



Winnable Battles: Chronic Disease in the United States

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U.S. Department of Health and Human Services

Making A Difference in Chronic Disease Prevention
and Health Promotion

9 January 2012



Centers for Disease Control and Prevention

Division of Nutrition, Physical Activity, and Obesity

CDC Strategic Priorities

- Strengthen surveillance and epidemiology
- Support state, tribal, and local health departments
- Improve global health
- Advance evidence-based health policies
- Prevent illness, injury, disability, and premature death

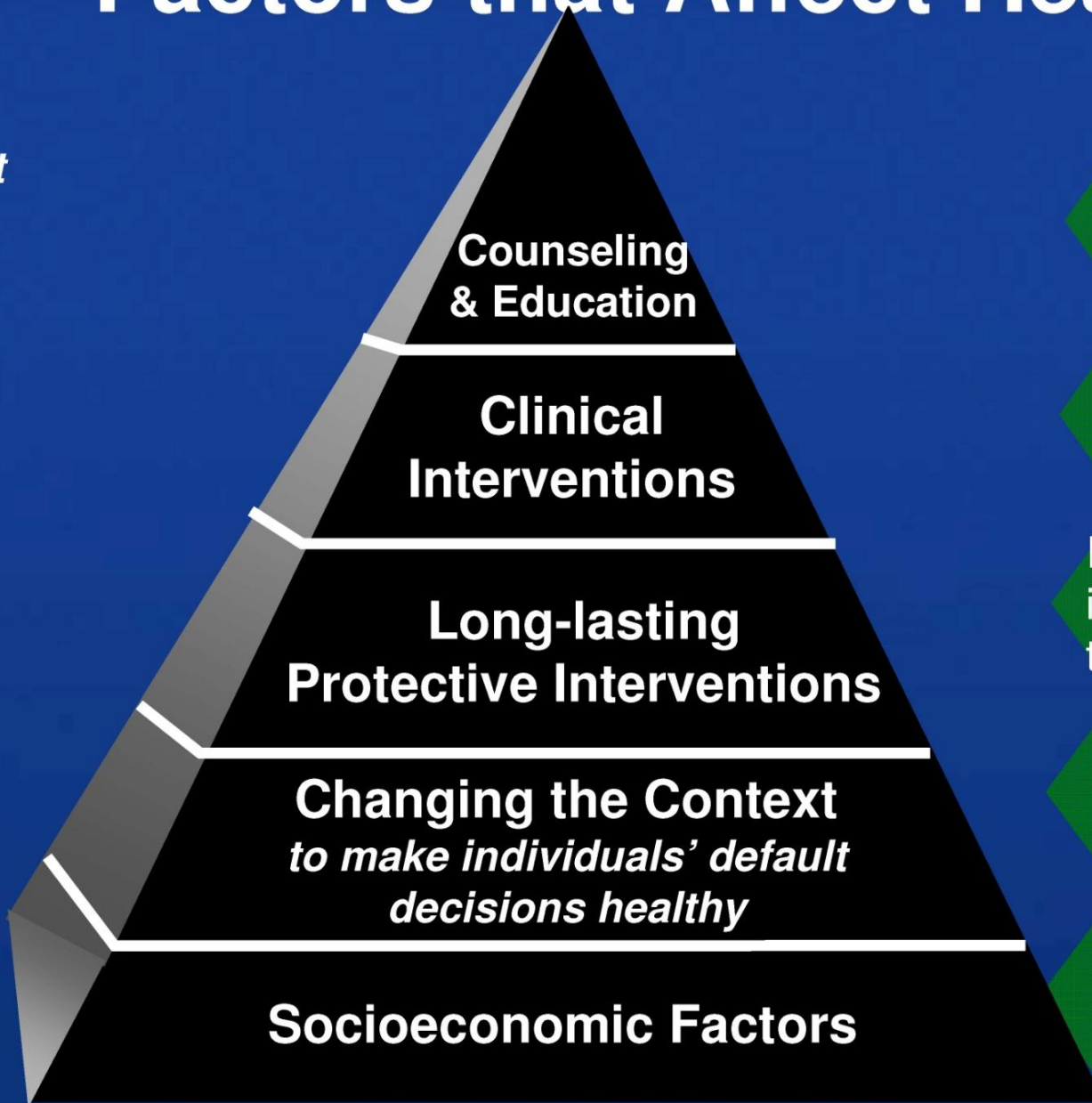
Factors that Affect Health

Examples

Smallest Impact



Largest Impact



Eat healthy, be physically active

Rx for high blood pressure, high cholesterol, diabetes

Immunizations, brief intervention, cessation treatment, colonoscopy

Fluoridation, 0g trans fat, iodization, smoke-free laws, tobacco tax

Poverty, education, housing, inequality



Key winnable public health battles for the United States

Tobacco



**Nutrition,
Physical Activity,
Obesity and
Food Safety**

**Healthcare-
Associated
Infections**



**Motor
Vehicle
Injuries**

**Teen
Pregnancy**



HIV

Chronic Diseases/Conditions

affected by tobacco, diet, physical inactivity

- Heart disease
- Stroke
- Cancer
 - Lung
 - Oral/pharyngeal
 - Colon
 - Breast
- Type 2 Diabetes
- Obesity
- Chronic kidney disease
- Osteoarthritis
- Poor reproductive outcomes
 - Infertility
 - Low birth weight
 - SIDS
- COPD
- Dental caries

Tobacco is still the leading preventable cause of death in U.S.

