeristic tendencies are being fed right from birth … we have to understand that youngsters under a certain age cannot differentiate between a commercial and a program.

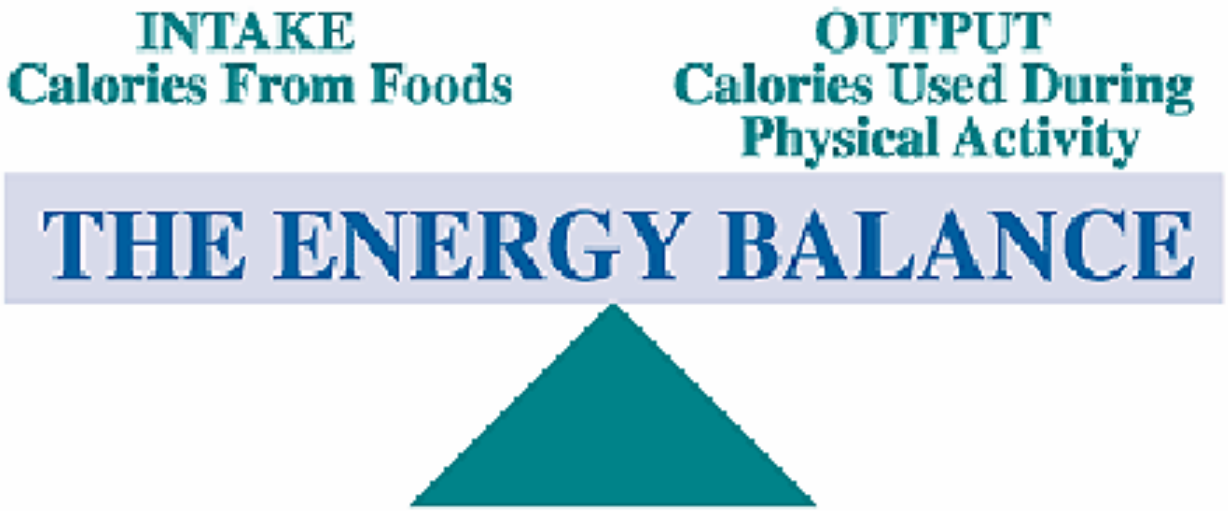
-- Dr. Donald Shifrin, Chairman of the AAP Committee on Communications.

The dramatic increase in the prevalence of childhood overweight and its comorbidities are associated with significant health and financial burdens, warranting strong comprehensive prevention efforts.

American Academy of Pediatrics
Pediatrics 112, 423, 2003

AMA

But in the end the best solution is
an individual's personal effort to maintain a good balance….



