

Agricultural Policy and Subsidy Distribution: Nutrition and Public Health Implications

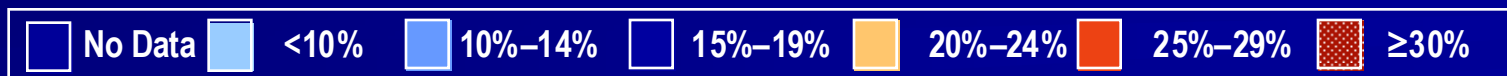
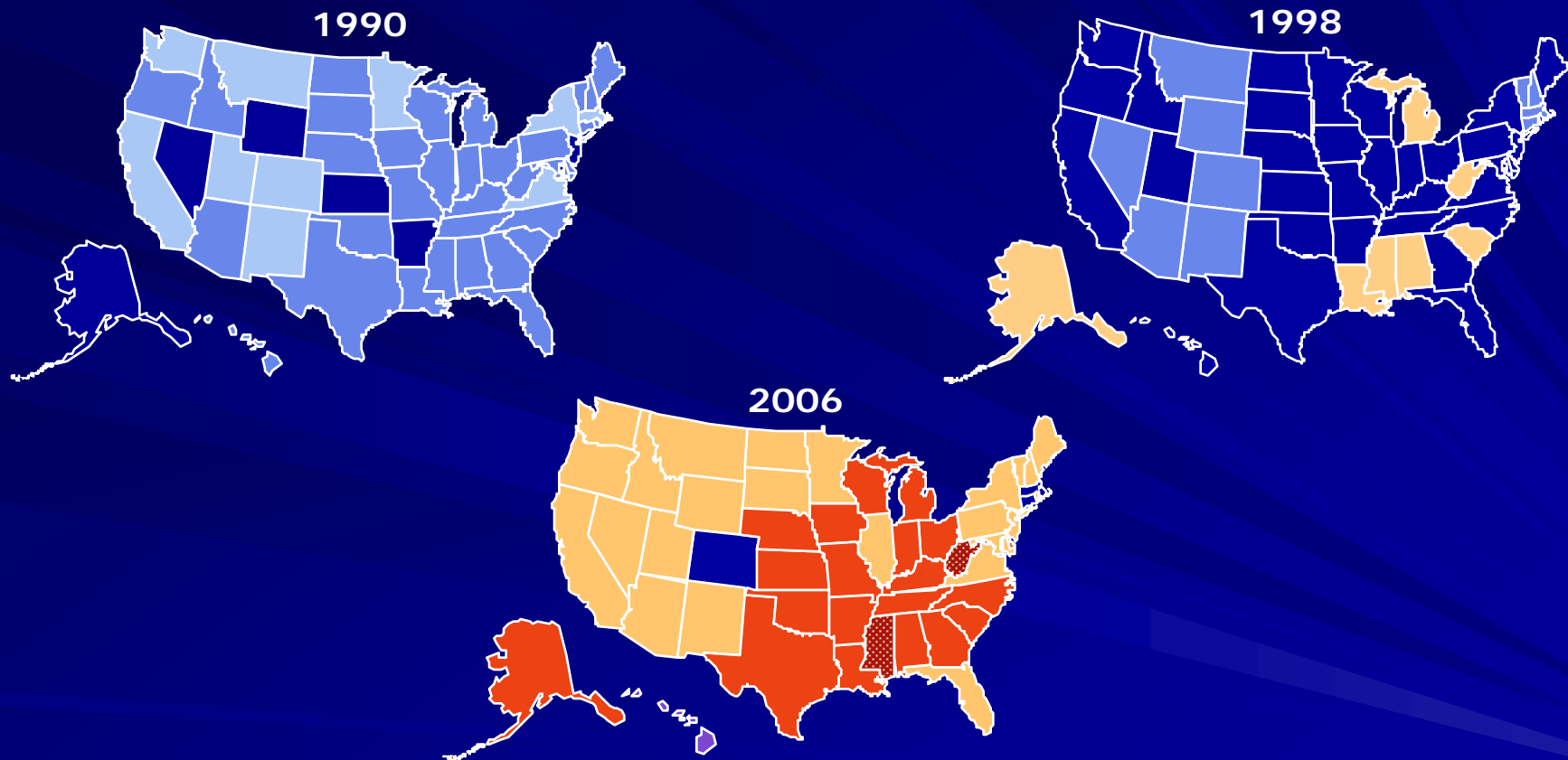
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Physicians Committee for Responsible Medicine

