

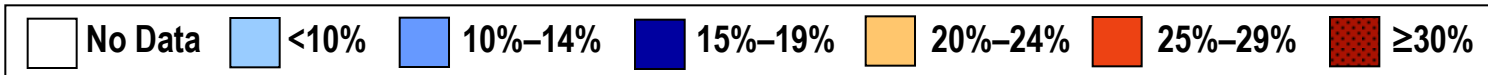
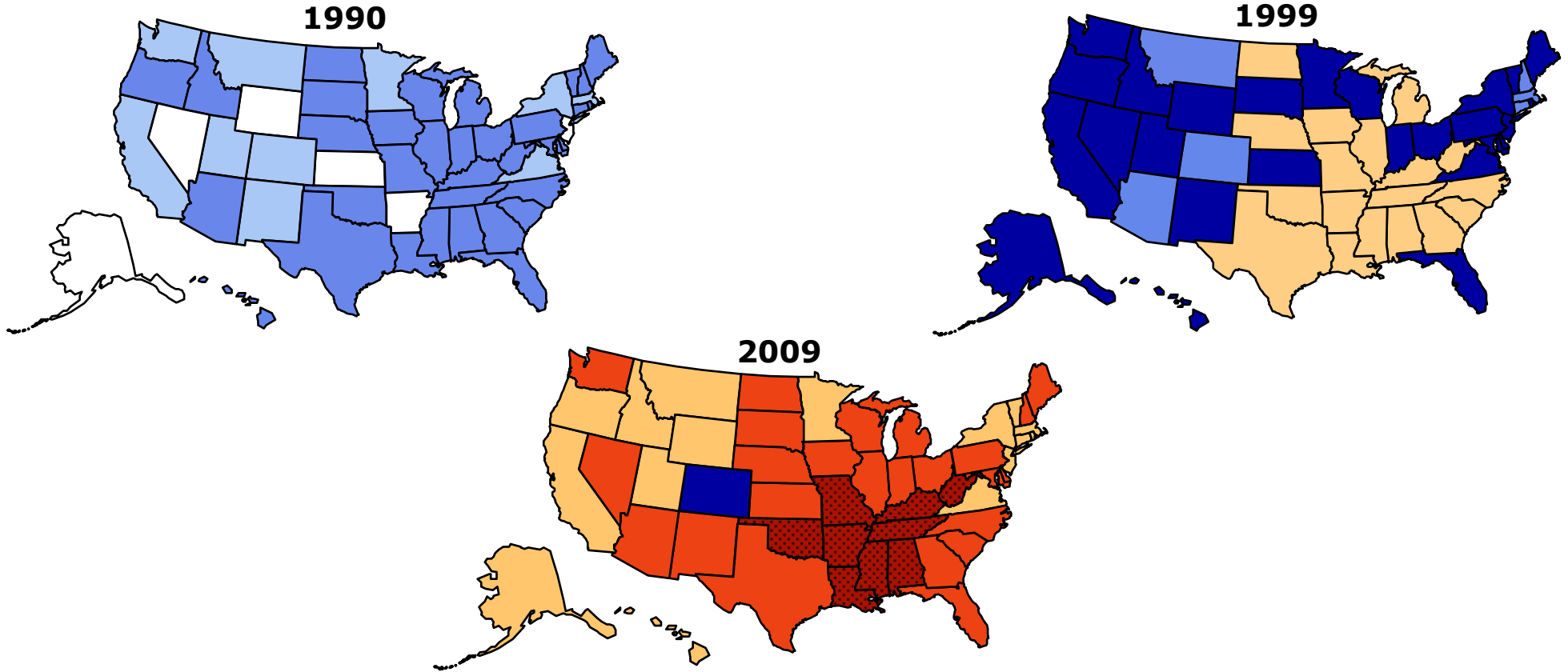
# **Obesity in America: Consequences and Strategies**

**William H. Dietz, MD, PhD**  
**Director of the Division of Nutrition, Physical  
Activity, and Obesity**  
**Centers for Disease Control and Prevention**

