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Agricultural Outlook Forum
U.S. Department of Agriculture

Presented: February 24-25, 2011

Women's Health, Physical Activity, and the Dietary Guidelines

Miriam E. Nelson

Women's Health, Physical Activity, and the Dietary Guidelines

Miriam E. Nelson, Ph.D.

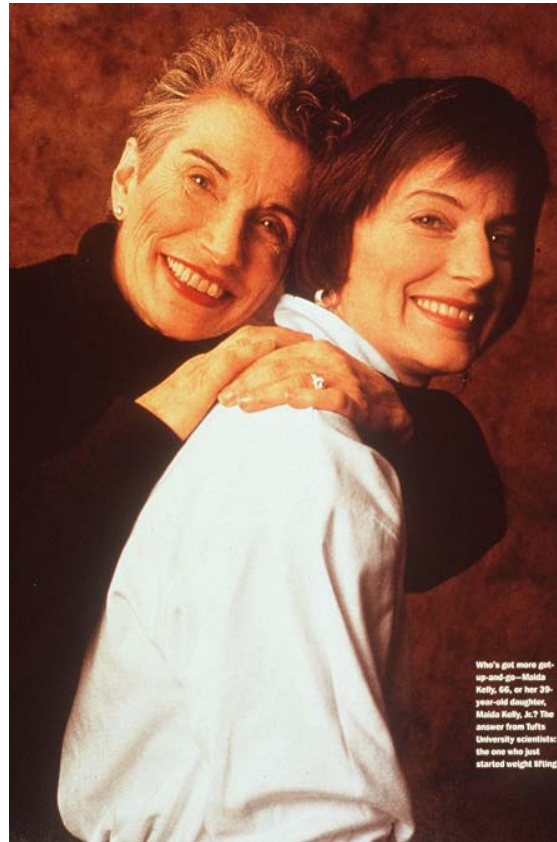
Director, John Hancock Research Center on Physical
Activity, Nutrition, and Obesity Prevention

Friedman School of Nutrition, Tufts University

Talk Outline

- Obesity is women's health
- Physical Activity Guidelines
- Dietary Guidelines
- What we can do to reverse the trend

Physical Activity and Nutrition is Important for all Ages: Children, Adults, Older Adults, Oldest Old

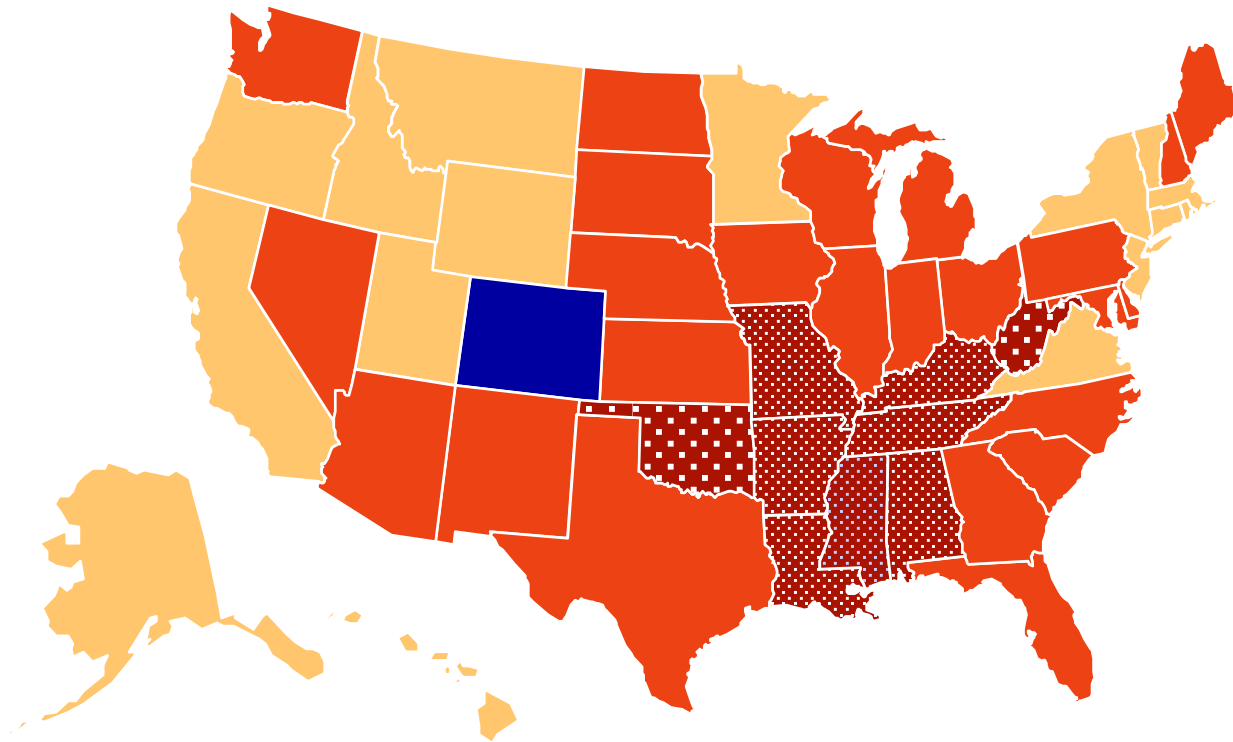


Who's got more get-up-and-go—Maida Kelly, 66, or her 25-year-old daughter, Maida Kelly, Jr.? The answer from Tufts University scientists: the one who just started weight lifting.