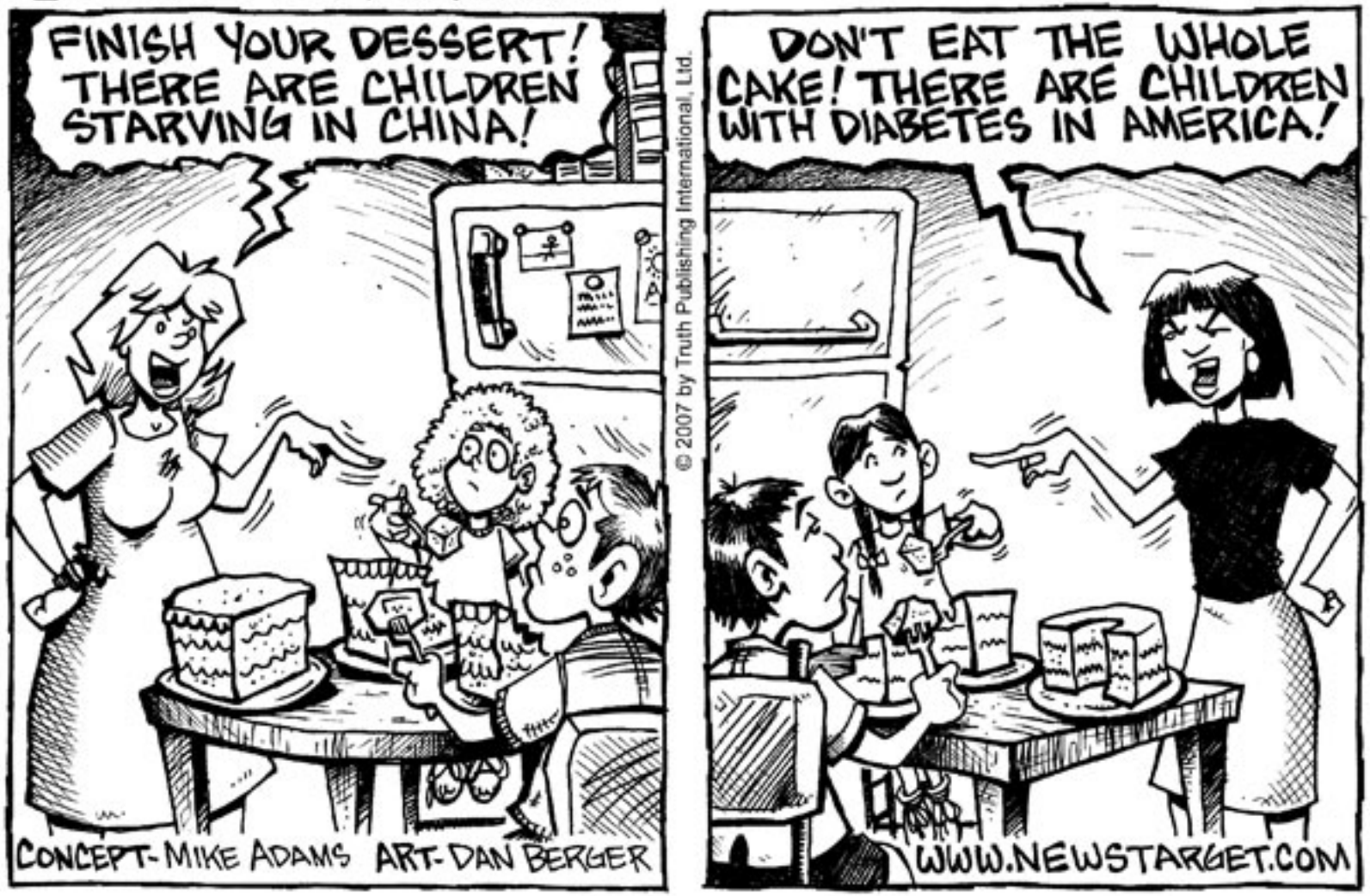
…. and <u>you can help</u> by providing motivation and reminders at each office or hospital visit.….

Otherwise:


HMMM... STUDIES WARN THAT OBESITY IS A SERIOUS THREAT TO OUR CHILDREN.
DEFICIT
HELP!

AMA

COUNTERTHINK



Other References:

- Heffler, Stephen et al. *Health Spending Projections Through 2013.* Health Affairs. February 11, 2004.
- Cutler, David. *Employee Costs and the Decline in Health Insurance Coverage.* National Bureau of Economic Research. NBER.org. http://www.nber.org/aginghealth/fall02/healthInsurance1.html
- http://www.kff.org/insurance/7148/loader.cfm?url=/commonspot/security/getfile.cfm&PageID=46287
- Loureiro, Maria and Rodolfo M. Nayga, Jr. *Economics, Policy and Obesity.* Choices Magazine. Fall 2004. http://www.choicesmagazine.org/2004-3/obesity/
- *Obesity Weighs On The Healthcare System.* CBS News Story, December 07, 2004. http://cbsnewyork.com/topstories/topstoriesny_story_342164650.html
- *Obesity Costs States Billions in Medical Expense.* Press Release, Centers for Disease Control. January 21, 2004. http://www.cdc.gov/od/oc/media/pressrel/r040121.htm
- *Report: CDC study overstated obesity deaths.* November 23, 2004. CNN.com http://www.cnn.com/2004/HEALTH/conditions/11/23/health.obesity.reut/
- Rhonda L. Rundle, *U.S.'s Obesity Woes Put a Strain on Hospitals in Unexpected Ways*, Wall Street Journal, May 1, 2002.
- Marion Nestle and Michael F. Jacobson, *Halting the Obesity Epidemic: A Public Health Policy Approach*, Public Health Reports, 115 (January/February 2000): 14–15.
- Jane Putnam, Linda Scott Kantor, and Jane Allshouse, "Per Capita Food Supply Trends: Progress towards Dietary Guidelines," *Food Review,* 23, no. 3 (September–December 2000): 2–14.
- DHHS, *Surgeon General's Call to Action,* 2.
- National Center for Chronic Disease Prevention and Health Promotion, *Youth Risk Behavior Surveillance System: 2001 Information and Results*, Centers for Disease Control and Prevention. http://www.cdc.gov/nccdphp/dash/yrbs/2001/youth01online.htm
- Lisa R. Young and Marion Nestle, *The Contribution of Expanding Portion Sizes to the U.S. Obesity Epidemic,* American Journal of Public Health*,* 92, no. 2 (February 2002): 246–249.
- *Our Toxic Food Environment To Blame for Increase in Obesity, Says Yale Professor Who Advocates a "Fat Tax" on High-Fat Foods.* Kelly D. Brownell. Yale News Release. June 23, 1997.
- Farley, Tom and Deborah Cohen. Fixing a Fat Nation: Why diets and gyms won't save us from the obesity epidemic. Washington Monthly. December, 2001. http://www.washingtonmonthly.com/features/2001/0112.farley.cohen.html
- Salinsky, Eileen and Wakina Scott. *Obesity in America: A Growing Threat*. National Health Policy Forum Background Paper. July 11, 2003. http://www.nhpf.org/pdfs_bp/BP_Obesity_7-03.pdf
- Lee, Taeku, and J. Eric Oliver. "Public Opinion and the Politics of America's Obesity Epidemic." Working Paper, 2001
- Deborah A. Galuska, Julie C. Will, Mary K. Serdula, and Earl S. Ford, *Are Health Care Professionals Advising Obese Patients to Lose Weight?* JAMA, 282, no. 16 (October 27, 1999): 1576–1578.
- Tarayn Grizzard, *Undertreatment of Obesity*, MSJAMA*,* 288, no. 17 (November 6, 2002): 2177.
- *Physical Activity and Health: A Report of the Surgeon General.* 1996. U.S. Department of Health and Human Services.
- Tanner, Lindsey. *Health report cards in schools help parents address kids obesity, study finds.* August 12, 2003. MercuryNews.com
- *Physical Activity Lowers Obese Workers' Healthcare Costs.* NewsWise Medical News. May 13, 2004. Active.com http://www.active.com/story.cfm?story_id=10716&sidebar=565&category=activeparks