- ~46 million Americans still smoke
- Tobacco causes nearly 1 in 5 deaths in U.S. – >440,000 deaths/year, >1,000/day
- For each death, an estimated 20 more suffer tobacco-related illnesses
- Costs \$96 billion in annual medical expenses plus nearly \$100 billion in lost productivity
- Many Americans left unprotected, especially service industry workers; 26 states still lack smoke-free laws

“Obesity continues to be a major public health problem. We need intensive, comprehensive and ongoing efforts to address obesity. If we don't, more people will get sick and die from obesity-related conditions, such as heart disease, stroke, type 2 diabetes and certain types of cancer – some of the leading causes of death.”

– Thomas R. Frieden, MD, MPH

*Director, Centers for Disease Control and Prevention, Administrator,
Agency for Toxic Substances and Disease Registry*

What is the Weight of the Nation?

- Average American adult is more than 24 pounds heavier today than in 1960
- 23.5 million or 10.7% of all adults 20 year and older have diabetes
- About 55% of adults with diagnosed diabetes are obese

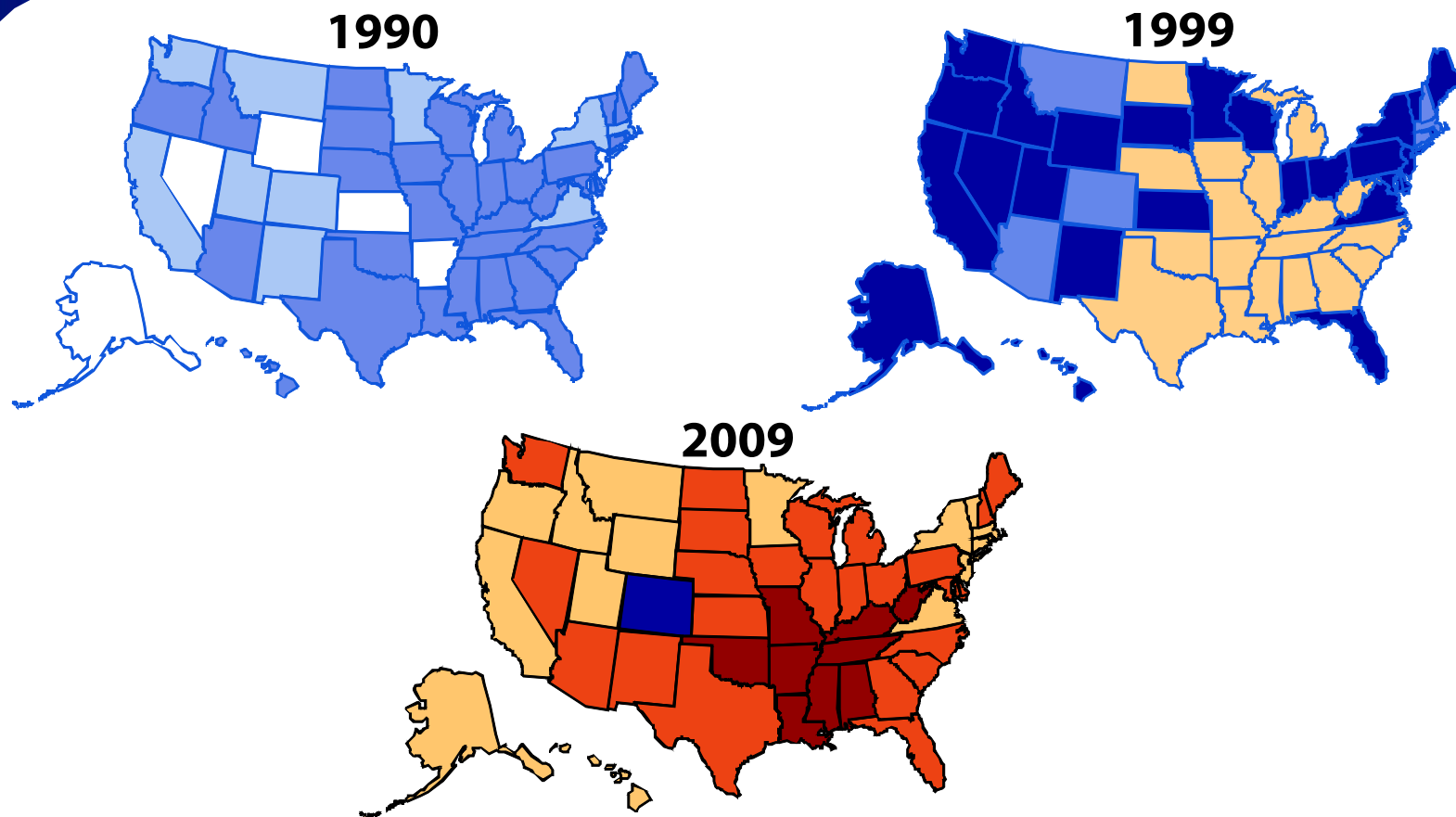


Photo source: www.obesityinamerica.org/

www.cdc.gov/nchs/data/ad/ad347.pdf
www.cdc.gov/diabetes/pubs/pdf/ndfs_2007.pdf
www.cdc.gov/mmwr/preview/mmwrhtml/mm5345a2.htm

Rapid Increases in Adult Obesity in the U.S.