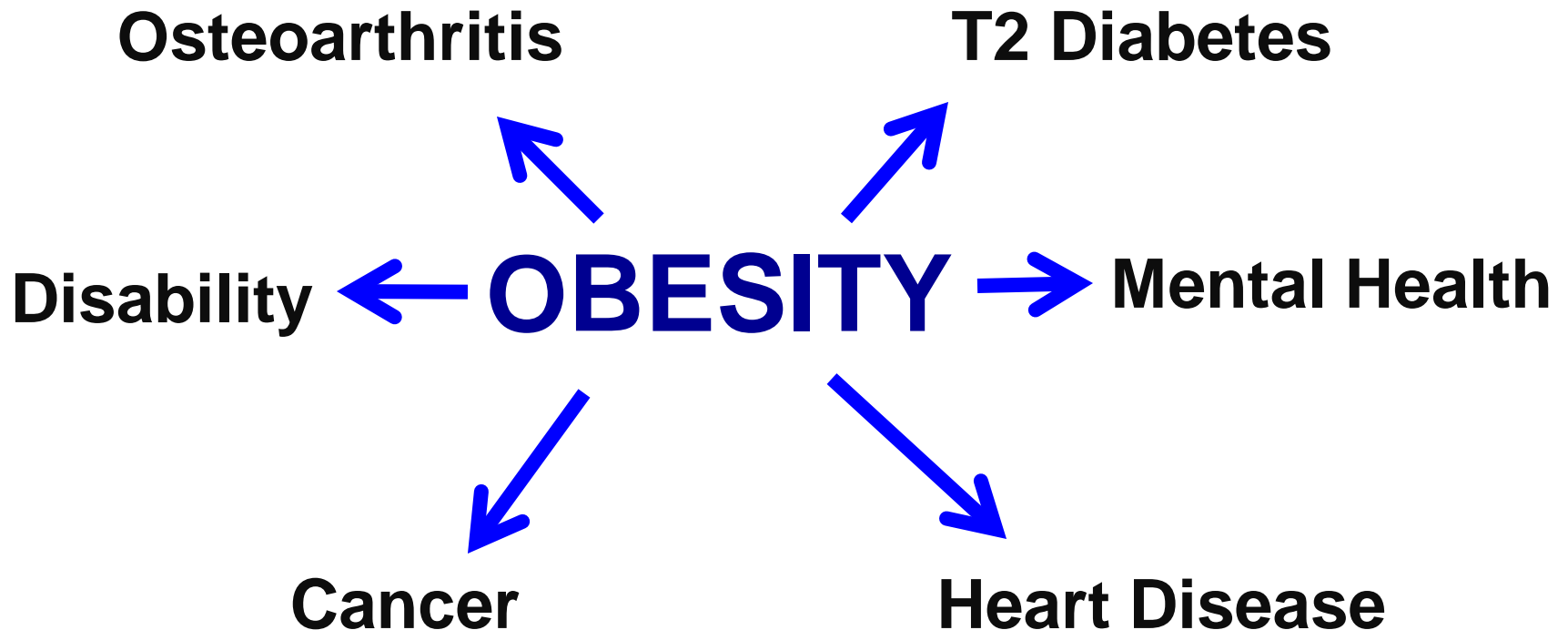
Obesity Trends* Among U.S. Adults

BRFSS, 2009



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

Obesity is Women's Health



Contributors

- Food: a global shift in the food environment towards foods that are higher in fat, added sugars, and highly processed
- Physical activity: an increasingly sedentary lifestyle due to the nature of many forms of work, changing modes of transportation, time spent in front of screens, and increasing urbanization

Sources: World Health Organization, February 2011

What about physical activity?