Updated Actions

Laws, Regulations, and Programs Working to Address Childhood Obesity

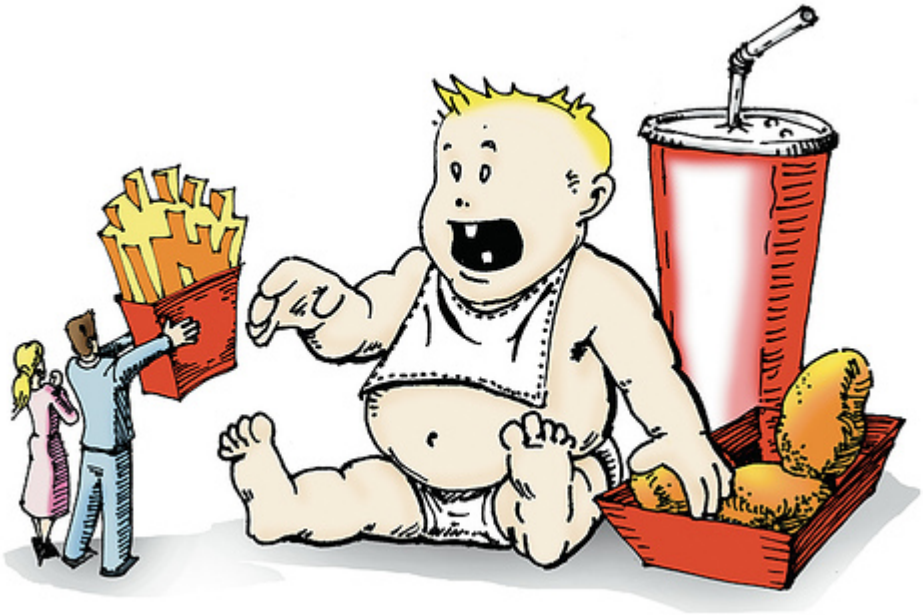
AMA

TOGETHER WE ARE STRONGER

Quick Quiz

CHILDHOOD OBESITY

- Which state is the healthiest?
- Which state is the fattest?



Healthiest Rankings

Colorado

- Obesity – 51st (16.9%)
- Obesity and Overweight – 50th (53%)
- Diabetes – 50th (4.6%)
- HTN – 50th (20.5%)

Utah - HTN 51st (19.8%)

Hawaii - Obesity and Overweight – 51st (51.6%)

Alaska - Diabetes – 51st (4.5%)

http://www.rwjf.org/files/newsroom/interactives/fat1.html

Least Healthiest

Mississippi

- Obesity – 1st (29.5%)
- Obesity and Overweight – 1st (69.5%)
- Diabetes – 2nd (10.1%)
- HTN – 1st (32.7%)

West Virginia – 1st DM (10.4%)

http://www.rwjf.org/files/newsroom/interactives/fat1.html

Outline of Presentation

- Who is addressing childhood obesity?
- What approaches are they recommending?
- What is being done by State and Federal Government? Nonprofits?
- What changes are taking place and can take place in the food market and in our schools?
- What is on the horizon?
- What can we do?