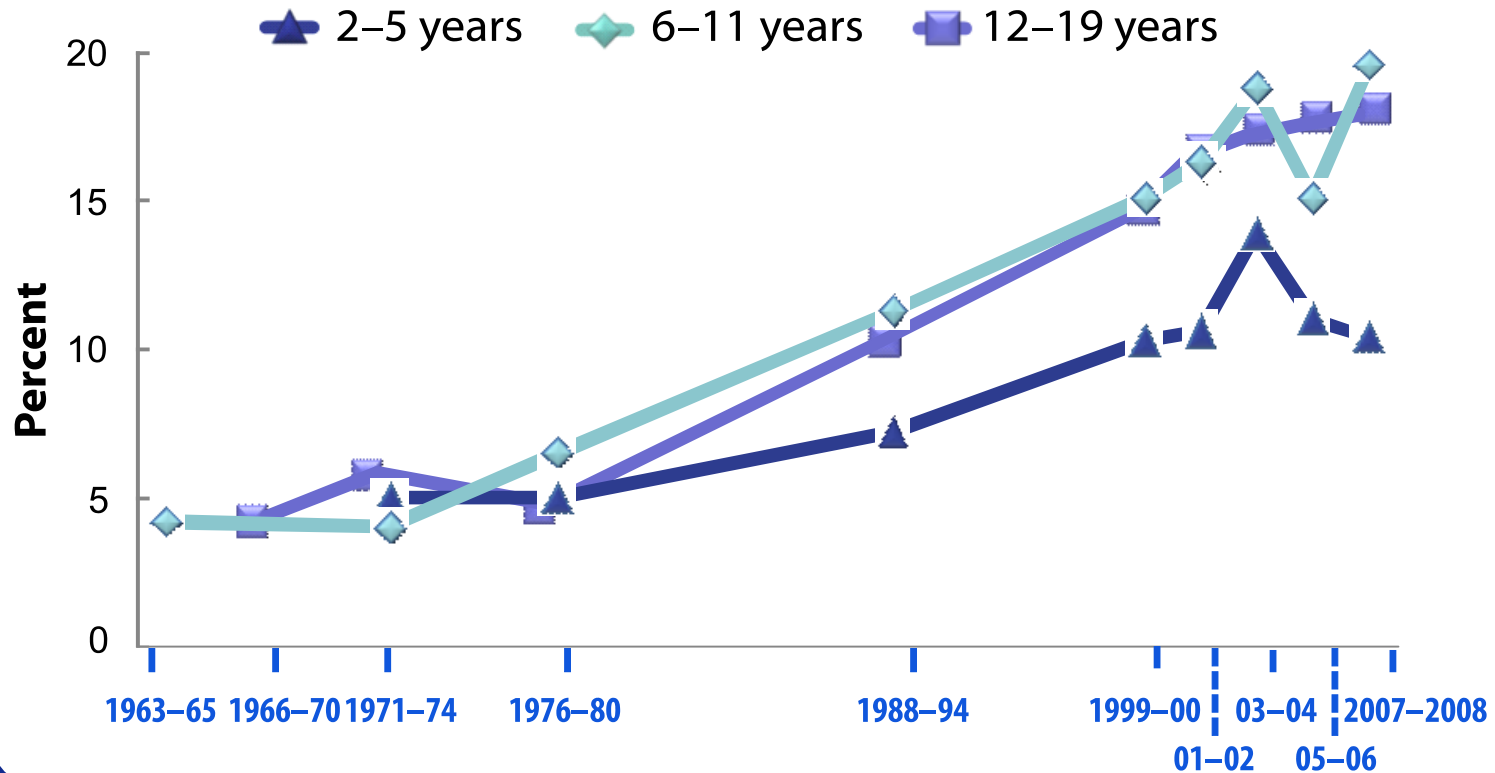
BRFSS: 1990, 1999, 2009



Legend for obesity prevalence:

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

Rapid Increases in Obesity Among U.S. Youth *NHANES 1963-2008*



National Health Examination Surveys II (ages 6-11) and III (ages 12-17).
National Health and Nutrition Examination Surveys I, II, III and 1999-2008.
www.cdc.gov/nchs/data/hestat/obesity_child_07_08/obesity_child_07_08.htm.

