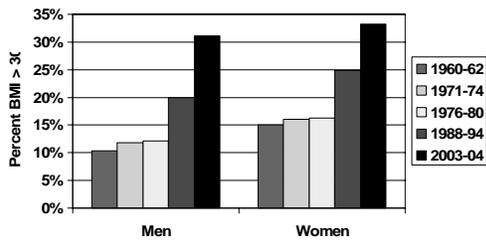


Environmental and Policy Approaches to the Obesity Epidemic

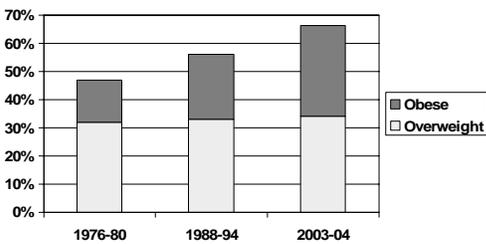
Thomas Farley, MD MPH
Department of Community Health Sciences

Trends in Prevalence of Obesity U.S., 1960-2004



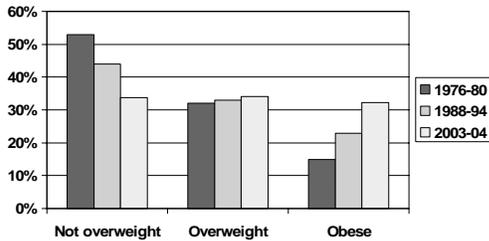
Source: NHES and NHANES, JAMA 2006;1549-55

Trends in Prevalence of Overweight and Obesity U.S., 1976 - 2004

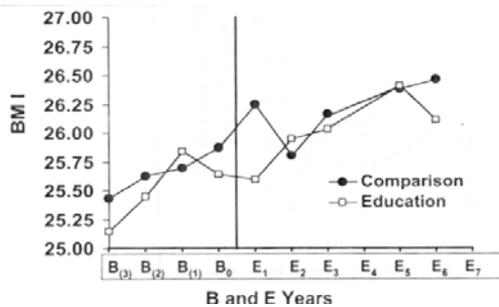


Source: NCHS

Curve-Shifting View of Obesity Trends, Adults >= 20



Failure of Education to Prevent Obesity Minnesota Heart Health Program



Jeffrey RW: Am J Health Behav 2001;25:252

Approaches to Smoking Prevention

- School-based and community-based education programs to prevent smoking generally have small, temporary effects
- “Environmental” approaches have good evidence of effectiveness
 - Advertising restrictions
 - Counter-advertising
 - Taxes
 - Indoor smoking bans

The Modern Environment and Obesity

- Our everyday world encourages us to:
 - Expend few calories
 - Consume more calories than we need

Environmental Features Which Decrease Energy Expenditure

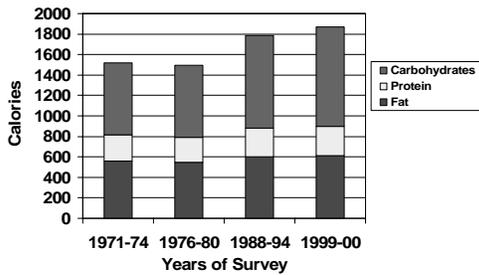
- Television
- Cars
- Designs of cities/towns that encourage driving and inhibit walking
- Elevators and escalators
- Computers



Environmental Changes to Increase Caloric Expenditure

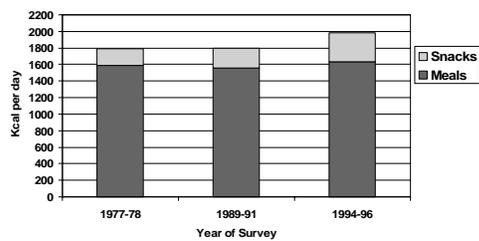
- Mandate sidewalks and bike lanes on all roads
- Change zoning to encourage mixed-use, high-density, grid-layout development
- Build more neighborhood parks and playgrounds
- Change building codes and building designs to make stairways accessible and attractive
- Establish recreational programs for children and adults

Trends in Caloric Intake for Women NHANES, 1971-1990



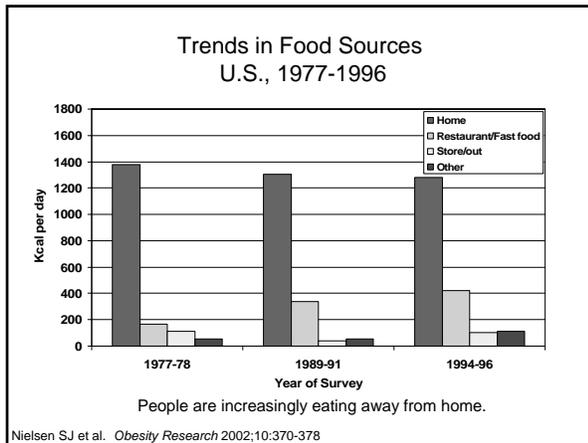
MMWR 2004;53:80-82

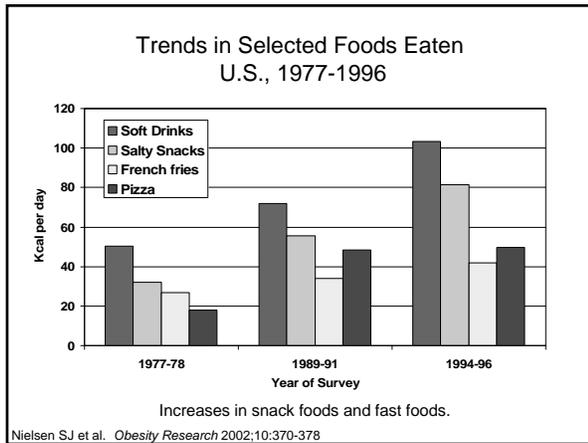
Trends in Eating Patterns U.S., 1977-1996



Most of the increase in calories comes from snacks.