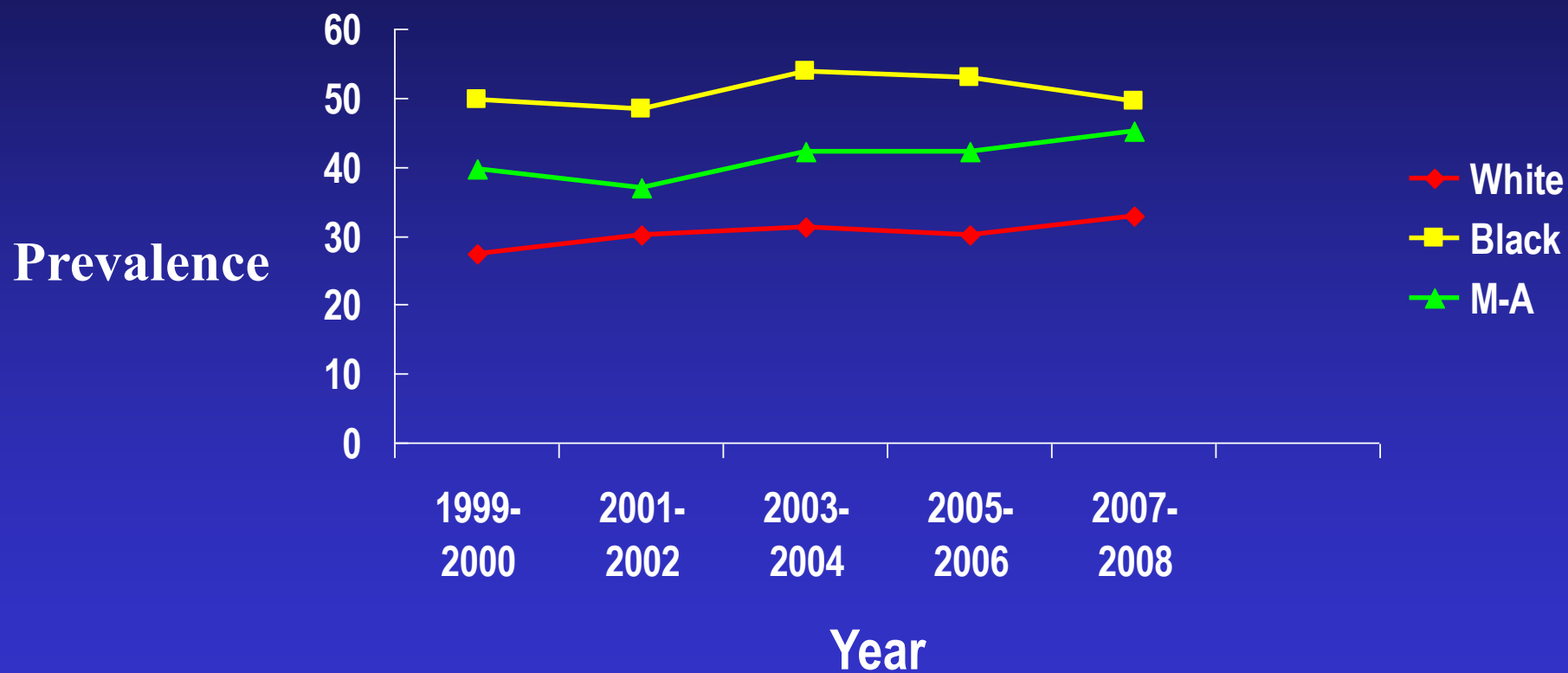


# Obesity Trends Among U.S. Adults

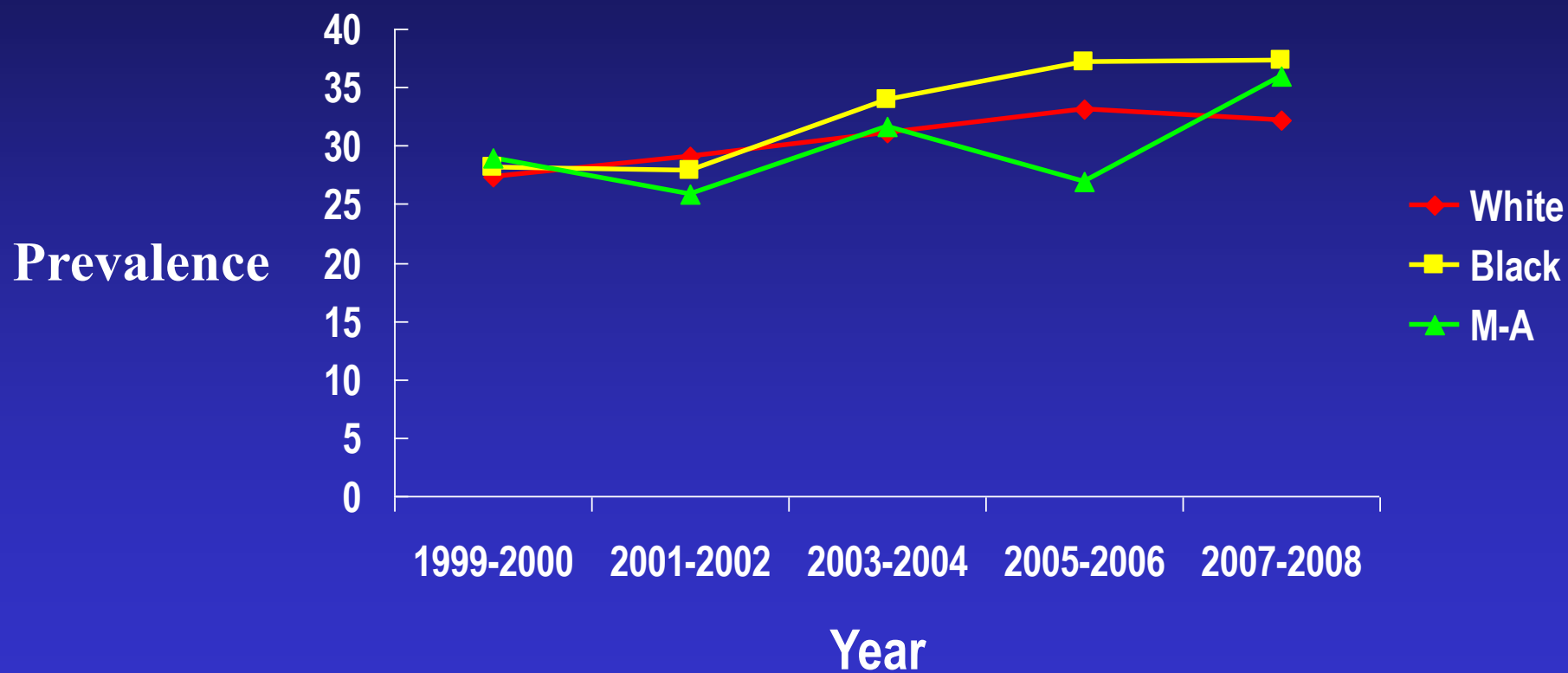
## BRFSS, 1990, 1999, 2009



# Changes in Prevalence of Obesity in Women 