Shifts in Dietary patterns in the United States

- Relative prices of more healthful foods have increased faster than prices for less healthful foods.
- Increased portion size
- Increased consumption of processed foods typically higher in sodium
- Increased schools vending and a la carte foods

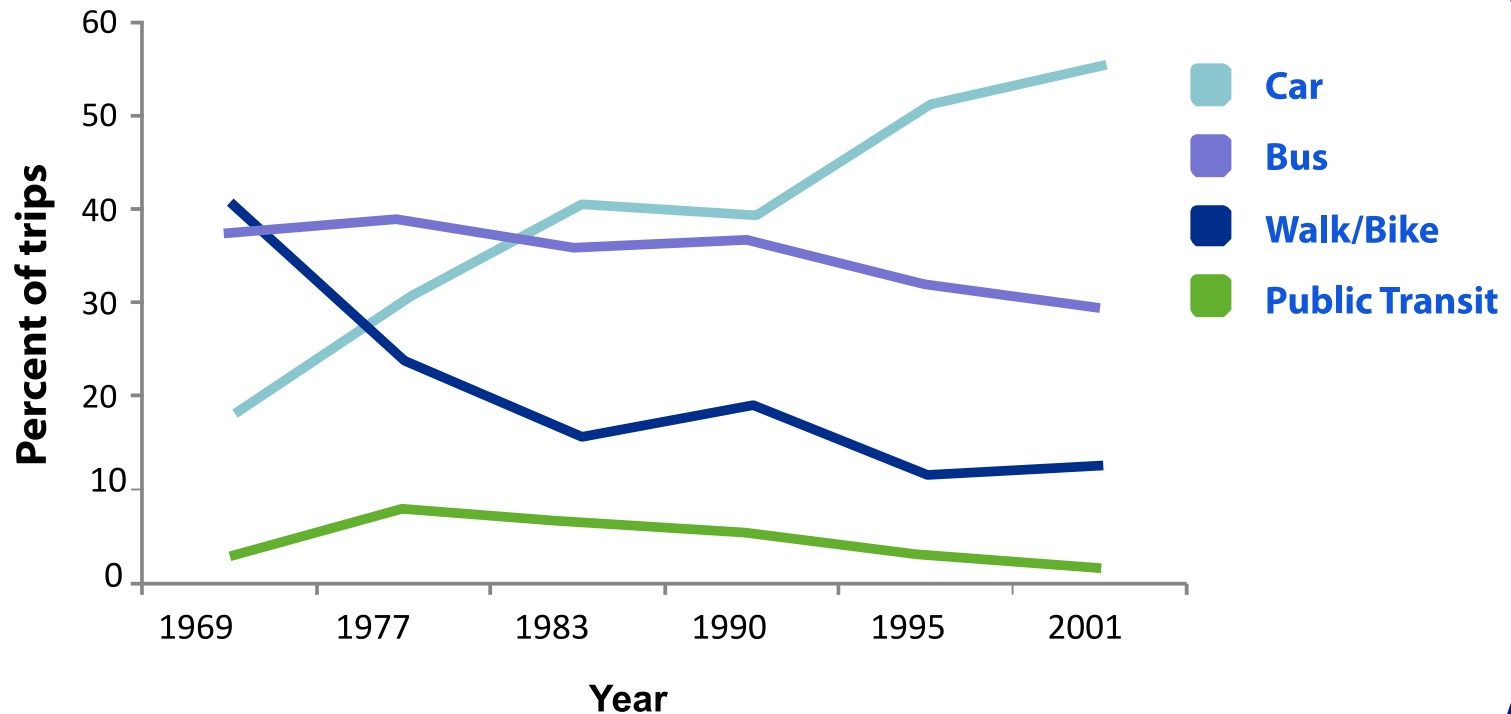


Food Consumed in 1952 by an Average American Family of Four



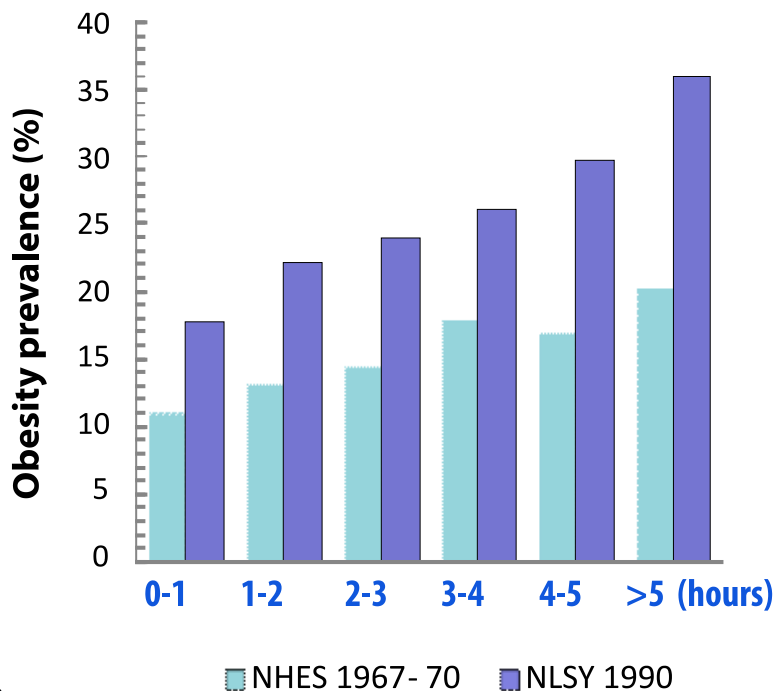
Active Transportation by Youth has Decreased

Mode for Trips to School – National Personal Transportation Survey



Increased TV Viewing Increases Childhood Obesity Prevalence

TV hours per day (youth report)



- **\$1.6 billion/year spent on marketing of foods and beverages to youth**
- **Television viewing associated with consumption of foods advertised on television**
- **70% children 8-18 years and 30% children <3 year old have TVs in their rooms**

NHES: National Household Education Surveys.
NLSY: National Longitudinal Survey of Youth.