Obesity Trends* Among U.S. Adults

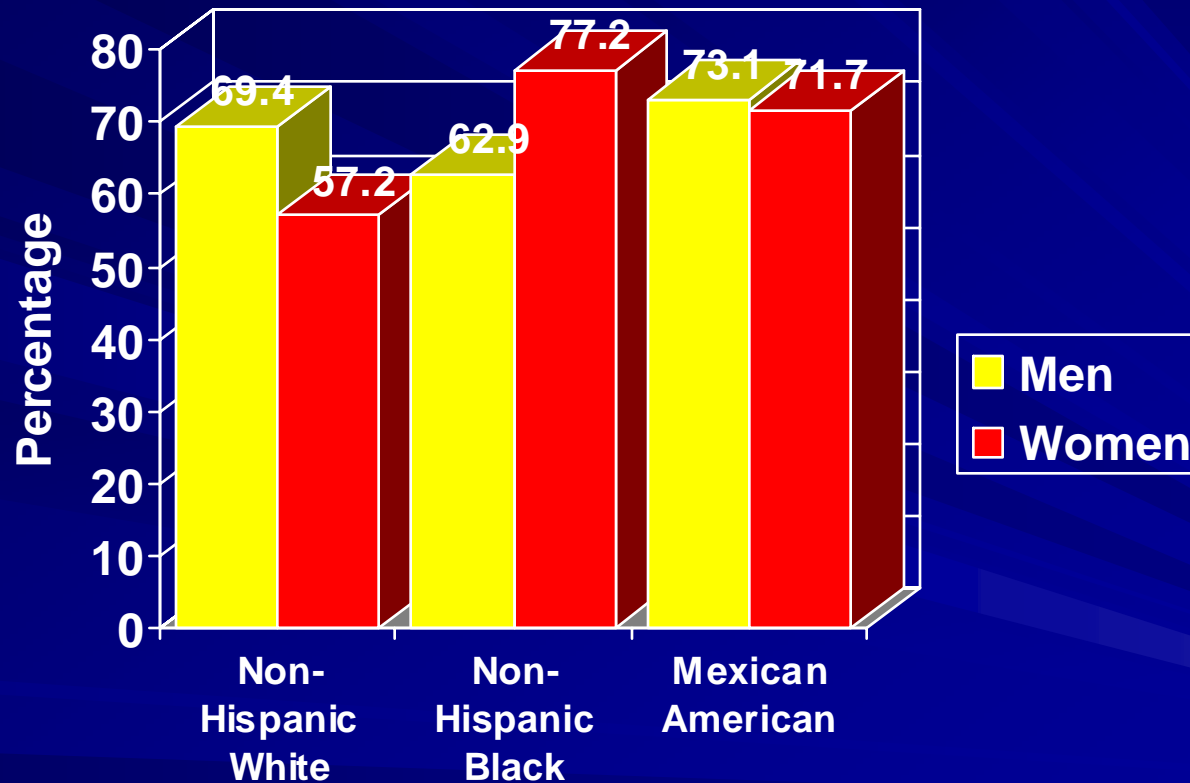
BRFSS, 1990, 1998, 2006

(*BMI ≥ 30 , or about 30 lbs. overweight for 5'4" person)



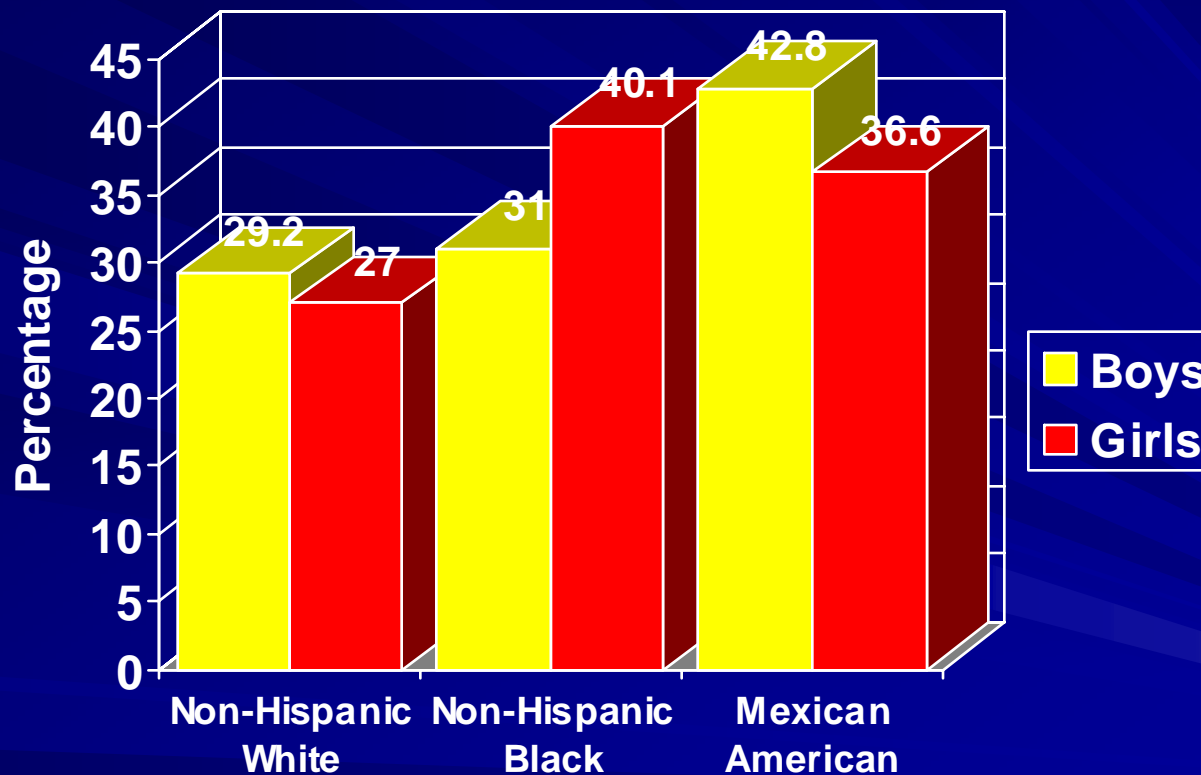
Behavior Risk Factor Surveillance System, Centers for Disease Control and Prevention, 2006.