Physical Activity Trends

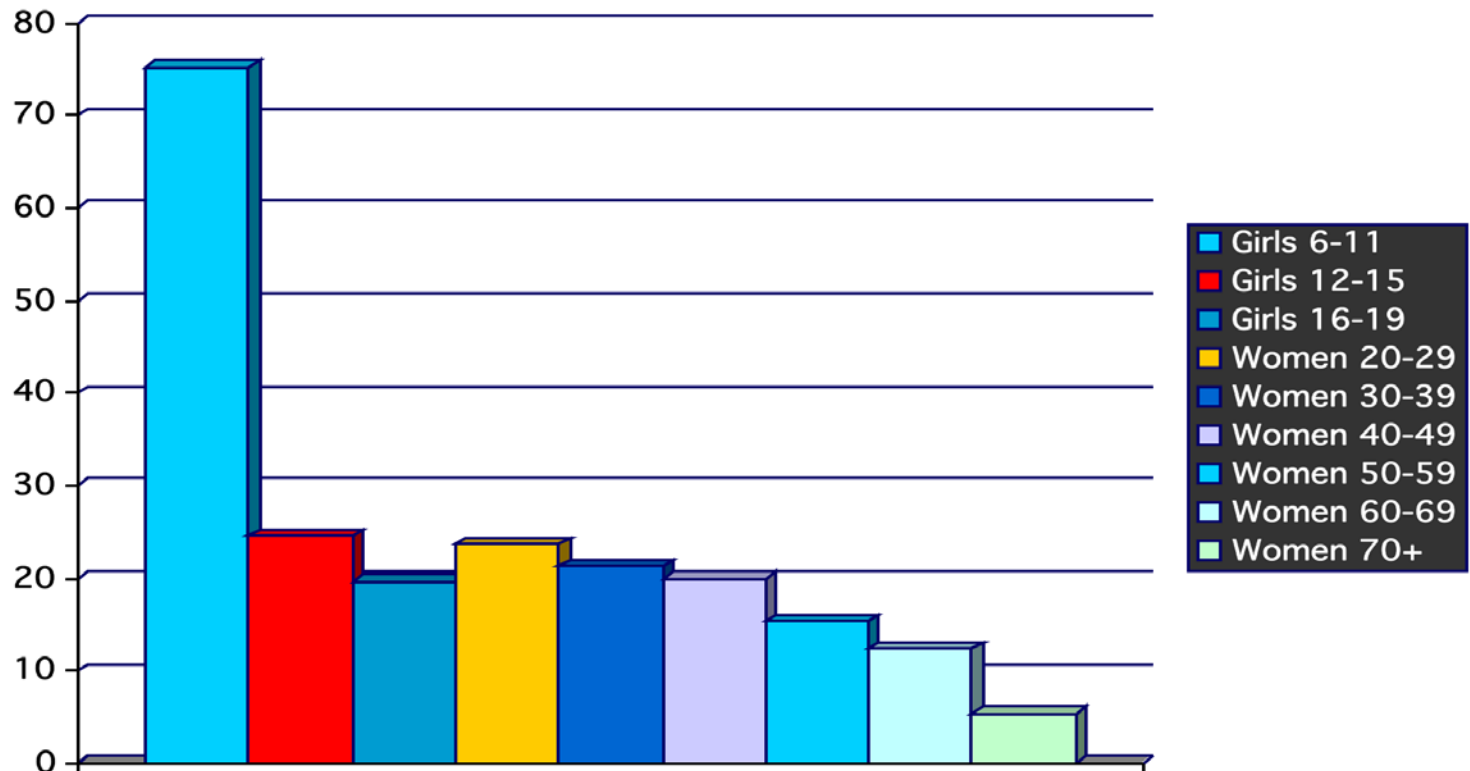
- Planned exercise ↔↑
- Occupation activity ↓
- Transportation activity ↓
- Household activity ↓
- Sedentary activity ↑



Result: decrease in energy expenditure

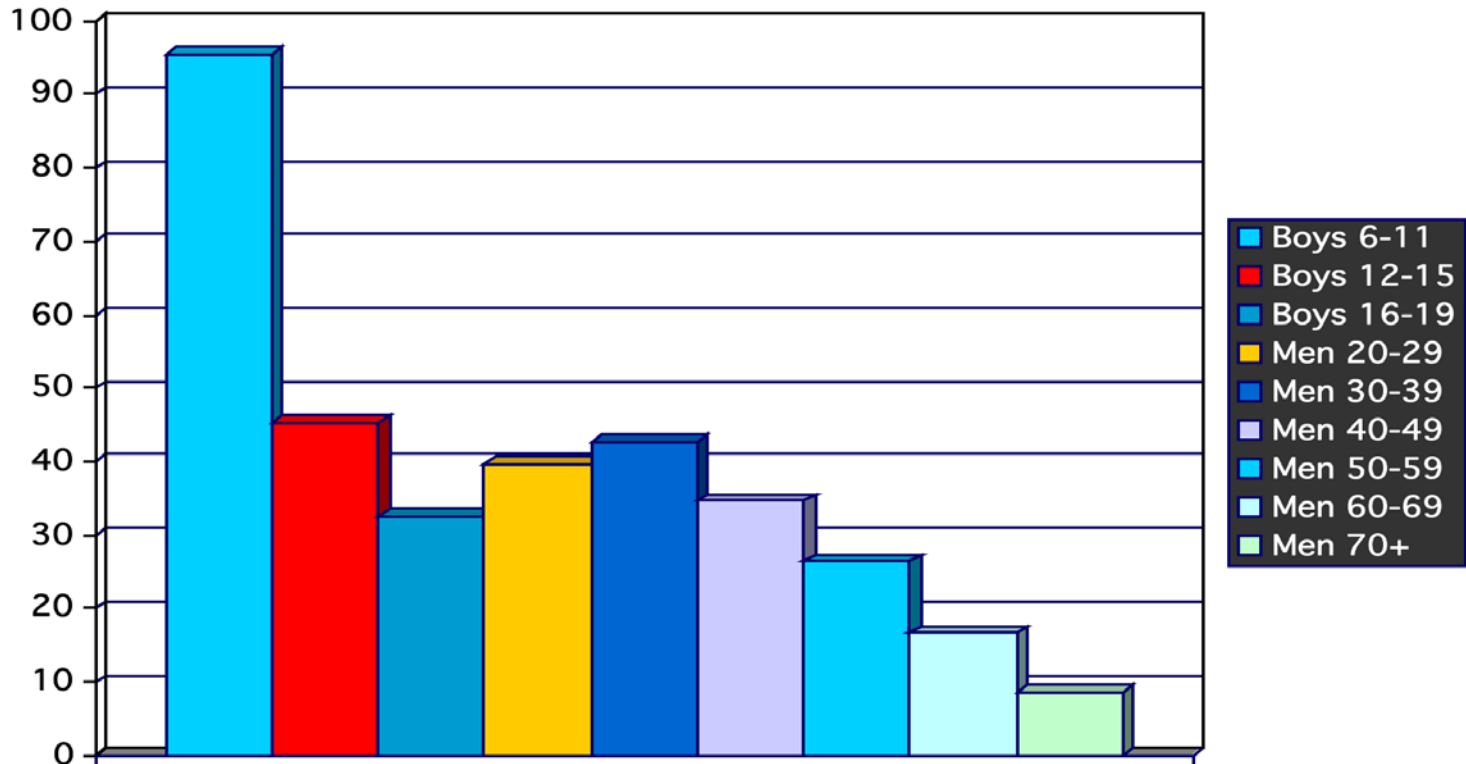
US Girls and Women: Minutes per Day Combined Moderate and Vigorous Activity