Costs of Adult Obesity Are Increasing

	1998 <i>(in 2008 dollars)</i>	2006 <i>(in 2008 dollars)</i>
Total Costs	\$75 billion/yr	\$147 billion/yr
% of U.S. Medical Costs	6.5%	9.1%

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

Prevention saves health care costs

- ❑ Annual health care costs are higher for people with chronic diseases
 - People who are obese: \$1,400 higher
 - Smokers: \$2,000 higher
 - People with diabetes: \$6,600 per year
- ❑ Increasing use of a set of core preventive services to 90% of recommended levels could save \$3.7 billion annually in medical costs

Finkelstein EA et al. Health Affairs 2009;28:w822-w831.

Solberg LI et al. Am J Prev Med 2006;31:62-71.

American Diabetes Association. Diabetes Care 2008;31:596-615.

Maciosek MV et al. Health Affairs 2010;29:1656-1660.

Making Healthy Living Easier

Individual

- Culture
- Skills
- Knowledge
- Time

Environment

- Economic
- Physical Access
- Communication
- Marketing
- Social

Healthy eating
& physical
activity

Environment



Policy, Systems, Environmental Change

- Modifying the setting to make healthy choices practical and available to all community members
- “People don’t decide to become obese”
- Where one lives affects how one lives
- Making healthy living easier

Policy Change

- Policy change includes the passing of laws, ordinances, resolutions, mandates, regulations, or rules.
 - Examples:
 - Establishing a school district policy that prohibits junk food in school fundraising drives.
 - Passing a law allowing residents to plant community gardens in vacant lots

Systems Change

- System change involves change made to the rules within an organization.
 - Examples: Creating a community plan to account for health impacts of new projects
 - Creating a certification system for fundraising efforts to ensure they are in line with school wellness policy

Environmental Change

- Environmental change is a transformation made to the physical surroundings.
 - Examples: Municipality undertakes a planning process to ensure better pedestrian and bicycle access to main roads and parks
 - Community development includes neighborhood corridors with pedestrian accommodations meeting the needs of older adults

The Playbook for Chronic Disease Prevention

Includes addressing:

- ❑ Tobacco
- ❑ Nutrition
- ❑ Physical Activity

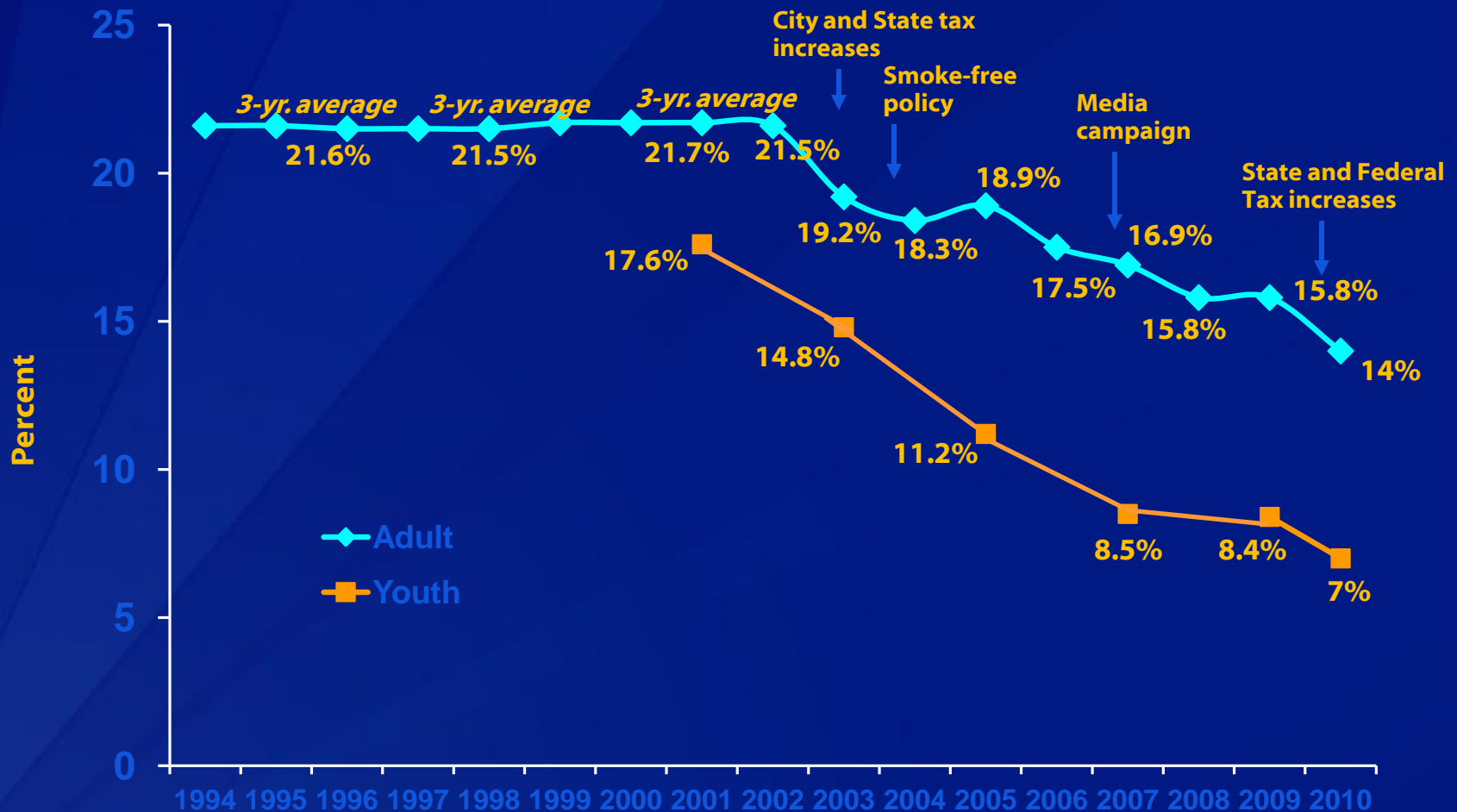


The Tobacco Prevention and Control Playbook:

- Sustained funding of comprehensive programs
- Tobacco price increases
- 100% smoke-free policies
- Aggressive media campaigns
- Cessation access
- Comprehensive advertising restrictions



Immediate impact of a comprehensive approach: youth and adult smoking rates in NYC



Source: BRFSS 1993 – 2001; NYC Community Health Survey 2002 – 2010; and NYC YRBS 2001 – 2010

Marlboro

Now in 100's

3.59

KOOL

MAVERICK

MAVERICK

MAVERICK

SEVENTY-TWO

NEVER SHORT ON FLAVOR

3.09

MAVERICK

MAVERICK

MAVERICK

BUYING TOBACCO FOR MINORS COULD COST YOU.