Overweight and Obesity: U.S. Adults



Hedley AA, et al. *JAMA* 2004; 291(23): 2847-2850.

Overweight and At Risk for Overweight: U.S. Children, Age 6-19 years



Hedley AA, et al. *JAMA* 2004; 291(23): 2847-2850.

Diseases Associated with Overweight and Obesity

Hypertension

Dyslipidemia

Type 2 diabetes

Coronary heart disease

Stroke

Gallbladder disease

Osteoarthritis

Sleep apnea and other respiratory diseases

Malignancy (endometrial, breast, and colon)

Centers for Disease Control and Prevention, 2006.

Economic Costs



\$117 billion: Direct and indirect costs of obesity¹

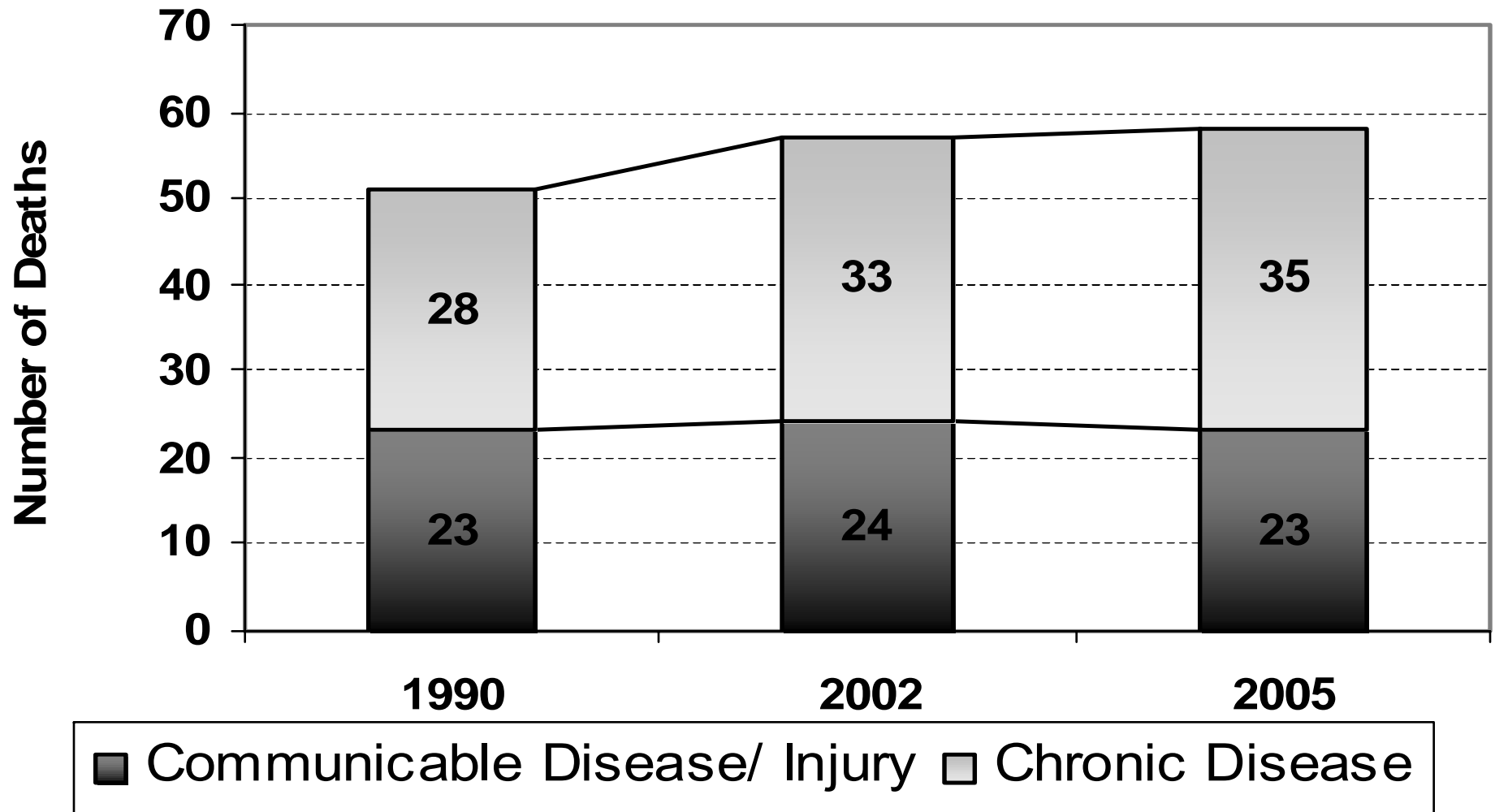
\$556 billion/year: Direct and indirect costs of obesity, heart disease, cancer, stroke, and diabetes²