1999-2008

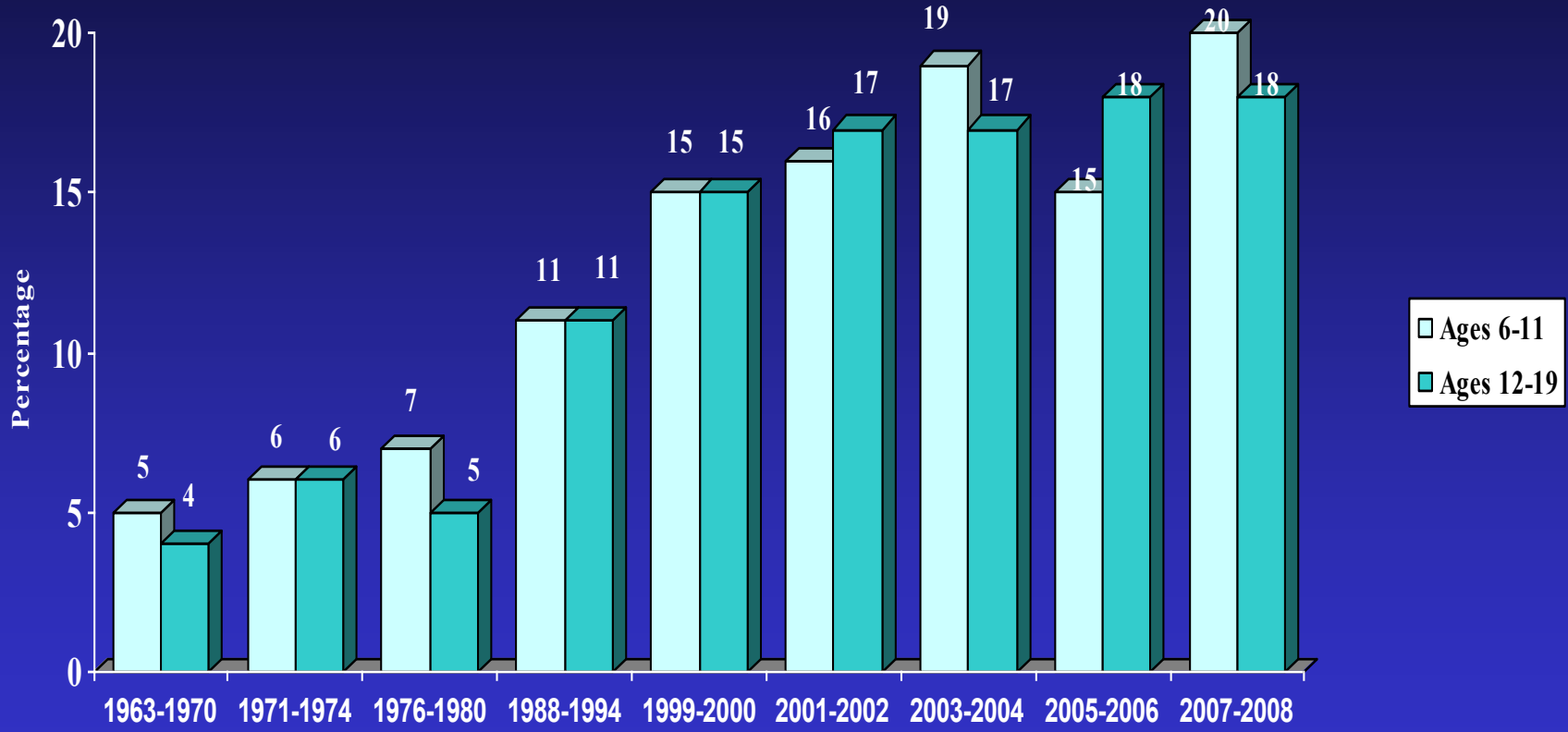


# Changes in Prevalence of Obesity in Men 1999-2008



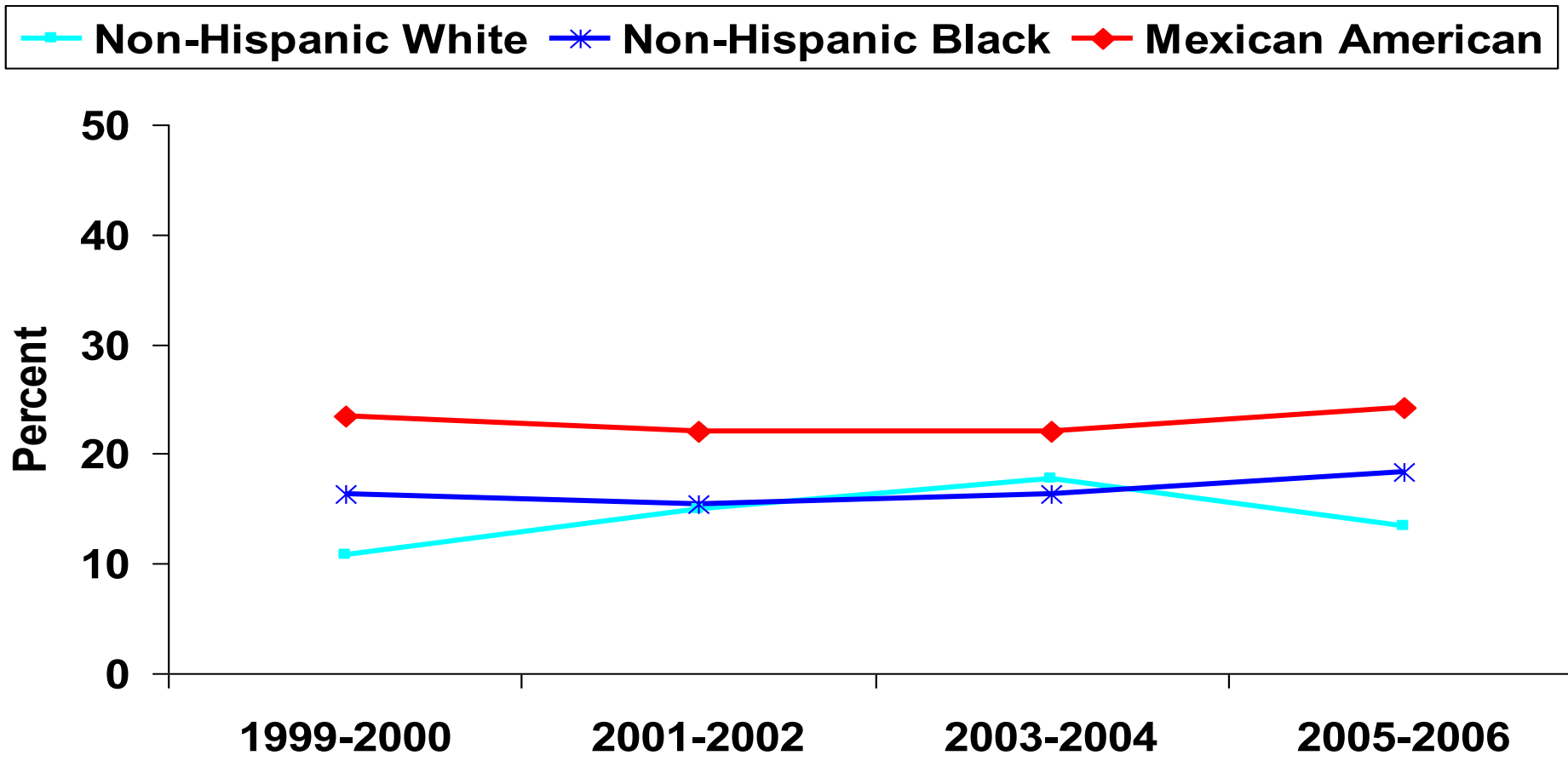
Flegal KM et al. JAMA 2010;303:235