Surgeon General and Department of Health and Human Services

- The Surgeon General identifies the following 15 activities as national priorities for immediate action. Individuals, families, communities, schools, worksites, health care, media, industry, organizations, and government must determine their role and take action to prevent and decrease overweight and obesity.
  - Discusses issues, facts, resources.
  - http://healthierus.gov/
  - http://www.healthypeople.gov
  - http://www.cdc.gov

American Academy of Pediatrics: Recommendations

"Creating active school communities is an ideal way to ensure that children and youth adopt active, healthy lifestyles. These communities require a collaborative framework between families, schools, community recreation leaders, and health care professionals. Physicians can be instrumental in the development of active school communities by advocating for policy changes at the community, state, and national levels that support healthy nutrition, reducing sedentary time, and increasing physical activity levels while providing education and health supervision about regular physical activity and reduced sedentary time to families in their practices."

- **Active Healthy Living: Prevention of Childhood Obesity Through Increased Physical Activity, *Pediatrics.* 2006;1834-1842**

Institute of Medicine's Preventing Childhood Obesity: Health in the Balance

- In 2004, released a report with recommendations and an action plan to reduce the prevalence of overweight children and adolescents.
- In September 2006, released its most recent progress report, *Progress in Preventing Childhood Obesity: How Do We Measure Up?*
  - public and private sectors are not doing enough to address the problem, particularly compared to their investments in other key public health concerns such as bioterrorism.
  - IOM's key recommendations:
    - Lead and commit to childhood obesity prevention
    - Evaluate policies and programs
    - Monitor progress
    - Disseminate promising practices

Trust For America's Health (TFAH): F as in Fat Reports

- 2006 Report - focused on obesity rates and policies and offers a 20-step action plan for addressing obesity
- Recommends a comprehensive approach involving all stakeholders – families, communities, schools, employers, food and beverage industry, health professionals and state and federal governments.

http://healthyamericans.org

TFAH's Recommendations

- fully-funded, long-term solutions
- fast-track research to identify effective evidence-based interventions and best practices.
- Better indicators to measure success and progress (i.e., measure of physical fitness and nutrition, rather than weight and BMI.)
- Community-based efforts to increase access to health foods and opportunities for physical activity.
- School-based efforts to enhance physical education and the nutritional content of foods and beverages offered.
- Employer-based programs to offer employees wellness programs and benefits and opportunities to be physically active.
- Food, beverage and marketing industry initiatives to encourage healthier options and better inform consumers.
- Federal government revisions to the USDA school meal program standards

http://healthyamericans.org

TFAH's Key Policy Focus

- **Bolstering Preventive Care:** Employers, including the government, and Medicaid should provide routine obesity-risk screening and more benefits for preventative care, obesity-related disease management, and subsidizing and encouraging fitness activities.
- **Leveraging Change in Food Options.** The federal government should leverage its clout as a major food purchaser to require a greater emphasis on nutritional value as a priority in the bidding process for food contracts, such as in contracting for cafeterias, public-assistance programs, and military meals. The government should also address public concerns over the new food pyramid and the Women, Infant and Children and food stamp programs should be adapted to focus on maximum nutrition for cost.
- **Smarter Community Design:** Communities and government must stress smarter community design, including requiring the evaluation of the health impact of new building efforts and updating existing development and encouraging design that promotes and integrates space for physical activity, such as recreational space, sidewalks, public transportation, and safe staircases, and the inclusion of food shopping venues in new development.
- **Improving School Nutrition and Physical Education:** School districts should take the position that minimum standards are not good enough for America's students. Food contracts should be reevaluated to focus on maximum nutrition as a priority in the bidding process. And, physical education must be given greater priority in schools' curriculum.
- **Providing More Useful Information and Support:** Federal, state, and local government should provide more accessible, uniform, and constructive information to the public, extend and fully fund community-based obesity-reduction efforts, and forge stronger partnerships with private industry to support offering healthy options to consumers.
- The report was supported by grants from the Dr. Robert C. Atkins Foundation, the Bauman Foundation, and the Benjamin Spencer Fund. The report and state-specific information is available on TFAH's Web site at www.healthyamericans.org.