75% of \$1.9 trillion spent on health care for people with chronic diseases¹

1. Centers for Disease Control and Prevention, 2006.

2. Center for Science in the Public Interest, 2006.

Global Mortality, in Millions^{1,2,3}



1. *Preventing Chronic Diseases: A Vital Investment: WHO Global Report*. World Health Organization, 2005.

2. *The World Health Report 2003: Shaping the Future*. World Health Organization, 2003.

3. Murray CJL, Lopez AD, 1996. *The Global Burden of Disease: A Comprehensive Assessment of Mortality and Disability from Diseases, Injuries, and Risk Factors in 1990 and Projected to 2020*.

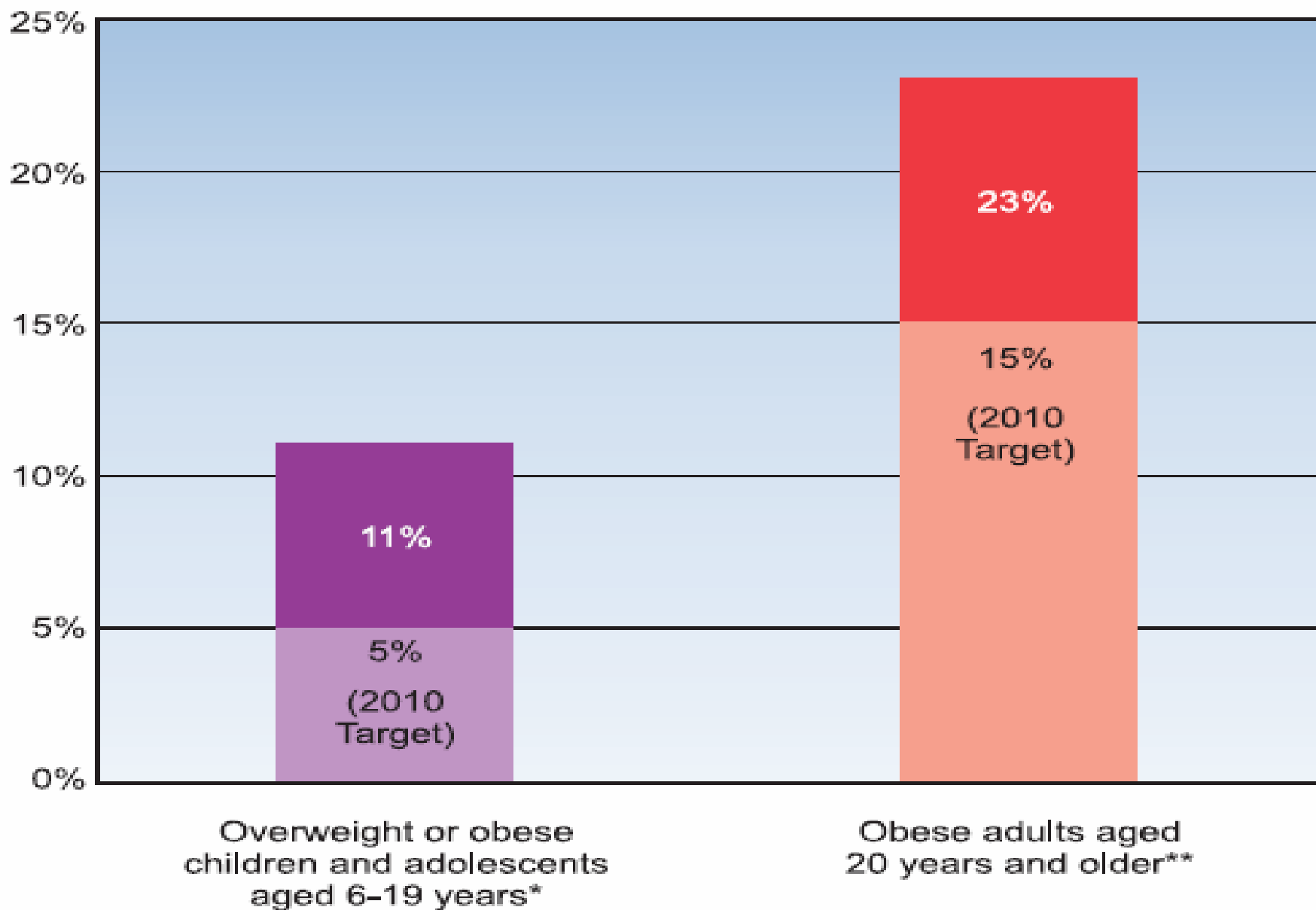
Healthy People 2010 Objectives

19-3c. Reduce the proportion of children and adolescents who are overweight or obese.

19-2. Reduce the proportion of adults who are obese.

U.S. Department of Health and Human Services. Healthy People 2010: Understanding and Improving Health. 2nd ed. Washington, DC: U.S. Government Printing Office, November 2000.

Overweight and obesity, United States, 1988–94



U.S. Department of Health and Human Services. Healthy People 2010: Understanding and Improving Health. 2nd ed. Washington, DC: U.S. Government Printing Office, November 2000.

Macronutrient determinants of overweight and obesity

1975 to 2001

Multiethnic cohort, Hawaii

	Men, OR (95% CI) N=48,984	Women, OR (95% CI) N=52,715
Total energy (500 kcal/d)	1.06 (1.04 to 1.07)	1.14 (1.13 to 1.14)
Fat (1 g/100 kcal)	1.15 (1.06 to 1.24)	1.42 (1.30 to 1.55)
Protein (1 g/100 kcal)	1.25 (1.15 to 1.35)	1.48 (1.40 to 1.56)
Carbohydrate (1 g/100 kcal)	1.01 (0.99 to 1.04)	1.14 (1.09 to 1.20)
Dietary fiber (1 g/200 kcal)	0.82 (0.69 to 0.98)	0.77 (0.66 to 0.91)

Maskarinec G, et al. *Obesity* 2006;14(4):717-26.