# Prevalence of Obesity Among Children and Adolescents Ages 6-19 Years

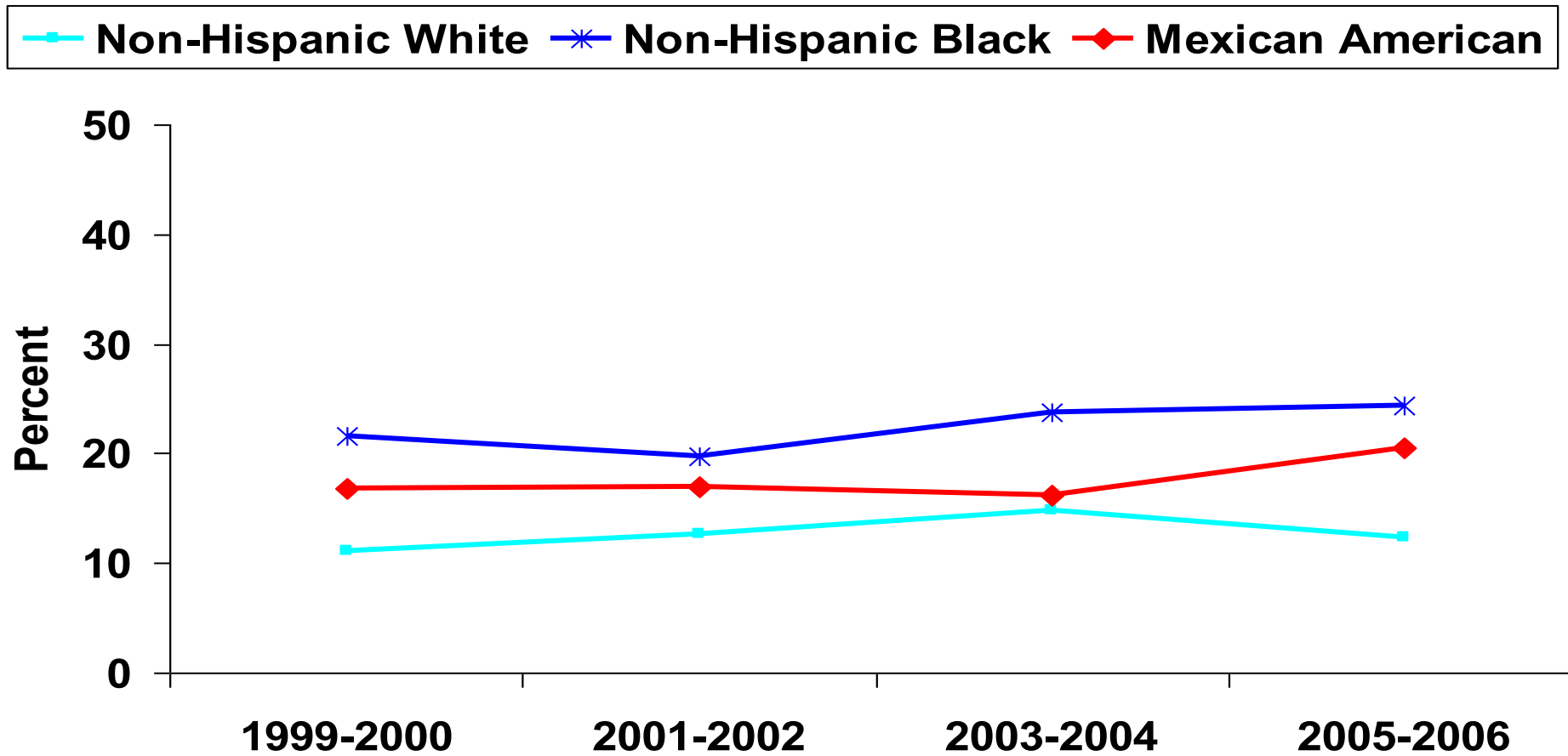


Source: *JAMA*, April 5, 2006, Vol. 295, No. 13:1549; *JAMA* 2010, and *Pediatrics* 1998; 101:497