AMA

Robert Wood Johnson Foundation

- 2006 Awards: 128 Grants; $41.8 Million
- Reversing the childhood obesity epidemic by 2015 by improving access to affordable healthy foods and increasing opportunities for physical activity in schools and communities across the nation.
- commit at least $500 million over the next five years to fight childhood obesity.
- Some of its current work:
  - Active Living Research (http://www.activelivingresearch.org/)
  - Healthy Eating Research (http://www.healthyeatingresearch.org)
  - Research and advocacy.
    - Most recently, RWJF supported an independent evaluation of efforts to implement Arkansas Act 1220, which mandated a comprehensive approach to addressing childhood obesity in public schools.

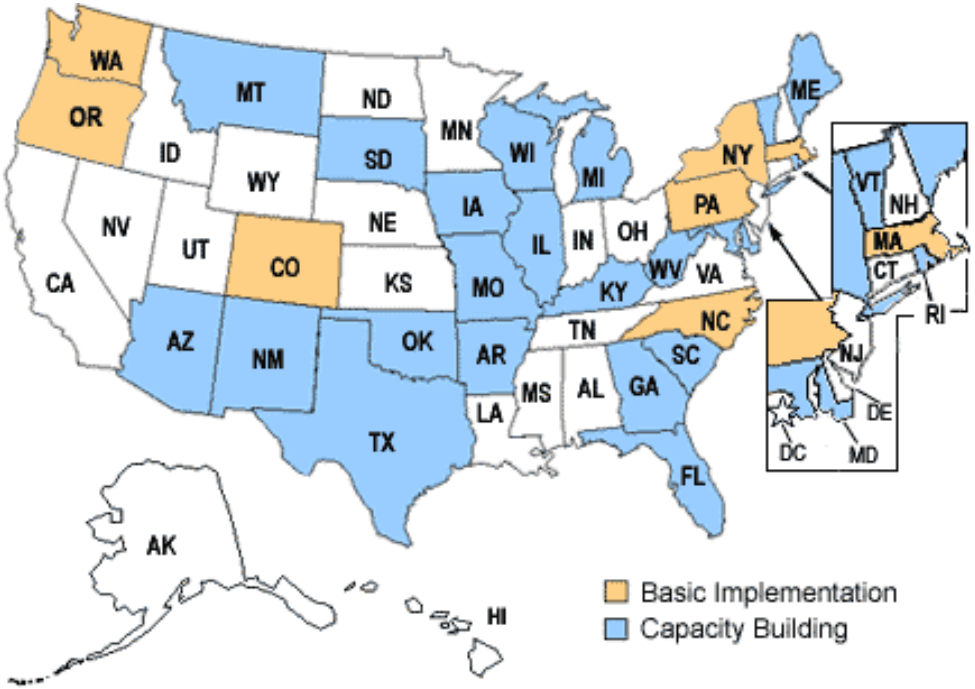
Government Councils, Nonprofits, Private/Public Initiatives

- Governor's Council on Health and Physical Fitness
- State Sports Foundations
- States Large Collegiate Institutions
- Department's of Agriculture
- Cultural Center
- State Initiatives, Festivals, Sponsorship Programs.
- Robert Wood Johnson Foundation committing to spend at least $500 million over the next five years to reverse the childhood obesity epidemic by 2015.
  - Arkansas Act 1220 – obesity in schools
  - Philadelphia Food Trust – get nutritious foods accessible to underserved
  - A Nation at Risk: Obesity in the United States

2006 State Legislation on School Nutrition, Health and Physical Education

- Legislation enacted in 15 states
- Legislation considered in 21 states
- Legislation introduced in 36 states
- No legislation introduced in 8 states
- Legislation not in session in 6 states
  - The Child Nutrition and WIC Reauthorization Act of 2004 requiring every school district participate in National School Lunch Program

CDC Overview of State Programs and Legislation



- In Fiscal Year 2007, NPAO funded 21 “capacity-building” states to do the following:
- Establish state infrastructure;
- Plan obesity prevention and control efforts;
- Identify data sources to monitor the burden of obesity;
- Collaborate and coordinate with public and private partners; and
- Begin implementing interventions.
- In addition, seven “basic implementation” states were funded to do the following:
  - Implement a comprehensive nutrition and physical activity state plan to prevent and control obesity and other chronic diseases;
  - Provide training and technical assistance to communities;
  - Implement and evaluate nutrition and physical activity interventions to prevent obesity and other chronic diseases; and
  - Evaluate the progress and impact of the both state plan and interventions.
- (Five states funded at the capacity-building level — Georgia, Kentucky, Missouri, Texas, and Wisconsin — have met all the required performance measures to qualify for basic-implementation status, when funding is available.)