Nielsen SJ et al. *Obesity Research* 2002;10:370-378



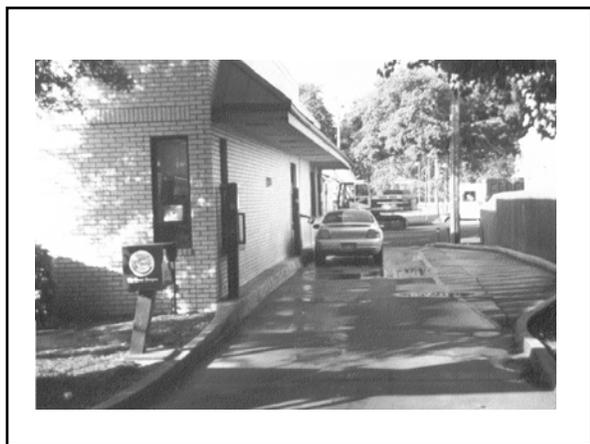


Environmental Factors That Increase Intake of Calories and Fat

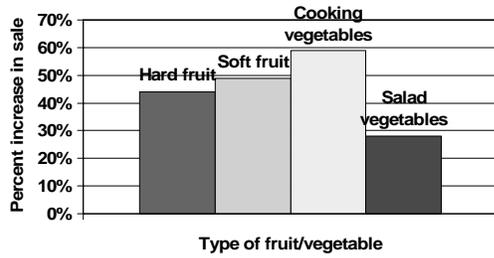
- Availability and low cost of high-calorie, high-fat foods
- Advertising of high-calorie, high-fat foods



Calories in Fast Food		
Burger King		<u>Calories</u>
Value Meal	Whopper	660
\$3.39	Small French Fries	250
	<u>22 oz. Soft drink</u>	<u>280</u>
	Total	1,190
King Size Value Meal	Whopper	660
\$4.19	Medium French Fries	400
	<u>32 oz. Soft Drink</u>	<u>410</u>
	Total	1,470

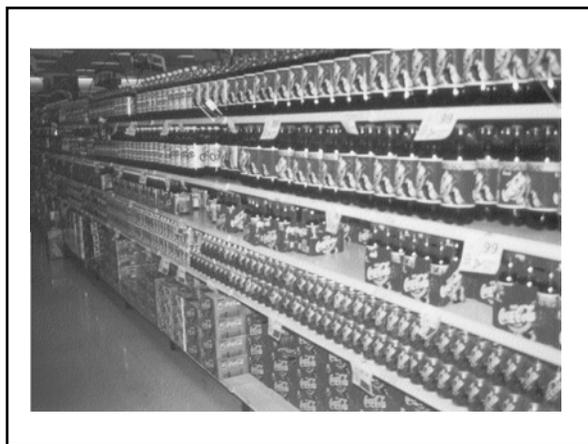


Increase in Sales of Fruits and Vegetables
Caused by Doubling of Display Space



Curhan R. J Marketing Research 1974;11:286-94



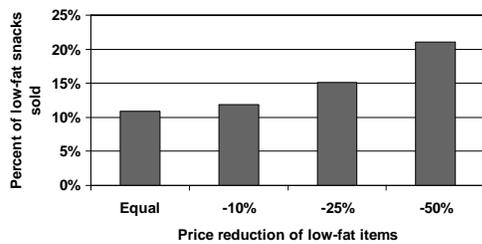




Environmental Changes to Decrease Intake Calories

- Taxes on calorie-dense snack food
- Use income from taxes for:
 - Subsidies for fruits and vegetables

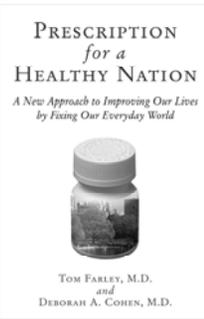
Effect of Price on Food Purchases from Vending Machines



French SA, et al. AJPH 2001;91:112

Environmental Changes to Decrease Intake of Calories

- Taxes on high-fat, high-calorie food
- Use income from taxes for:
 - Subsidies for fruits and vegetables
 - Media campaign promoting fruits and vegetables
 - Counter-advertising against junk food
- Regulation on calorie density of food
- Limitations on number and location of:
 - Fast-food restaurants
 - Soft-drink and snack vending machines
- Ban drive-through windows
- Ban advertising junk food to kids
- Ban soft drinks and junk food from schools
- Remove soft drinks and junk food from workplaces



More at www.healthscaping.org