Food determinants of overweight and obesity

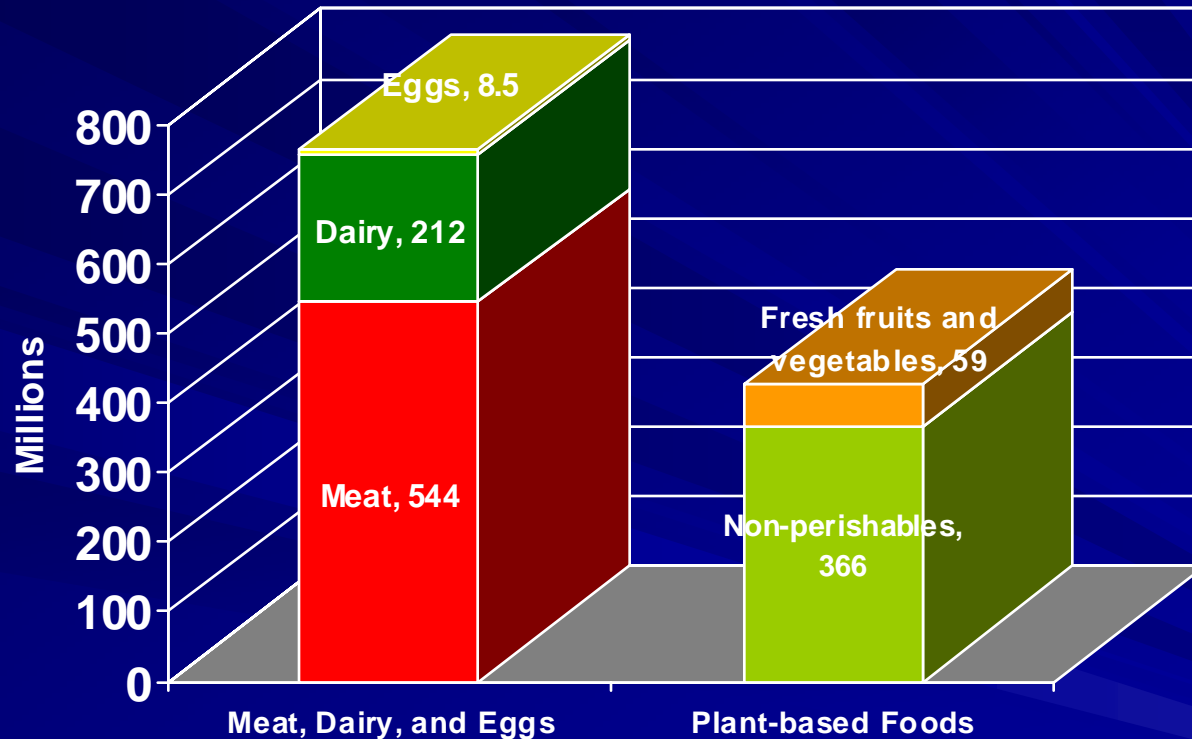
1975 to 2001

Multiethnic cohort, Hawaii

Food intake (1 g/100 kcal)	Men, OR (95% CI) N=45,251	Women, OR (95% CI) N=49,319
Beef and pork	1.21 (1.19 to 1.23)	1.20 (1.17 to 1.22)
Processed meat	1.28 (1.24 to 1.33)	1.35 (1.30 to 1.40)