http://www.cdc.gov/nccdphp/dnpa/obesity/state_programs/funded_states/index.htm

State Initiatives

- **Has Limited Liability Laws (25 states)**
  - States that generally protect manufacturers and sellers of food products from litigation that seeks damages for injury due to weight gain, obesity, and health conditions associated with obesity as a result of consuming food products. When defining food, states usually refer to Section 201 (f) of the Federal Food Drug and Cosmetic Act [21 U.S.C. 321 (f)].
- **Receives STEPS Grant – 46 states (Kansas, Colorado, Alaska, South Dakota)**
  - These grants are awards by the Department of Health and Human Services to states, cities, and rural communities to support innovative, community-based programs to prevent diabetes, asthma, and obesity.
- **Has a CDC State-Based Nutrition & Physical Activity Program – requirements met by Illinois and California (2 states)**
  - CDC's Division of Nutrition and Physical Activity (DNPA) awards grants to help improve state efforts to prevent obesity and chronic disease through promotion of good nutrition and physical activity.
- **Has Snack Taxes – TN, Arkansas, IL, WV**
  - Original data for this category come from a study conducted by Yale University published in the June 2000 issue of the American Journal of Public Health. In each subsequent year, data were updated by the appropriate subcontractor or by TFAH staff. Various definitions of "food" in the respective tax policies were not researched or enumerated, which may or may not include only snack items.

AMA

State School Standards

- **Nutritional Standards for School Meals – 17 states**
  - Federal standards are set by the USDA Food and Nutrition Service (FNS) regarding foods sold in school-based food programs. There are different and specific standards for both the National School Lunch Program and the School Breakfast Program, such as recommended daily allowances for calories, protein, and other needed vitamins and minerals, as well as limits on saturated fat. States included under this category are those that have implemented nutritional standards beyond these USDA requirements.

- **Nutritional Standards for Competitive Foods – 26 states**
  - USDA regulations restrict only a small subset of competitive foods — such as carbonated beverages, water ices, chewing gum, hard candy, jellies and gums, marshmallow candies, fondant, licorice, spun candy, and candy-coated popcorn — from being sold during meal times in cafeterias, and additional regulation of is left up to the states. USDA regulations do not prohibit sales outside of the cafeteria areas at any time throughout the day. States included under this category are those that have general standards for competitive foods and those that have implemented restrictions beyond USDA regulations

State School Standards

- **Limited Access to Competitive Foods – 8 states**
  - USDA regulations restrict only a small subset of competitive foods — such as carbonated beverages, water ices, chewing gum, hard candy, jellies and gums, marshmallow candies, fondant, licorice, spun candy, and candy-coated popcorn — from being sold during meal times in cafeterias, and additional regulation of is left up to the states. USDA regulations do not prohibit sales outside of the cafeteria areas at any time throughout the day. States included under this category are those that have general standards for competitive foods and those that have implemented restrictions beyond USDA regulations.

- **Physical Education Requirements – 24 states**
  - These categories include information on frequency and duration of physical education programs, and whether physical education is a high school graduation requirement, as well as information on permissible student exemptions or waivers from physical education requirements. These data do not distinguish between what schools must offer and what students are required to take (unless noted as such).

State School Standards

- BMI Information Collected – 9 states
  - This category lists those states that have enacted BMI screening programs.
- Non-Invasive Screening for Diabetes – 14 states
  - This category lists those state that have enacted non-invasive Diabetes screening programs.
- Health Education Requirements – 21 states
  - This category includes information on frequency and duration of programs, and whether health education is a high school graduation requirement. Again, the data do not distinguish between what schools must offer and what students are required to take (unless noted as such).
- Receives CDC School Health Program Grants – all but South Dakota
  - CDC's Division of Adolescent and School Health (DASH) awards grants to improve school health programs and policies designed to help young people avoid behaviors that increase risk for obesity and chronic disease.

2006 State Legislation

- Connecticut SB 373 – allows for local control over food in schools, but provides a unique financial incentive for schools to offer healthy foods. Districts that abide receive an additional 10 cents per lunch from the state.
- Iowa SB 2124 – the Department of Public Health awards grants to six communities in each of six regions based on increasing fruit and vegetable consumption and physical activity up to 60 minutes per day among elementary.
- California - SB 1329 “Healthy Food Retailing Initiative” and HB 2384 “Health Food Purchase Pilot Program” – focusing on increasing sales of fresh fruit and vegetables in low-income communities.
- Tennessee SB 3143 – would have required local education and agencies to review and report on long-term health effects of structured and intramural sports on children.

