“OMICS” AND DIETARY BEHAVIORS

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Obesity Trends* Among U.S. Adults
(*BMI ≥30, or about 30 lbs. overweight for 5’4” person)

Source: CDC 2009
Obesity in Children and Adolescents

- Obesity Rates
  - aged 2–5 years - 12.4%
  - aged 6–11 years - 17.0%
  - aged 12–19 years - 17.6%

- This group is more likely to have risk factors associated with cardiovascular disease (such as high blood pressure, high cholesterol, and Type 2 diabetes)

- Obese children and adolescents are more likely to become obese as adults
Background

• Major causes of morbidity and mortality are related to a poor diet and sedentary lifestyle
  – cardiovascular disease
  – type II diabetes
  – hypertension
  – osteoporosis
  – certain cancers
• 1/3 U.S. adults are obese BMI >30
• 16% of children are obese
Relationship of Food, Nutrition, and Health

- Sanitation
- Deficiency
- Excess
- Health & Well-being
- Germ Theory
- Vitamin Theory
- Diet & Chronic Disease
- New roles for nutrients in disease

<1900 1910 1950 1980 1990 2005

RDAs
DRI s
Food Guides (Pyramid)
Dietary Guidelines
U.S. Nutrition Policy

- Dietary Guidelines for Americans (HHS and USDA)
- Food Guidance System (USDA)
- The Nutrition Labeling and Education Act (NLEA) of 1990
  - The Nutrition Label (FDA)
Biological Processes

Genetics "omics"

Consumer Behavior
  - ethnicity (race)
  - socio-economic
  - age

Dietary Patterns

Health Effects

Dietary Choice

Diet Quality
Goals of this Workshop

• Describe the current research
• Identify the research gaps
• Prioritize research needs
Planning Committee

- Sanford Miller, Ph.D., University of MD, JIFSAN
- John Milner, Ph.D., NIH, National Cancer Institute
- Janet Novotny, Ph.D., USDA, Agricultural Research Service
- Etta Saltos, Ph.D., USDA, National Institute for Food and Agriculture
- Peter Scholl, FDA, Center for Food Safety and Applied Nutrition
Thank You