# Changes in Obesity Prevalence by Race/ethnicity, Boys 2-19 Years

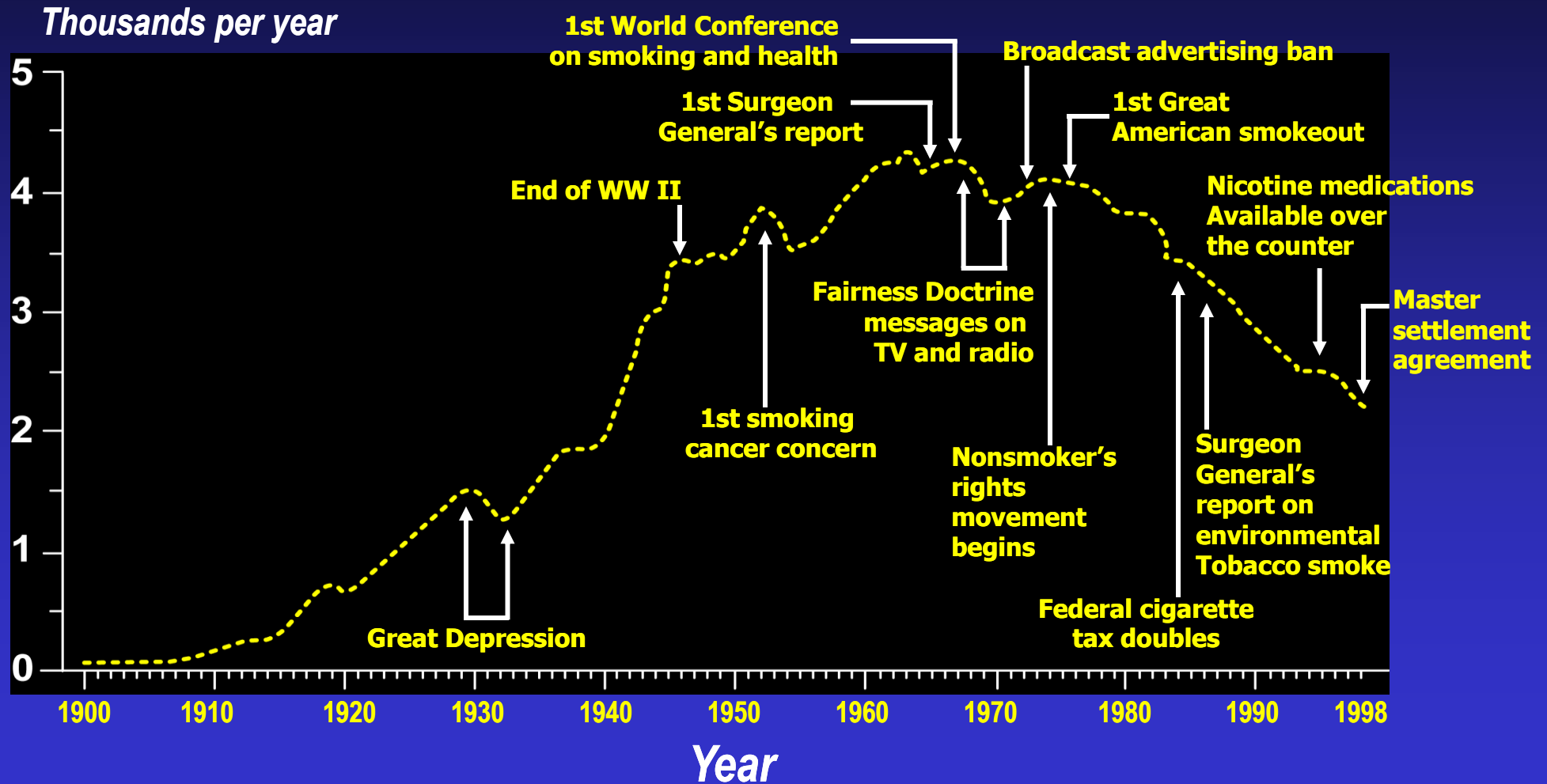


# Changes in Obesity Prevalence by Race/ethnicity, Girls 2-19 Years



Ogden CL et al. JAMA 2008;299:2401

# Annual Adult per Capita Cigarette Consumption and Major Smoking and Health Events – US 1900-1998





# Impact of Childhood Overweight (BMI $\geq$ 95<sup>th</sup> percentile) on Adult Obesity (BMI $\geq$ 30)

- 25% obese adults were overweight children
- 4.9 BMI unit difference in severity
- Onset  $\leq$  8y more severely obese as adults (BMI = 41.7 vs 34.0)
- 50% of adults with BMI  $\geq$  40 were obese as children

# Per Capita Expenses Due to Excess Weight

	Obesity Grade	I	II	III
<u>Men (total)</u>		\$1143	\$2491	\$6078
Medical		\$475	\$824	\$1269
Absenteeism		\$277	\$657	\$1026
<u>Presenteeism</u>		\$391	\$1010	\$3792
<u>Women (total)</u>		\$2524	\$4112	\$6694
Medical		\$1274	\$2532	\$2395
Absenteeism		\$407	\$67	\$1262
Presenteeism		\$843	\$1513	\$3037

Finkelstein EA et al. J Occupational Environ Med 2010;52:971

# Costs of Obesity – 1998 vs 2008

	<u>1998</u>	<u>2008</u>
Total costs	\$78.5 B/y	\$147 B/y
Medical costs	6.5%	9.1%

Increased prevalence, not increased per capita costs, was the main driver of the increase in costs

Finkelstein et al. Health Affairs 2009; 28:w822



# Average Daily Energy Gap (kcal/day) Between 1988-94 and 1999-2002

---

	<u>Excess Weight Gained</u> (Lb)	<u>Daily Energy Gap</u> (kcal/day)
All Teens	10	110 -165
Overweight Teens	58	678 -1,017

Sugar drinks (SDs) = 250 Kcal/d

Only 21-50 Kcal/d of calories from SDs consumed in schools

Healthy Weight Commitment – 1.5 trillion Kcal reduction

12.5 Kcal per capita

Quality PE = 35 Kcal/d

# Principal Targets

**Pregnancy: pre-pregnant weight, weight gain, diabetes, smoking**

**Reduce energy intake**

**Decrease high and increase low  $E_D$  foods**

**Increase fruit and vegetable intake**

**Reduce sugar-sweetened beverages**

**Decrease television time**

**Breastfeeding**

**Increase energy expenditure**

**Increase daily physical activity**

# Priority Strategies to Address Target Behaviors

## Energy density

- Apply nutrition standards in child care and schools
- Promote menu labeling in states and communities
- Increase retail food stores in underserved areas

## Fruits and vegetables

- Increase access through retail stores
- Farm to where you are policies
- Food policy councils

## Sugar-sweetened beverages

- Ensure access to safe and good tasting water
- Limit access
- Differential pricing strategies

# Priority Strategies to Address Target Behaviors

## Television viewing

Regulations to limit TV time in child care settings

Limit food advertising directed at children

## Breastfeeding

Policies and environmental supports in maternity care

Policy and environmental supports in worksites

State and national coalitions to support breastfeeding

## Physical activity

Community-wide campaigns

Increase access with informational outreach

Increase opportunities for PA in school settings

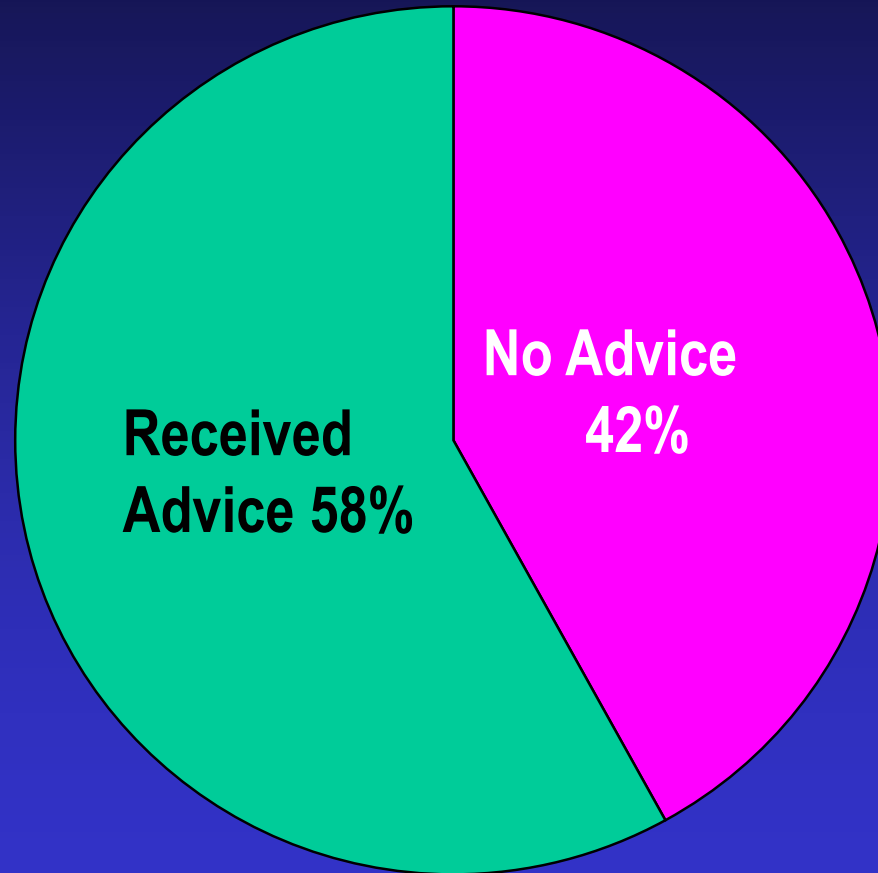
# Settings for the Prevention and Treatment of Obesity