2006 State Legislation

- Virginia HB 1593 and SB 206 – required all superintendents to receive instruction on the causes, consequences, prevention and reduction of childhood obesity
- Nevada – Nevada Association for Health, Physical Education, Recreation and Dance continued to push for a state constitutional amendment requiring public schools to provide daily Physical Education.
- 2007 State Legislation Louisiana SB 311
  - authored by Senator Bill Cassidy. Requires the appointment of a supervisor for health and physical education and sets out minimum training requirements for the position. In addition, the supervisor is to seek input and guidance from a short list of health and physical education organizations including the Louisiana Chapter of AAP.

Federal Bills for greater regulation of food and beverage marketing

- Prevention of Childhood Obesity Act, FD SB 799
  - Introduced in April 2005
  - Directs the Institute of Medicine to conduct a study and make recommendations on guidelines for nutritional food and physical activity advertising and marketing to prevent childhood obesity.
  - Establishes a Federal Leadership Commission to Prevent Childhood Obesity and requires the commission to hold a National Summit to Implement Food and Physical Activity Advertising and Marketing Guidelines to Prevent Childhood Obesity.
  - Authorizes the FTC to issue regulations and monitor compliance with those regulations, for advertising and marketing of nutritional foods and physical activity directed at children and youth, as recommended by the summit.
  - Prohibits advertisements and marketing in schools and on school grounds for foods of poor or minimal nutritional value such as fast foods, soft drinks, and candy.

Federal Bills for greater regulation of food and beverage marketing

- Healthy Lifestyles and Prevention America Act, FD SB 1074
  - Introduced May 2005
  - Restores the authority of the FTC to issue regulations that restrict the marketing or advertising of foods and beverages to children under the age of 18 years if the FTC determines that there is evidence that consumption of certain foods and beverages is detrimental to the health of children.
  - Allows the Secretary to prohibit the advertising of food in schools if the Secretary determines that consumption of the advertised food has a detrimental effect on the diets or health of children.

Federal Bills for greater regulation of food and beverage marketing

- **Children's Health Federal Trace Commission Authority Restoration Act, FD HB 5737**
  - Introduced June 2006
  - Restores the authority of the FTC to issue regulations that restrict the marketing or advertising of foods and beverages to children under the age of 18 years if there is evidence that consumption of certain foods and beverages is detrimental to the health of children.

Federal Trade Commission (FTC) and Department of Health and Human Services (HHS) and FDA Action on Advertising and Marketing

- Perspectives on Marketing, Self Regulation and Childhood Obesity
  - New products and changing existing ones including portions and content.
  - Easily identifiable healthy labels
  - Careful food marketing to children
  - Utilize children's television and movie characters to promote more nutritious foods.
  - Educate consumers on nutrition and exercise
- Keystone Forum on Away-From-Home Foods: Opportunities for Preventing Weight Gain and Obesity – May 2006
- Kaiser Family Foundation – It's Child's Play: Advergaming and the Online Marketing of Food to Children

Alliance for a Healthier Generation

Joint initiative with Clinton Foundation and the American Heart Association

- **Memorandum of Understanding (MOU)** with American Beverage Association (ABA), Cadbury Schweppes Americas Beverages, The Coca-Cola Company, and PepsiCo, Inc to set a new school beverage policy nationwide:
- Elementary Schools – only bottled water, low- and nonfat milk and milk alternatives (not to exceed 150 calories per 8-ounce serving) and 100 percent juice with no added sweeteners (not to exceed 120 calories per 8-ounce serving)
- Middle Schools: Same guidelines as elementary schools except serving sizes must not exceed 10 ounces.
- High Schools: Bottled water, no- or low-calorie beverages (not to exceed 10 calories per 8-ounce serving), low- and nonfat milk and milk alternatives (not to exceed 150 calories per 8-ounce serving), 100 percent juice with no added sweeteners (not to exceed 120 calories per 8-ounce serving) and light juices and sports drinks (with no more than 66 calories per 8-ounce serving); serving sizes for milk, juices, and sports drinks must not exceed 12 ounces, and at least 50% of beverages available for sale must be water and no- or low-calorie options.

Goal of Memorandum of Understanding

- Implementation of the policy in 75% of schools by 2008-2009
- Implementation in all schools by 2009-2010
- ABA launched $10-million advertising campaign
- Currently working on renegotiations on previous contracts in order to reach goals.
- Key is comprehensive effort with companies, bottlers, independent companies, and schools to work together.
- Has caused food and beverage industry to explore more alternative drinks (various flavored waters and sports drinks in recent years and 100 calorie bags)

Results of these Efforts

- Kraft Food, Inc phasing in Sensible Solution criteria advertising and phasing out those who do not meet criteria.
- PepsiCo no longer advertises to children under 12.
- Frito-Lay no longer advertises Cheetos to children under 8.
- Nickelodeon, Warner Brothers, Walt Disney working in conjunction with healthy partners
  - SpongeBob Square Pants spinach
  - Dora the Explorer oranges
  - Tweety Bird grapes
  - Tasmanian Devils apples

New Marketing Targeting Childhood Obesity

The McDonald's Shrek themed "Milk and Apples" campaign.