Poultry	1.04 (1.03 to 1.06)	1.06 (1.04 to 1.07)
Fish	1.02 (1.00 to 1.05)	1.03 (1.01 to 1.05)
Vegetables	0.95 (0.93 to 0.98)	0.97 (0.95 to 0.99)
Fruit	0.98 (0.96 to 1.00)	0.96 (0.94 to 0.98)

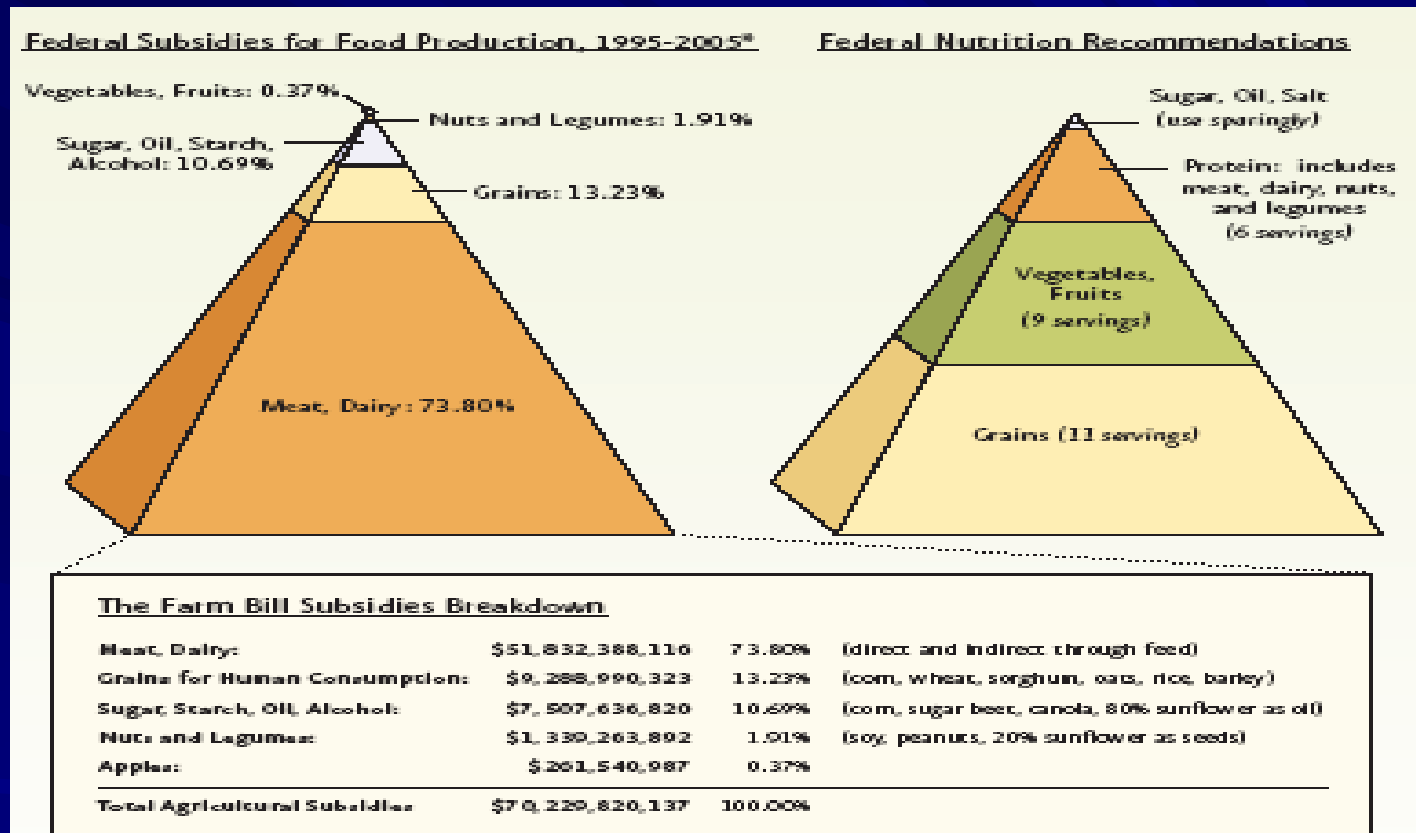
Maskarinec G, et al. *Obesity* 2006;14(4):717-26.