- Industry
- Child care
- Medical Settings
- School
- Work Site
- Community





# Prevalence of Weight Loss Advice From a Health Care Provider Among Obese Persons



Galuska DA et al. JAMA 1999

# Chronic Care Model

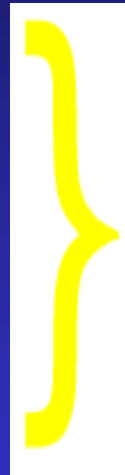
## Environment

Family

School

Worksite

Community



Family/Patient  
Self-Management

## Medical System

Information Systems

Decision Support

Delivery System Design

Self Management Support



# Settings for the Prevention and Treatment of Obesity

- Industry
- Child care
- Medical Settings
- School
- Work Site
- Community



# Why Have a Workplace Health Promotion Program

## Potential benefits to *employers*:

- Reduce employee turnover
- Decrease absenteeism
- Reduce cost for chronic diseases
- Improve worker satisfaction
- Demonstrate concern for your employees
- Enhance organizational commitment to health

## Potential benefits to your *employees*:

- Greater productivity
- Improve fitness and health
- Improve morale
- Lower out-of-pocket costs for health care services
- Social opportunity and source of support within the workplace
- Safer work environment

# Policy Horizons: Does Your Organization Have These in Place?

- Tobacco-free campus or worksite
- Flexible work/schedule policies
  - parental/dependent care
- Nutritious foods-at-meetings policy
- Healthy transportation policies
- Smoke-free meetings policy
- Time during work hours for wellness activities
  - Physical activity
  - Training or educational opportunities, health fairs, events
  - Screenings, health coaching, EAP

# Does Your Built Environment Allow Health to Thrive?

- **Safe, hazard-free workplace**
- **Welcoming, user-friendly workspaces**
- **Stairs, walkways, paths, trails that are safe and inviting**
- **Onsite food choices that make eating healthier easy**
- **Lactation rooms**
- **Transportation and parking options that enhance health**
- **Onsite or nearby health clinic or access to healthcare providers**
- **Fitness facilities or opportunities for physical activity**

# CDC Workplace Health Promotion Toolkit and Portal

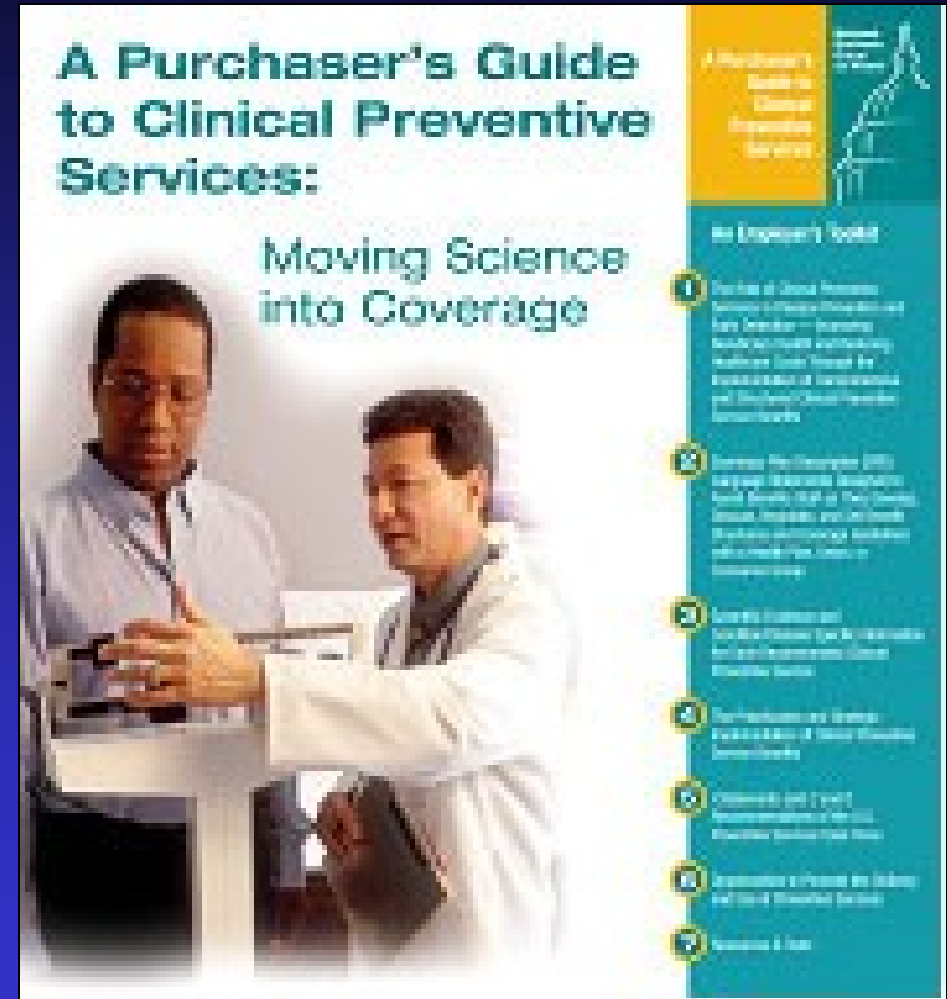
[www.cdc.gov/workplacehealthpromotion](http://www.cdc.gov/workplacehealthpromotion)

The screenshot shows a Windows Internet Explorer browser window displaying the CDC Workplace Health Promotion Toolkit and Portal. The browser's address bar shows the URL <http://webdev.nccd.cdc.gov/workplacehealthpromotion/index.htm>. The page header includes the CDC logo and the text "Centers for Disease Control and Prevention, Your Online Source for Credible Health Information". A search bar is located in the top right corner. Below the header is a navigation menu with an "A-Z Index" and a list of letters from A to Z, along with a hash symbol. The main content area is titled "Workplace Health Promotion" and features a sidebar on the left with a "Home" section containing links to "Making a Business Case", "Workplace Health Model", "Assessment", "Planning/Workplace Governance", "Health Topics Addressed", "Implementation", "Evaluation", "Help/FAQs", "Glossary", "References", "Links to Organizations", "Partners", and "Site Map". The main content area contains a large introductory paragraph about the workplace and health, a section titled "Recommendations and Guidelines" with a sub-section for "A Purchaser's Guide to Clinical Preventive Services: Moving Science into Coverage", and a section titled "Workplace Health Toolkit Model" which includes a diagram of the model's components. On the right side of the page, there are utility links for "Text size" (S, M, L, XL), "Email page", "Print page", and "Bookmark and share", as well as a "Contact Us" section with the CDC's address, phone number (800-CDC-INFO), TTY number, and email address ([cdcinfo@cdc.gov](mailto:cdcinfo@cdc.gov)).