Medicaid Reforms Discussions

- Deficit Reduction Act of 2005
  - HHS authorizes 10 states to conduct demonstration programs to implement Health Opportunity Accounts that include a focus on encouraging preventing services and enabling patients to take responsibility of their health. CMS to add some guidelines as well.
- Idaho Medicaid Simplification Act
- West Virginia enhanced and basic plan packages
- Michigan SB 1083 – offering federal incentives for positive health behavior by Medicaid

What we can do as residents?

- Advocate for your state laws addressing childhood obesity as it pertains to marketing, competitive food items, and school-based programs.
- Know the efforts in your community and/or create your own efforts.
- Apply for grants and relay grant information to those in your community.
- Create partnerships
- Educate your patients and colleagues.
- Understand the facts behind childhood obesity and address the issue now as it is already becoming an epidemic.

BIBLIOGRAPHY

- Barlow SE, Dietz WH, for the Maternal and Child Health Bureau, Health Resources and Services Administration, and the Department of Health and Humans Services. Obesity evaluation and treatment: expert committee recommendations. Pediatrics. 1998; 102:E29.
- Berkowitz RI et al. *Behavior Therapy and Sibutramine for the Treatment of Adolescent Obesity*. JAMA 289, No. 14 (April 9, 2003): 1805-1812.
- Daley AJ et al. *Exercise Therapy as a Treatment for Psychopathologic conditions in Obese and Morbidly Obese Adolescents: A Randomized, Controlled Trial*. PEDIATRICS 118, No. 5 (November 2006): 2126-2134.
- Franklin, J, Denyer G, Steinbeck KS, Caterson ID, Hill AJ. *Obesity and Risk of Low Self-esteem: A Statewide Survey of Australian Children.* Pediatrics 118;6:December 2006: 2481-2487.
- Freedman DS, Khan LK, Dietz WH, Srinivasan SR, Berenson GS. *Relationship of childhood obesity to coronary heart disease risk factors in adulthood: The Bogalusa Heart Study*. Pediatrics 2001; 108:712-718
- Gidding, SS et al. *Higher Self-reported Physical Activity is Associated with Lower Systolic Blood Pressure: The Dietary Intervention Study in Childhood (DISC*). Pediatrics 118;6; December 2006: 2388-2393.
- Hu, FB et al. *Television Watching and Other Sedentary Behaviors in Relation to Risk of Obesity and Type 2 Diabetes Mellitus in Women*. JAMA, 289, No. 14 (April 9, 2003): 1785-1791.
- Schwimmer JB et al. *Health-Related Quality of Life of Severely Obese Children and Adolescents*. JAMA 289, No. 14 (April 9, 2003): 1813-1819.
- Tarayn Grizzard, *Undertreatment of Obesity*, MSJAMA, 288, no. 17 (November 6, 2002): 2177. *Physical Activity and Health: A Report of the Surgeon General.* 1996. U.S. Department of Health and Human Services
- Tate, DF et al. *Effects of Internet Behavioral Counseling on Weight Loss in Adults at Risk for Type 2 Diabetes*. JAMA 289, No. 14 (April 9, 2003): 1833-1836.
- Yanovski, JA and Yanovski SZ. *Treatment of Pediatric and Adolescent Obesity*. JAMA, 289, No. 14 (April 9, 2003): 1851-1853.

Childhood Obesity Websites

- http://www.cdc.gov/
- http://www.rwjf.org
- www.aap.org
- http://healthierus.gov/
- http://www.healthypeople.gov
- http://www.cdc.gov
- http://healthyamericans.org
- http://www.activelivingresearch.org/
- http://www.healthyeatingresearch.org
- www.activelivingbydesign.org
- www.shapingamericasyouth.org
- www.shapeup.org
- www.nal.usda.gov/childcare
- www.healthymeals.nal.usda.gov
- www.yaleruddcenter.org/home
- www.cspinet.org/schoolfood

AMA

Dateline Video

- http://video.msn.com/v/us/msnbc.htm?g=654d2282-954d-42e8-a9cb-750df02dce2f&f=00&fg=copy




Appreciation to the following contributors:

Sami Beg, MD

Esteban Gershanik, MD

Hannah Zimmerman, MD


AMA
AMERICAN
MEDICAL
ASSOCIATION