Min/D

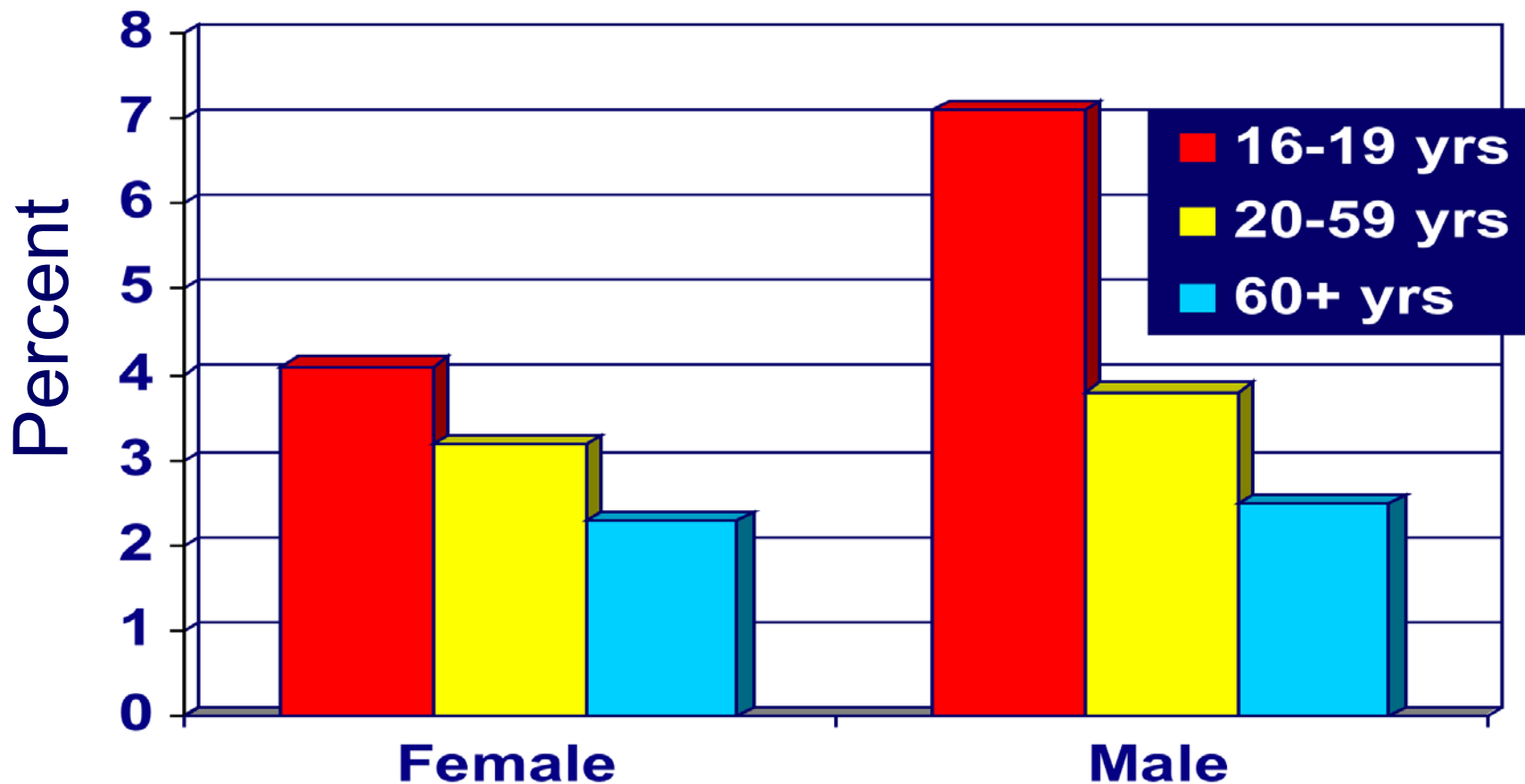


US Boys and Men: Minutes per Day Combined Moderate and Vigorous Activity

Min/D



US Adolescents, Adults, and Older Adults Meeting the Guidelines



Physical Activity Guidelines for Americans - October 2008



PA Guidelines – Children and Adolescents (ages 6–17)

- 1 hour (60 minutes) or more of daily physical activity that is mixture of moderate and vigorous
 - It is important to encourage young people to participate in physical activities that are age appropriate, enjoyable, and offer variety.



PA Guidelines – Adults (ages 18–64)

- Minimum levels a week
 - 2 hours and 30 minutes moderate-intensity aerobic activity; or
 - 1 hour and 15 minutes vigorous-intensity aerobic activity; or