# A Purchaser's Guide to Clinical Preventive Services

- Developed by CDC, the Agency for Healthcare Research and Quality (AHRQ), and the National Business Group on Health (NBGH)
- Recommended clinical preventive services for health benefits design
- Targeted to all health care purchasers (public and private)

Available at:  
<http://www.cdc.gov/business>






# CDC Workplace Tools and Resources


## Investing in Health

*Proven Health Promotion Practices for Workplaces*



- Tobacco Control
- Cancer Screening and Early Detection
- Physical Activity and Nutrition

### HEALTHCARE PROVIDER REMINDER SYSTEMS, PROVIDER EDUCATION, AND PATIENT EDUCATION




Working with Healthcare Delivery Systems to Improve the Delivery of Tobacco-Use Treatment to Patients  
AN ACTION GUIDE

Partnership for Prevention<sup>®</sup>  
*Shaping Policies • Improving Health*

**CDC**  
CENTERS FOR DISEASE CONTROL AND PREVENTION


TOBACCO-USE TREATMENT



## Reducing The Risk of Heart Disease and Stroke

A Six-Step Guide for Employers

**CDC**



Introducing a comprehensive online diabetes resource for the business community

## diabetes<sup>at</sup>work

common.  
serious  
costly...  
controllable.


Coverage	Coaching	Support
Incentives		
Wellness		

**PBGH**  
Pacific Business Group on Health

**Tobacco Cessation Benefit Coverage and Consumer Engagement Strategies:  
A California Perspective**

June 2008 (revised)

## Successful Business Strategies to Prevent Heart Disease and Stroke



TOOLKIT GUIDE

**Heart-Healthy and Stroke-Free Worksites**

**CDC**

# CDC LEAN Works!

www.cdc.gov/leanworks

LEAN Works: A Workplace Obesity Prevention Program | DNPAO | CDC - Windows Internet Explorer

http://www.cdc.gov/leanworks/

## CDC's LEAN Works! - A Workplace Obesity Prevention Program

### Step By Step

- Introduction
  - About CDC's LEAN Works!
  - Why
  - Plan
  - Build
  - Promote
  - Assess
- Additional Resources
  - Obesity Cost Calculator
  - Recommendations and Promising Practices
  - Tools Index
  - State Toolkits and Resources
  - Glossary
  - Site Map
  - References
  - Web Site Contributors



**LEAN Works!**  
LEADING EMPLOYEES TO ACTIVITY AND NUTRITION

In 2000, the total cost (direct and indirect) attributable to obesity was estimated to be \$117 billion,<sup>1</sup> and between 1987 and 2001, diseases associated with obesity accounted for 27 percent of the increases in medical costs.<sup>2</sup> Medical expenses for obese employees are estimated to be between 29 percent and 117 percent greater than medical expenses for employees with a healthy weight.<sup>3</sup>

### What is the cost of obesity to your organization?

"CDC's LEAN Works! Leading Employees to Activity and Nutrition" is a **FREE** web-based resource that offers interactive tools and evidence-based resources to design effective worksite obesity prevention and control programs, including an obesity cost calculator to estimate how much obesity is costing your company and how much savings your company could reap with different workplace interventions.

Be the first to benefit! **Get started with CDC's LEAN Works! today by choosing one of the stages below.**

Why	Plan	Build	Promote	Assess
 <p>Why should I create a program?</p>	 <p>Where should I begin?</p>	 <p>What program components and activities should I include?</p>	 <p>How do I maintain interest and motivation?</p>	 <p>Is my program working?</p>

Text size: [S](#) [M](#) [L](#) [XL](#)

- Email page
- Print page
- Bookmark and share
- Get email updates



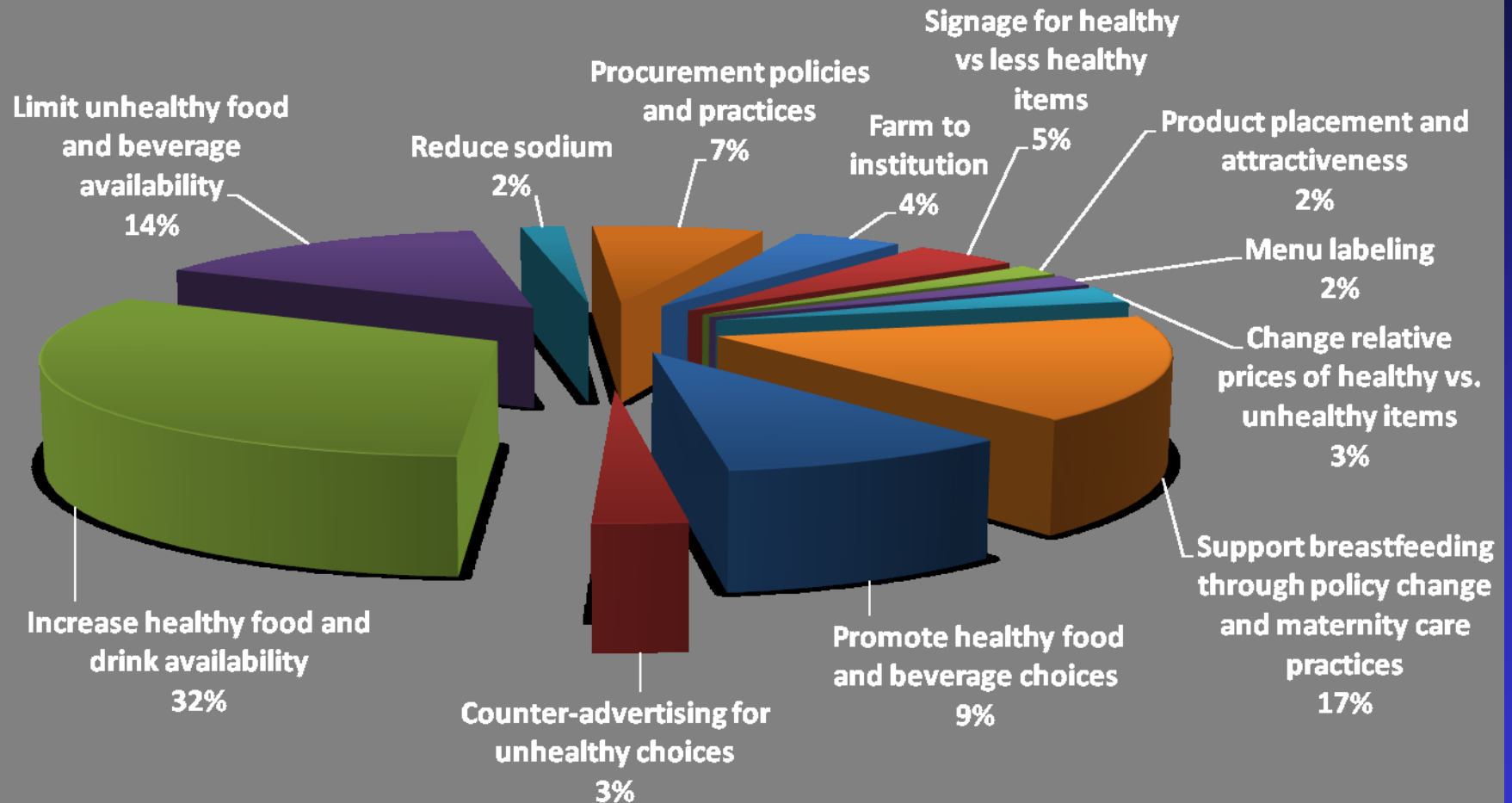
**LEAN Works!**  
LEADING EMPLOYEES TO ACTIVITY AND NUTRITION

