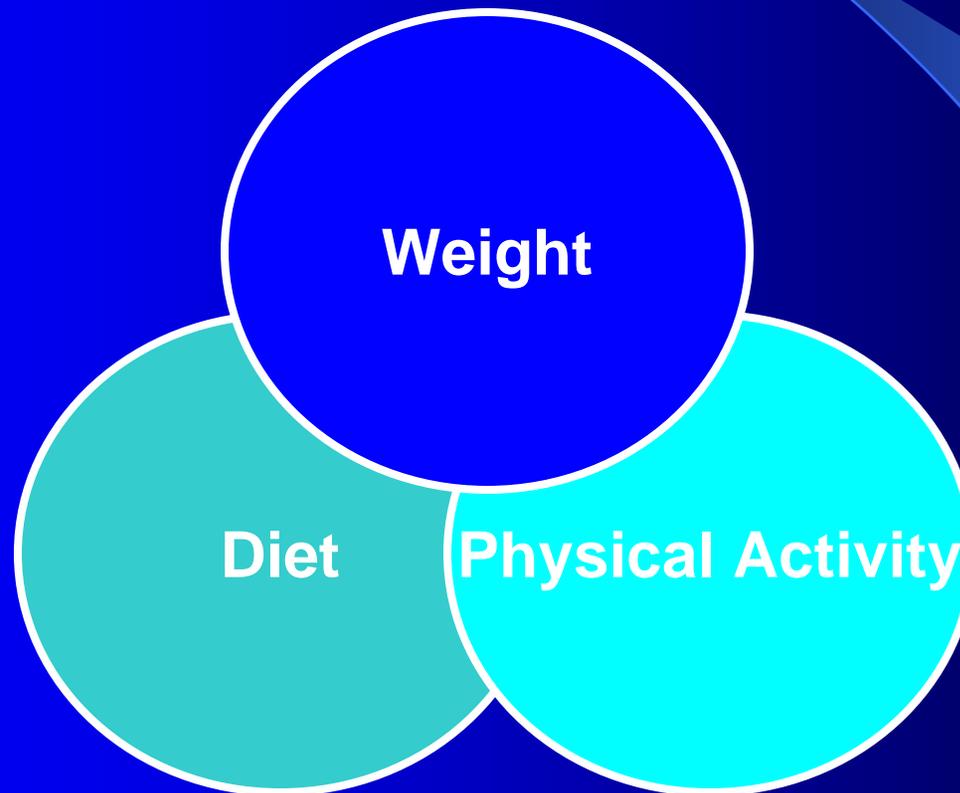


Optimizing Energy Balance to Reduce the Cancer Burden

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Food and Eating Consequences of Time-Use
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Energy Balance, Energetics and Cancer



Goals of the NCI Energy Balance Initiative

- Understand the causes of adverse patterns of weight, physical activity and diet
- Define their contribution to cancer
- Apply this knowledge to cancer prevention and control.

Objectives of NCI EB Initiative

- 1. Discover how body weight, physical activity, and diet, along with genetic and environmental factors, interact over a lifetime to influence the cancer process**
- 2. Monitor trends in and determinants of diet, weight, and physical activity and their cancer-related consequences by expanding nationwide research and surveillance infrastructure**
- 3. Develop improved measurement methods of body mass and composition, physical activity and fitness, diet, and bioactive food components through self-report measures and advances in technology for objective reference measures**
- 4. Improve cancer-related health outcomes, especially in high risk populations, by accelerating research on energy balance-related behaviors and developing interventions**

Objective 2:

Monitor trends in and determinants of diet, weight, and physical activity and their cancer-related consequences by expanding nationwide research and surveillance infrastructure

- Enhanced Surveillance of Energy Balance Related Health Behaviors:
 - National Health Interview Survey (NHIS)
 - California Health Interview Survey (CHIS)
- Objective Measurement of Physical Activity:
 - National Health and Nutrition Examination Survey (NHANES)
- Tracking Physical Activity and Nutrition Legislative Policies and Their Impact

Initiatives Relevant to ATUS

- PA on Studies of Energy Balance and Cancer in Humans – Virginia Hartmuller
 - <http://grants.nih.gov/grants/guide/pa-files/PA-04-124.html>
- RFA on Transdisciplinary Research on Energetics and Cancer – Linda Nebeling
 - <http://grants.nih.gov/grants/guide/rfa-files/RFA-CA-05-011.html>
- RFA on Physical Activity and the Built Environment – NIEHS
- PA on Innovative Research on Economic Factors Related to Diet, Activity, and Energy Balance – Martin Brown

Need for PA on Economics of EB

- **Economic research on energy balance has been limited to:**
 - **“Macro” studies that examine time-series associations between obesity trends and trends in economy-wide indicators of prices, incomes and technology**
 - **Evaluation studies of public sector nutrition programs**
- **Little integration or synthesis between economic and other disciplinary approaches to the study of energy balance**

Purpose of the Economics PA

- The intent of the PA is to solicit proposals that address:
 - **Consumer Economics** (e.g., individual choices about diet and physical activity, behavioral)
 - **Industrial Organization** (e.g., food production, distribution and marketing systems; healthcare reimbursement policies)
 - **Community Structure** (e.g., public finance, transportation, land-use, zoning; distribution of resources)
 - **Policy** (e.g., advertising, labeling, food aid, taxation)
 - **Cost-effectiveness/Cost-benefit Studies** (e.g., school health promotion programs)

Why Issue the Economics PA?

- To provide support for priority areas of research identified in:
 - NCI Bypass Budget (Energy Balance, Health Disparities) 2005
 - NIH Strategic Plan for Obesity Research 2004
 - DHHS Healthy Lifestyles and Disease Prevention Initiative 2003
 - Healthy People 2010
 - Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity, 2001
- To stimulate interest in economic research on diet, activity, and energy balance within the extramural community
- To encourage collaborative multi-disciplinary research between economics, behavioral research, public health research, and clinical researchers
- To take advantage of critical opportunities for natural experiments within the rapidly changing policy and private sector environment

Portfolio Analysis: Distribution of Grants over PA's Main Research Areas

PA Research Area	Number of Related Grants (%)	Number (%) NCI funded	Number (%) Funded by Other NIH I/Cs
1. Consumer Economics	3 (16.7%)	1	2
2. Industrial Organization	1 (5.6%)	0	1
3. Community Structure	3 (16.7%)	0	3
4. Policy	1 (5.6%)	0	1
5. Cost-effectiveness/ Cost-benefit Studies	10 (55.6%)	3	7
TOTAL	18 (100%)	4 (22.2%)	14 (77.8%)

Examples of Related NIH Grants

- A Behavioral Economic Approach to Childhood Obesity (NICHD)
- A Cafeteria-Based Study of Weight Gain Prevention (NHLBI)
- Cancer Prevention for Small Businesses (NCI)
- Evaluation of California's SB19 Pupil Nutrition Act (NIDDK)
- Role of Parks in Physical Activity and Health (NIEHS)

Funding Mechanisms and Timeline

- The PA includes both R01 and R21 mechanisms
- R21 mechanism allows investigators to conduct data validation before submitting R01 proposals
- Planned as an NIH-wide PA
- Release in Fall 2004

NIH Obesity Research Task Force

- Cross NIH

- Obesity Research Strategic Plan

 - <http://www.obesityresearch.nih.gov/About/strategic-plan.htm>

- Addresses basic to population sciences

- Stimulating trans NIH initiatives