 - **OR** an equivalent combination of the two
- Muscle-strengthening activities 2 or more days/wk



PA Guidelines – Older Adults (ages 65 years and older)

- Follow adult guidelines
- If at risk for falls, perform balance exercises
- If cannot follow the guidelines for ‘adults,’ be as physically active as abilities and conditions allow
- No need for medical clearance



Key Messages

- Any activity is better than none
- Accumulate activity in small or large bouts
- Walking is a universally accepted mode of activity
- Gain benefits at any body weight
- Pregnant and postpartum women have a lot to gain by being active
- Choose enjoyable activities

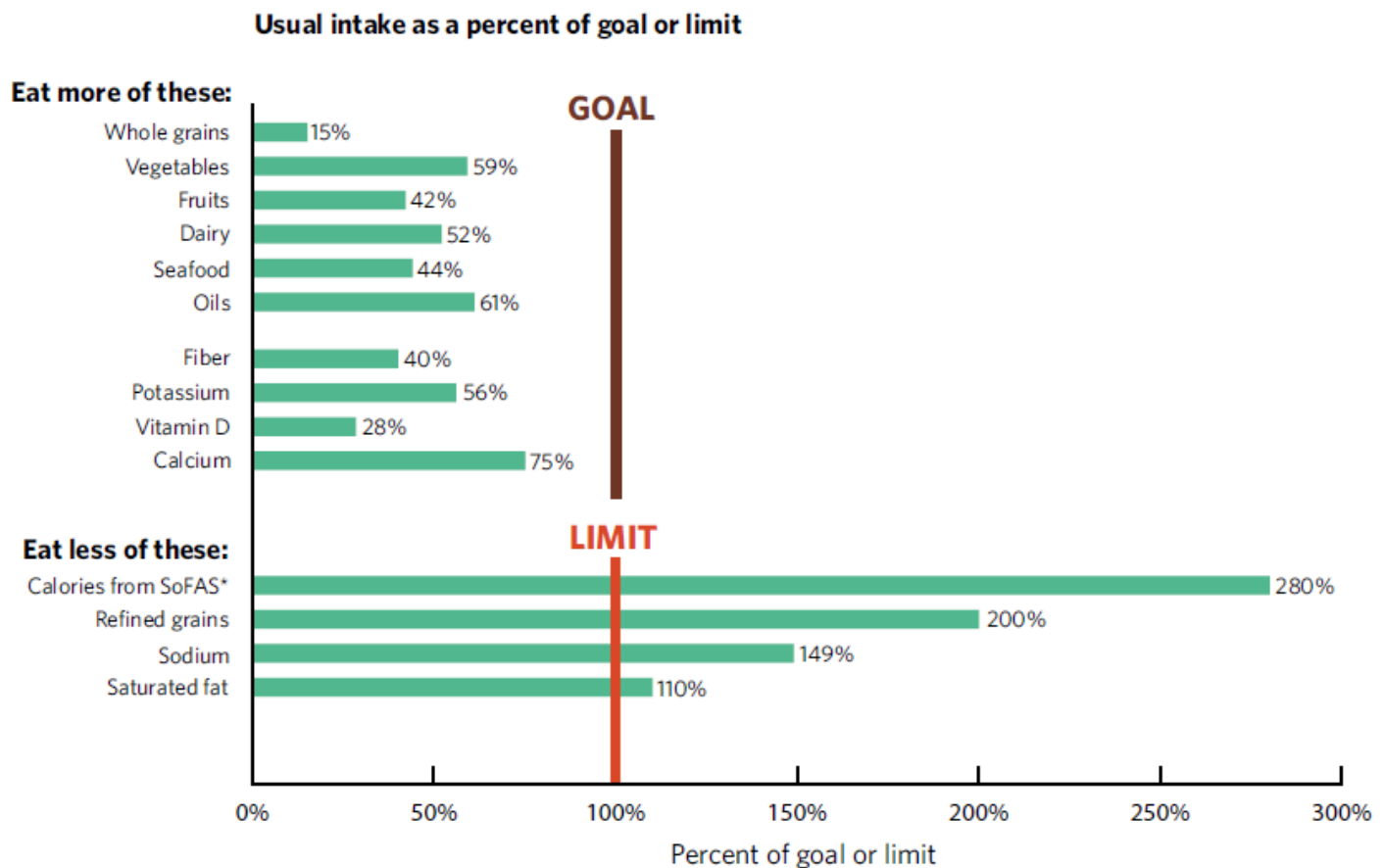


What About Nutrition?