1.14

CAMEL CAMEL

1.59

GR

GR

5-hour ENERGY

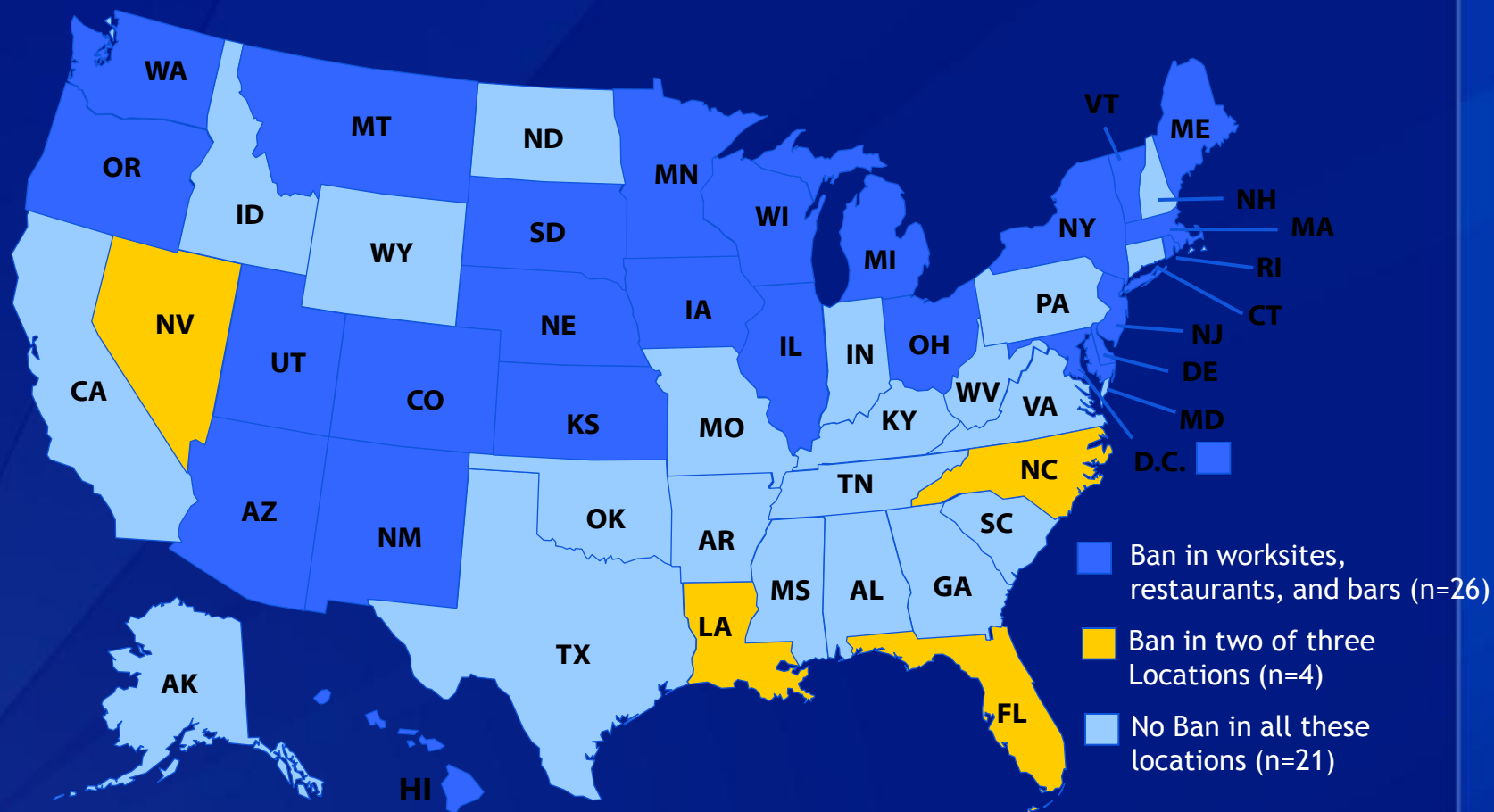
BUTTERFLY

BUTTERFLY

BUYING TOBACCO FOR MINORS COULD COST YOU.

State Smoke-Free Indoor Air Laws for Private Worksites, Restaurants, and Bars

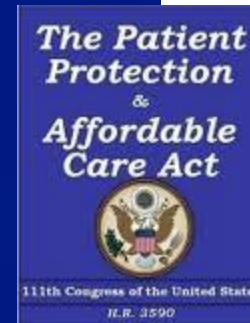
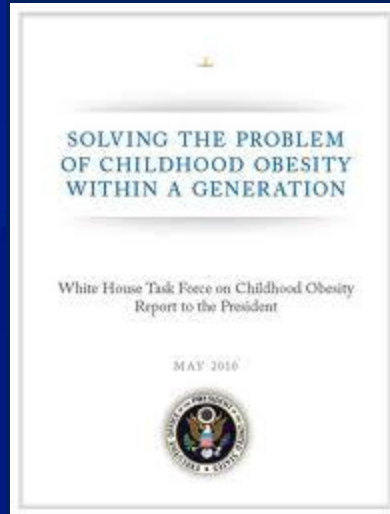
Laws in effect in 2011



N=51

Source: Centers for Disease Control and Prevention. State Tobacco Activities Tracking and Evaluation (STATE) System.
Available at: <http://www.cdc.gov/tobacco/statesystem>.

National Interest in Healthy Eating



Healthy Eating Playbook

■ **Energy density**

- Procurement policies
- Apply nutrition standards in child care and schools
- Increase number of healthy food retail outlets in underserved areas and improve access

■ **Fruits and vegetables**

- Increase access through retail stores
- Support Farm to Institution policies
- Leverage food policy councils

■ **Unhealthy drinks**

- Ensure access to safe and good-tasting water
- Reduce accessibility of sugar drinks in child care and schools

Transforming Schools and Child Care



Transforming Community Food Access



Restricting Unhealthy Beverages



Nutrition Standards and Guidelines



Improve Healthy Eating

32 CPPW communities are implementing policies to improve foods offered within various community settings.



Over **3 million Americans** have benefitted from the increase in healthier food options available within schools, churches, hospitals, and when attending local government-sponsored meetings or events.

Healthy Food Access



26 CPPW communities are improving access to healthy food retailers, including farmers' markets, and also improving access to healthy foods sold in local corner stores and other retail outlets.

Over **2 million Americans** have benefitted from increased availability of healthier foods

What makes active settings?

1. **Variety of uses within walk, bike, & transit distance.**
2. **Connecting facilities: trails, sidewalks, bike lanes, transit.**
3. **Destinations are functional & inviting for active transport.**
4. **Safe & accessible for all ages, incomes, abilities**

www.thecommunityguide.org
www.activelivingresearch.org



Physical Activity Playbook

- ❑ **Planning, zoning ordinance, subdivision regulations focused on healthy designs.**
- ❑ **Complete Streets design guidelines.**
- ❑ **Trails & greenways: Transportation networks, not just recreation.**
- ❑ **Active schools: Safe Routes to School, shared use agreements.**
- ❑ **Comprehensive School Based Physical Activity Program**

Improve Built Environment

31 CPPW communities are increasing access to physical activity through urban design and land use policies.



Over **17.8 million Americans** live in a community that has leveraged their CPPW investment to improve land use policies that contribute toward the provision of sidewalks, mixed use development, and parks with adequate crime prevention measures.

A Triple Bottom Line!