### Contact Us:

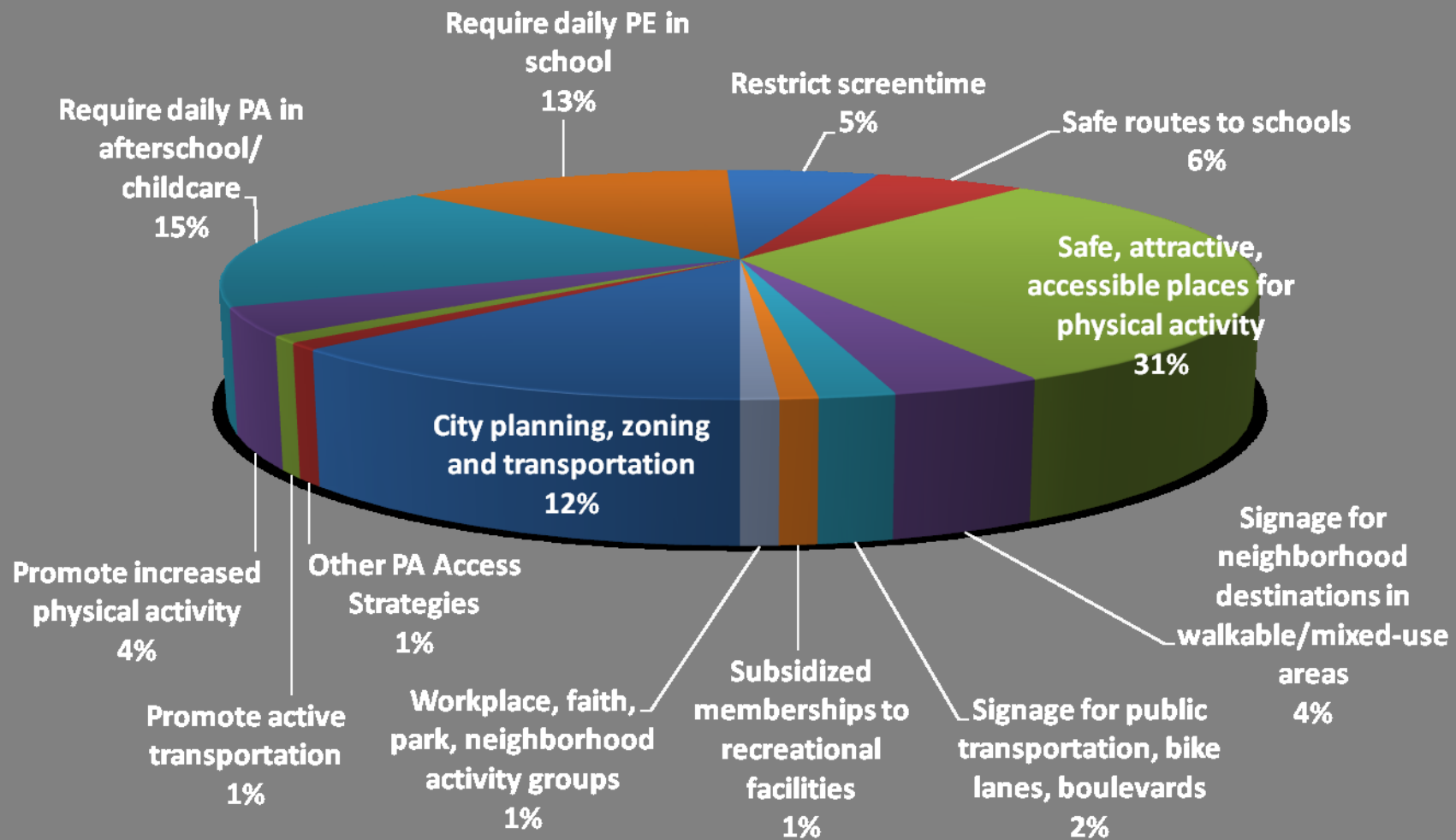
- Centers for Disease Control and Prevention  
1600 Clifton Rd  
Atlanta, GA 30333
- 800-CDC-INFO (800-232-4636)  
TTY: (888) 232-6348  
24 Hours/Every Day
- cdcinfo@cdc.gov

Trusted sites 100%

# Nutrition Strategies Across All States and Territories



# Physical Activity Strategies Across All States and Territories



# Federal Initiatives

## Let's Move

Empower parents

Healthier foods in schools

Physical activity

Access to affordable healthy food

Childhood Obesity Task Force

HHS Healthy Weight Task Force

National Action Plan for Physical Activity

Dietary Guidelines for Americans

Communities Putting Prevention to Work (CPPW)

Child Nutrition Reauthorization

Surgeon General's Call to Action on Breastfeeding

FTC Guidelines for Foods Marketed to Children

National Prevention, Health Promotion and Public Health Council

# Resources

[www.cdc.gov/workplacehealthpromotion](http://www.cdc.gov/workplacehealthpromotion)

[www.cdc.gov/workplacehealthpromotion/healthtopics/index.html](http://www.cdc.gov/workplacehealthpromotion/healthtopics/index.html)

**Webber A, Mercure S. Improving population health: the business community imperative. Prev Chronic Dis 2010;7(6).**

[www.cdc.gov/pcd/issues/2010/nov/10\\_0086.htm](http://www.cdc.gov/pcd/issues/2010/nov/10_0086.htm).

[www.cdc.gov/communitiesputtingpreventiontowork](http://www.cdc.gov/communitiesputtingpreventiontowork)