Comparison of Consumption to Recommendations

FIGURE 5-1. How Do Typical American Diets Compare to Recommended Intake Levels or Limits?



SoFAS - Solid Fat and Added Sugars

24 Teaspoons of Added Sugars per day

3.6 Tablespoons of Solid Fat per day

758 Calories

35% of total calories

(average 40 year old woman)



Four Key Findings

- Balance calories; eat a little less
- Shift towards a more plant-based diet
- Dramatically reduce added sugars, solid fats, refined grains, and sodium (35% to 15%)
- Meet the 2008 Physical Activity Guidelines



Principles for Promoting Calorie Balance (Chapter 2)

- Monitor food and beverage intake, physical activity, and body weight
- Reduce portion sizes
- When eating out, make better choices
- Limit screen time

Dietary Guidelines
for Americans 2010

What is going on?



Socio-ecological Model

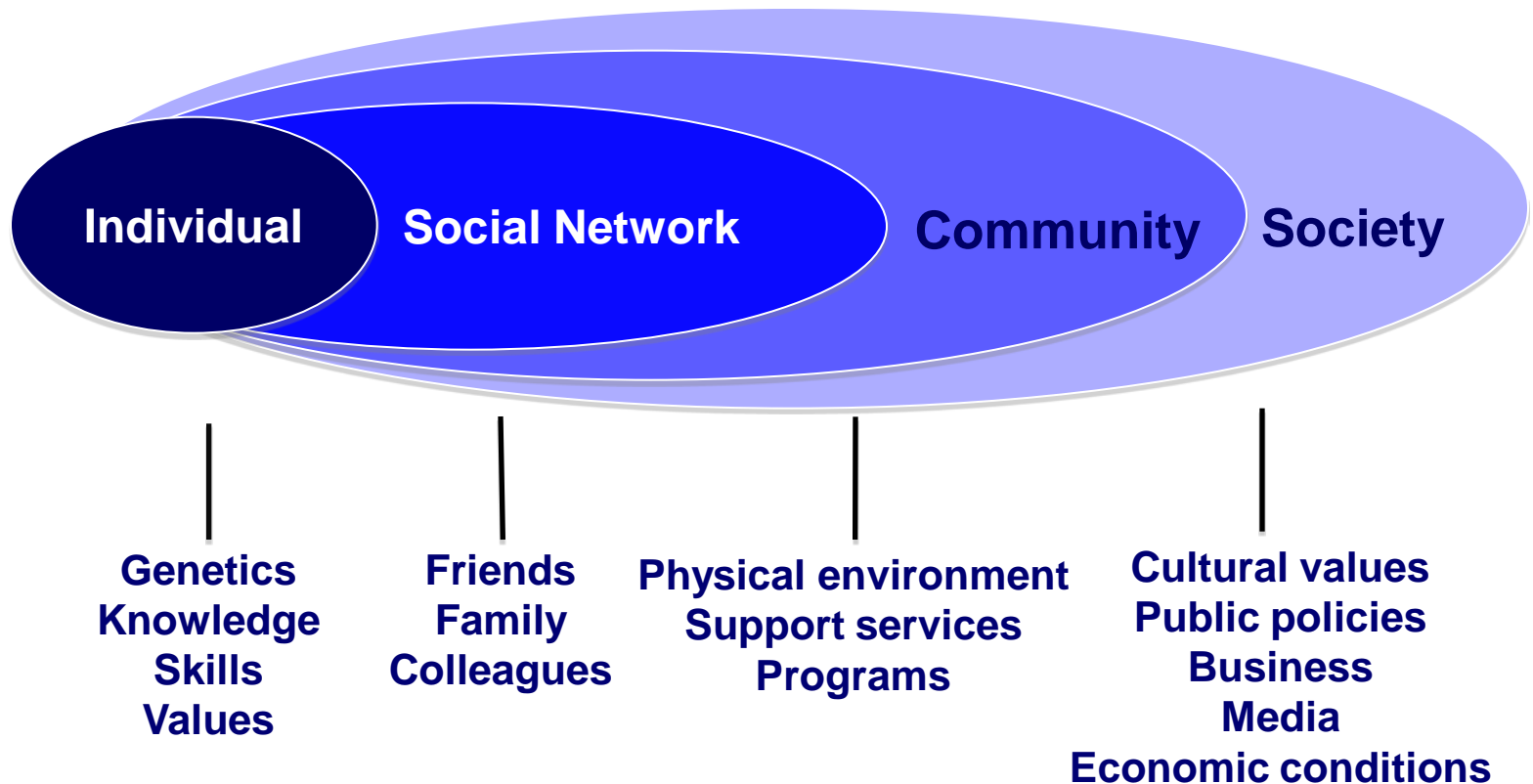
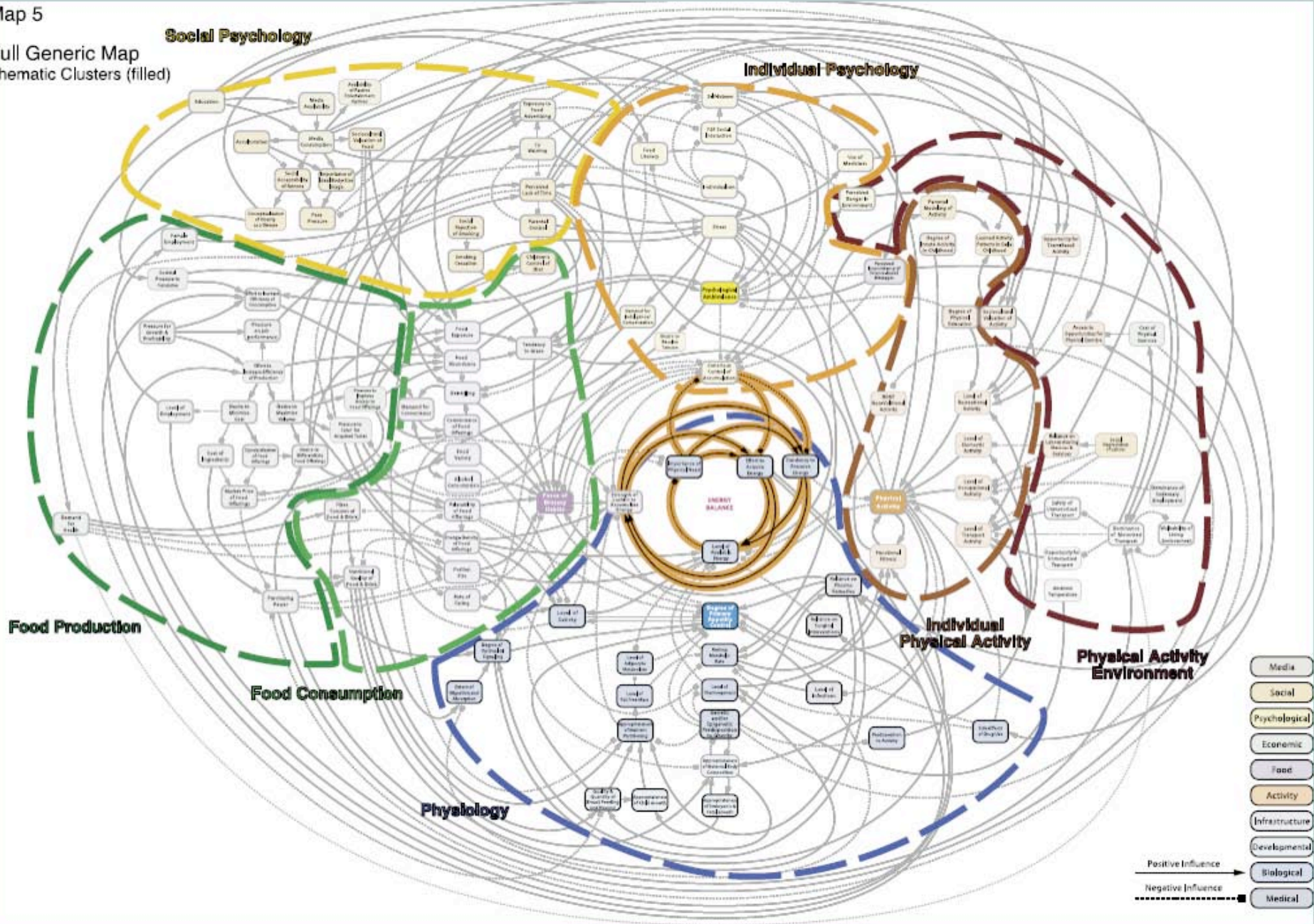


Figure 5.2: The full obesity system map with thematic clusters (see main text 5.1.2 for discussion)^{17,18} Variables are represented by boxes, positive causal relationships are represented by solid arrows and negative relationships by dotted lines. The central engine is highlighted in orange at the centre of the map.

Map 5

Full Generic Map
Thematic Clusters (filled)



- Media
- Social
- Psychological
- Economic
- Food
- Activity
- Infrastructure
- Developmental
- Biological
- Medical

Positive Influence →
Negative Influence - - - - -

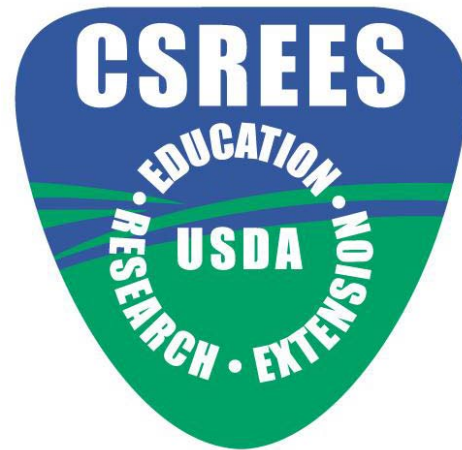
What can we do about it?