Direct Federal Outlays for Food Programs^{1,2,3,4,5}



1. Agricultural Marketing Service, United States Department of Agriculture. Available at <http://www.ams.usda.gov/cp/index.htm>.
2. FOIA request to KCCO-07-043, received 3/15/07.
3. Food and Nutrition Service powerpoint presentation. Available at http://www.fns.usda.gov/fdd/ppts/slides/ACDA06/UsdaAcda06_TriAgencyOverview-CM3.ppt.
4. Food and Nutrition Service Nutrition Program Fact Sheet. Available at www.fns.usda.gov/cnd/milk/AboutMilk/SMPFactSheet.pdf.
5. Food and Nutrition Service DOD Fresh Fact Sheet. Available at http://www.fns.usda.gov/fdd/programs/dod/DoD_FreshFruitandVegetableProgram.pdf.

How Food Production Subsidies Compare with U.S. Dietary Guidelines^{1,2,3,4,5,6,7}



1. Environmental Working Group. Farm Subsidy Database. Available at <http://www.ewg.org/farm/region.php?fips=00000>.
2. United Soybean Board. 2001 Soy Stats. Available at http://www.soystats.com/2001/page_23.htm.
3. World Resources Institute, EarthTrends. Meat Consumption: Grain Fed to Livestock as a Percent of Total Grain Consumed. Available at: http://earthtrends.wri.org/searchable_db/index.php?theme=8&variable_ID=1834&action=select_countries.
4. Good, Darrell. "Corn: A Record Crop," Grain Price Outlook, No. 7, University of Illinois Extension. Available at <http://www.famdoc.uiuc.edu/marketing/grainoutlook/html/101703/101703.html>.
5. Myers, Robert, Thomas Jefferson Agricultural Institute. Available at http://www.jeffersoninstitute.org/pubs/sunflower_guide.pdf.
6. United States International Trade Commission Publication 3350, September 2000. Available at <http://www.usitc.gov/er/nl2000/ER0922X1.htm>.
7. United States Department of Agriculture, Industry Statistics, 1995-2005.

Corporate savings from low feed prices, 1997-2005

Tyson \$2.59 billion

Smithfield \$2.2 billion

Gold Kist \$1.3 billion

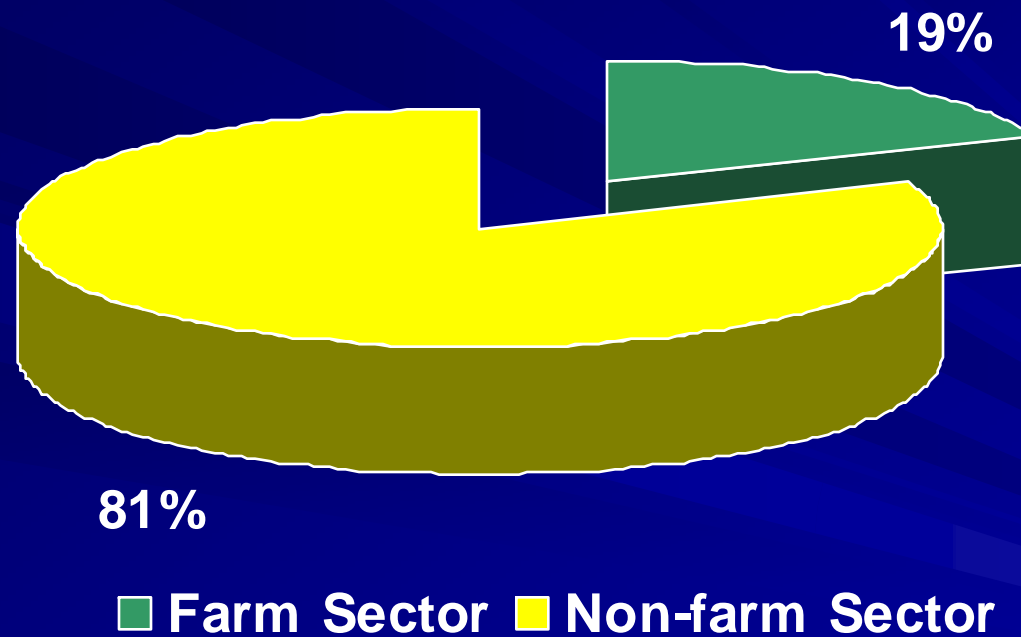
Pilgrim's Pride \$1.01 billion

ConAgra Poultry \$900 million

Tufts University, Global Development and Environmental Institute.

Memo: Individual Companies' Gains from Low Feed Prices. January 26, 2007.