Prosperity



Planet

Healthy
Economy

Healthy
Environment

Healthy
People

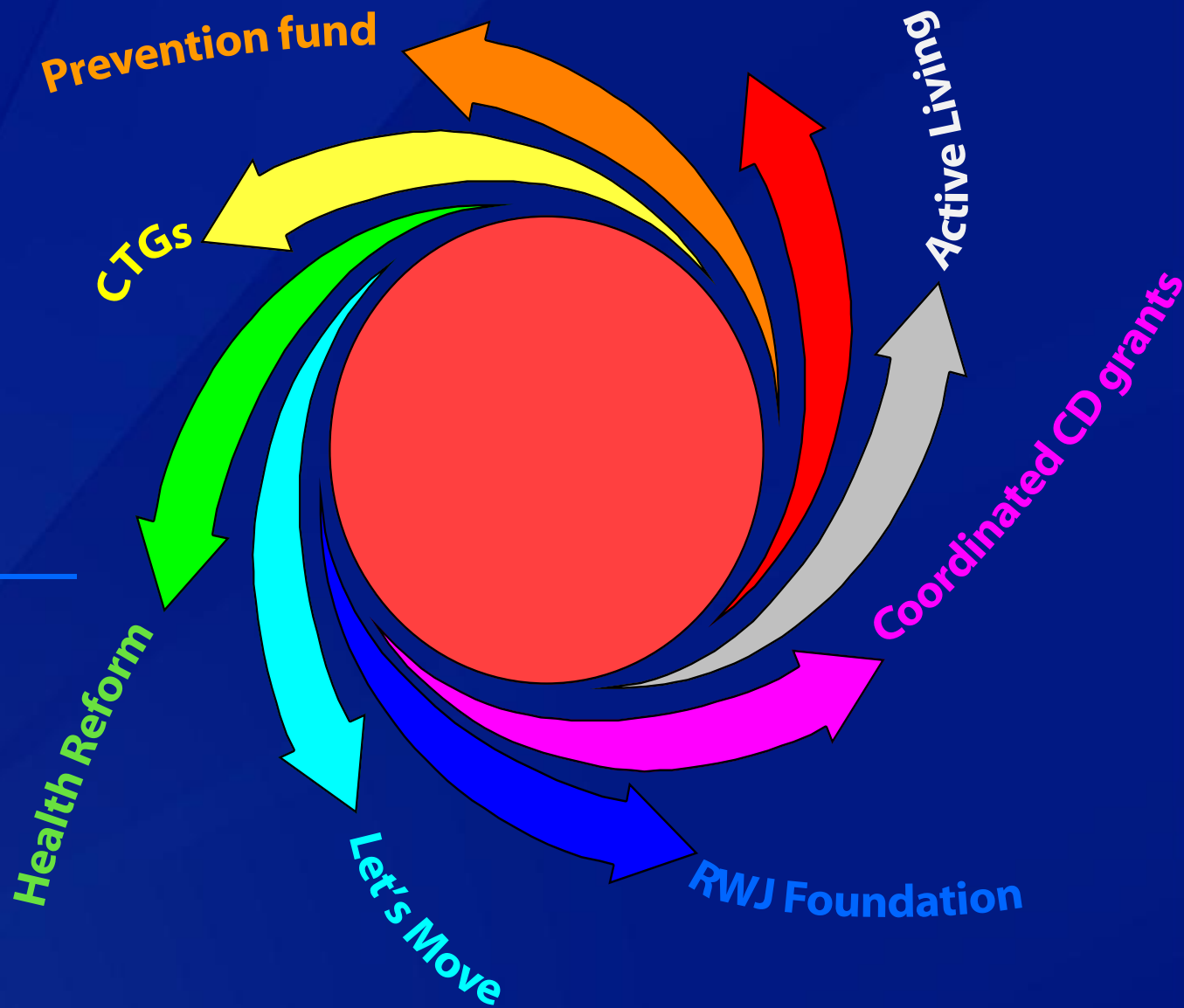


People

What public health can do

- Help win these public health battles
 - Priority issues at local, state, and federal levels
 - Known, effective, scalable interventions
 - Potential for large impact on health
- Collective and focused efforts
 - Identify optimal strategies at all levels, across all sectors
 - Rally resources and partnerships
 - Communicate about successes and challenges along way
 - Accelerate efforts to make measureable impact on health

Creating a Movement



CDC's Coordinated Chronic Disease Program

- Ensure that every state has a strong foundation for chronic disease prevention & control
- Provide leadership to work collaboratively across diseases and risk factors
- Maximize reach of categorical chronic disease programs by leveraging shared services in states
 - Maximize efficiency and effectiveness of categorical program dollars
- Provide seamless delivery of services to grantees

CDC's Coordinated Chronic Disease Program

- I. Develop a state chronic disease plan & establish a statewide coalition of partners
 - Address multiple CDs and risk factors simultaneously
 - Leverage resources and action from statewide coalition
- II. Create a management plan for leadership in CD prevention , addressing
 - Leadership, Surveillance and epidemiology, Communication, Policy and environmental change, Health systems work, Technical Assistance to communities

CDC's Coordinated Chronic Disease Program

III. Focus activities in four key areas

- Epidemiology and surveillance
- Policy and environmental change action
- Work with health systems to improve effective delivery and use of preventive services
- Community-clinical linkages to better manage chronic conditions

Collaboration

- Develop a broad coalition to extend the reach and impact of state programs
 - Coalition should undertake policy work to support communities in creating healthful environments
- Develop linkages with health care systems
 - include Medicaid, FQHCs, hospitals, providers, health plans, housing and transportation organizations, etc.

Core Activities: “the three buckets”

POLICY AND ENVIRONMENTAL CHANGE

Improve nutrition & physical activity in schools, worksites, communities

HEALTH SYSTEMS CHANGE

Improve delivery & use of selected clinical preventive services

COMMUNITY-CLINICAL LINKAGES

Support chronic disease self-management & improve quality of life

CDC's Vision for a Coordinated CD Program

- Increased coordination and spread
- Protect chronic disease prevention
- Ensure that every state has a strong foundation for chronic disease prevention & control
- Maximize the reach of states' categorical CD programs
- Improve how CDC works with states



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