StrongWomen Healthy Hearts

A National Exercise and Nutrition Program For Women

LIFTING WOMEN TO BETTER HEALTH



CENTERS FOR DISEASE
CONTROL AND PREVENTION™

Mount Ida, AR

Population 978



Pratt, Kansas

Population 6,400

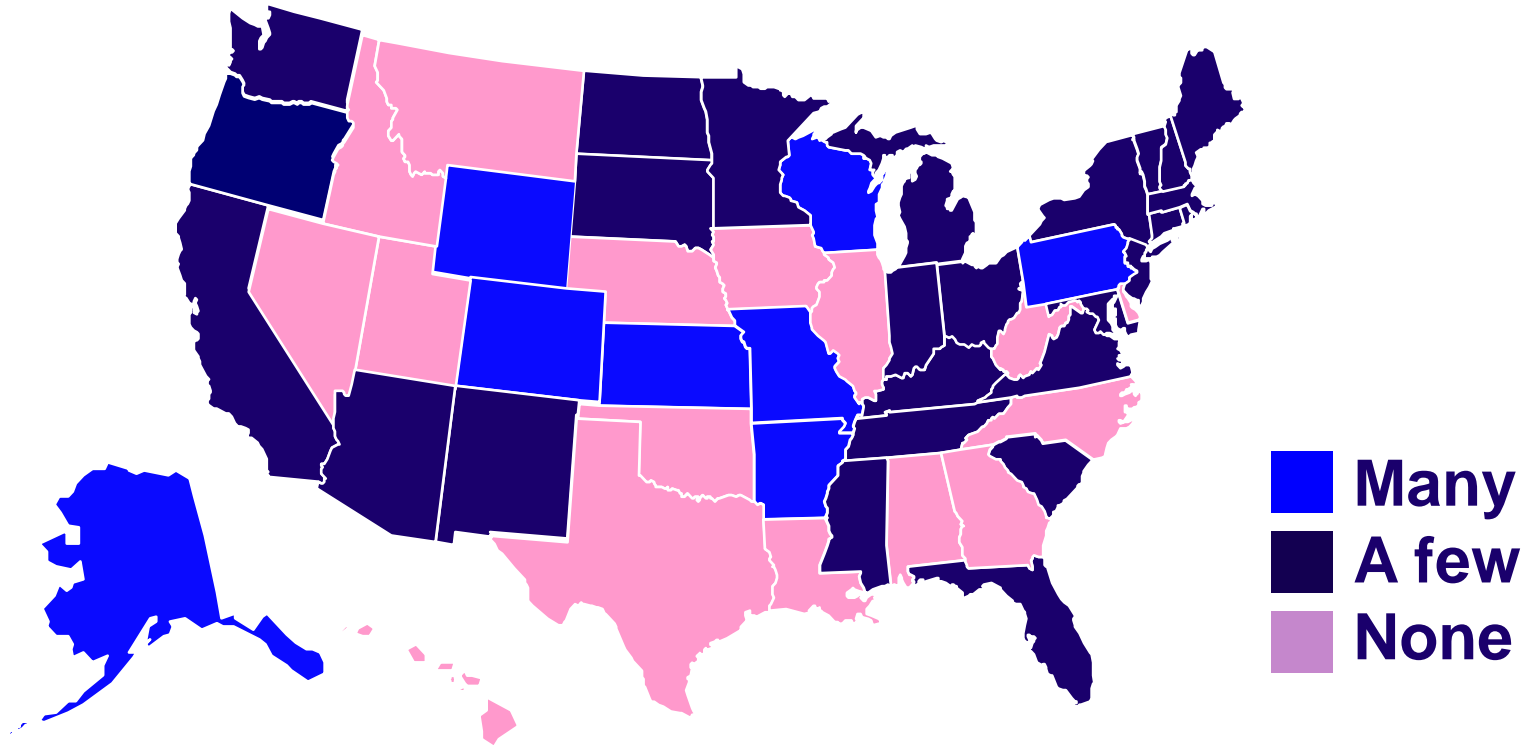


StrongWomen – Healthy Hearts Results of Pilot Project

Reduced the risk of heart disease in middle-aged and older women by:

- Increasing physical activity
- Improving nutrition intake
- Weight reduction

Active StrongWomen Programs



33 States with active programs

2,439 program leaders have been trained

www.strongwomen.nutrition.tufts.edu

Seguin et al., 2008 Preventing Chronic Disease

Where do we go from here?



Multi-sector Approach

- Individuals
- Communities
- States
- Public sector
- Private sector



Improve fitness, nutrition status, and change attitudes...