Farm Value Proportion of the Food Dollar



Tufts University, Global Development and Environmental Institute.

Memo: Individual Companies' Gains from Low Feed Prices. January 26, 2007.

U.S.D.A. Legal Obligations

School Lunch Programs

“...the Secretary shall give special emphasis to high protein foods, meat, and meat alternates (which may include domestic seafood commodities and their products).”

42 U.S.C.A. § 1755c(1)(D).

Commodity Benefits Programs

“...shall be used by the Secretary of Agriculture only to”:

- ▶ Encourage exportation;
- ▶ “Encourage the domestic consumption of such commodities or products by diverting them...among persons in low income groups”; **AND**
- ▶ Reestablish farmers’ purchasing power.

Federal Nutrition Assistance Programs

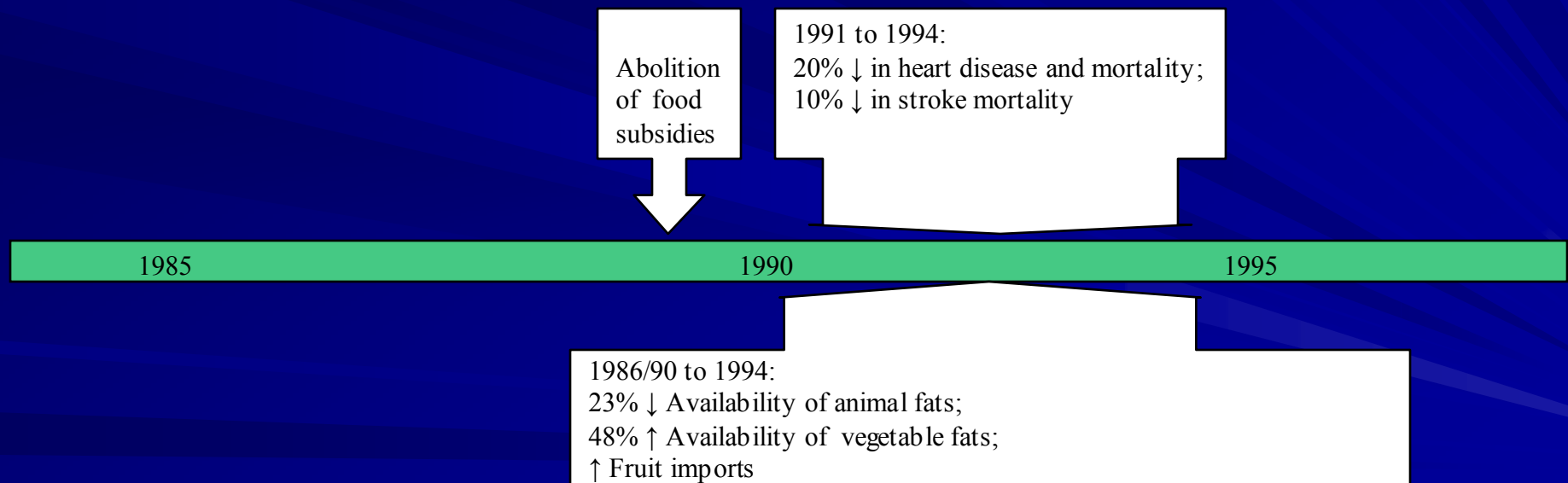
- ▶ National School Lunch Program
- ▶ Nutrition Services Incentive Program
- ▶ Emergency Food Assistance Program
- ▶ Commodity Supplemental Food Program
- ▶ DOD Fresh Fruit and Vegetable Program
- ▶ Food Distribution Disaster Assistance
- ▶ Food Distribution Program on Indian Reservations
- ▶ Special Supplemental Nutrition Program for Women, Infants, and Children

Food and Nutrition Service, United States Department of Agriculture.

Effect of Cost on Consumption

Inverse relationship between energy density and daily diet cost¹

Polish subsidies²



1. Drewnowski A. *Epidemiol Rev* 2007;29:160-171.

2. Zatonski WA, et al. *BMJ* 1998;316:1047-1051.

Aligning Agricultural Policy with Public Health Priorities

“RESOLVED, That our American Medical Association support efforts (1) to reduce health disparities by basing food assistance programs on the health needs of their constituents, (2) to provide vegetables, fruits, legumes, grains, vegetarian foods, and healthful nondairy beverages in school lunches and food assistance programs, and (3) to ensure that federal subsidies encourage the consumption of products low in fat and cholesterol.”

American Medical Association House of Delegates, 2007.

Opportunities for Improvement



- ▶ Base agricultural commodity purchases on health considerations.
- ▶ Eliminate subsidies that promote products high in fat and cholesterol.
- ▶ Provide vegetables, fruits, legumes, grains, vegetarian foods, and healthful nondairy milk alternatives in food assistance programs.

Thank you.