

Health Behaviors Research Branch

The Health Behaviors Research Branch (HBRB) provides scientific leadership and supports research in effective psychosocial, environmental and community-based intervention strategies in cancer prevention and health promotion. Factors of interest include diet, physical activity, energy balance, obesity and genetics, virus exposure, indoor tanning, and sun exposure. HBRB also supports studies of multilevel influences on these factors, including national, state, and local policy, and other social-contextual factors such as relationships with friends, family and close others as well as cultural and socioeconomic influences.

RESEARCH AREAS

Behavioral Genetics

Secular changes in the prevalence of obesity may be associated with individual genetic variation in how one responds to an obesogenic environment. HBRB supports research to better understand the complex interplay of genes and behaviors relevant to the etiology of obesity, the examination of gene-environment interactions that contribute to obesity, and the development of preventative interventions to reduce obesity.

Close Relationships, Social and Contextual Influences on Behavior

Close relationships, public policy, and cultural and social factors have been shown to influence health behaviors including diet, physical activity, and sun exposure. HBRB supports and leads research examining multi-level influences on cancer preventive behaviors. This includes research that examines the role of close relationships between romantic partners (e.g., spouses), peers, and families in promoting and thwarting health behavior change; the role of policy in diet, activity, and sun exposure behaviors; and the role of broad contextual factors such as culture, socioeconomic characteristics, and the built physical environment in cancer preventive behaviors.

Diet & Behavior

Eating a healthy diet has been shown to reduce the risk of obesity and several cancers. HBRB supports research and activities aimed at improving dietary behaviors, including increasing fruit and vegetable consumption and decreasing total energy intake.

Obesity Prevention & Energy Balance

Weight, body composition, physical activity, and diet affect numerous physiological systems that can increase risk of developing cancer. HBRB supports research that explores the effect of energy balance and related behaviors on cancer prevention and control to improve the health of individuals and populations.

Physical Activity & Behavior

Physical activity has been linked to decreased risks of various cancers and improved physical and emotional functioning among cancer survivors. Better understanding and improvement of physical activity behavior and the reduction in sedentary behaviors in the U.S. population are major goals of HBRB.

Skin Cancer Prevention

Skin cancer is the most common type of cancer in the United States and the number of diagnosed cases is on the rise, especially among young adults. HBRB supports both measurement and intervention studies aimed at increasing sun protection and reducing indoor tanning to improve this trend.

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INITIATIVES

The **Transdisciplinary Research on Energetics and Cancer (TREC)** Centers initiative (2011 – 2016) consists of five National Cancer Institute-funded centers that foster collaborations among transdisciplinary teams of scientists. Their goal is to integrate diverse disciplines to find effective interventions across the lifespan to reduce the burden of obesity and cancer and to improve population health. Fourteen research projects plus multiple developmental pilot projects are underway at Harvard University, Washington University at St. Louis, University of Pennsylvania, University of California-San Diego, and the Fred Hutchinson Cancer Research Center. (www.trecscience.org)



Classification of
Laws
Associated with
School
Students

The **Classification of Laws Associated with School Students (C.L.A.S.S.)** is a resource to evaluate state-level codified laws for physical education (PE) and nutrition in schools. C.L.A.S.S. assesses the alignment of state law with national recommendations. The data are publicly available and web-enabled tools exist for mapping nutrition and PE policies nationally and for obtaining state specific profiles. C.L.A.S.S. can be used by researchers, policy makers, and school administrators to obtain information on state laws associated with childhood obesity, evaluate changes in policy over time, test relationships between law and behavior, and link to information about obesity and other cancer-related behaviors. (www.class.cancer.gov)

The **Food Attitudes and Behavior (FAB) Survey** Project was developed to better understand and evaluate factors and predictors related to fruit and vegetable intake. It measures attitudes and opinions, health, eating behaviors, physical activity, food preferences, and demographic variables. FAB includes conventional constructs such as self-efficacy, barriers, social support, and knowledge of fruit and vegetable recommendations, as well as novel constructs such as shopping patterns, taste preferences, views on vegetarianism, reasons for eating healthy, and environmental influences. (<http://cancercontrol.cancer.gov/brp/fab/>)



HBRB is proud to support the **National Collaborative on Childhood Obesity Research (NCCOR)**, a cooperative effort among the Nation's leading health funders—the Centers for Disease Control and Prevention, National Institutes of Health, U.S. Department of Agriculture, and Robert Wood Johnson Foundation. NCCOR seeks to improve the efficiency, effectiveness, and application of childhood obesity research by developing common measures and methods, evaluating and identifying effective interventions, and assessing policy and environmental changes related to childhood obesity. (<http://www.nccor.org>)

The **Family Life, Activity, Sun, Health and Eating (FLASHE)** study seeks to advance understanding of the dynamic relationship between the environment, psychosocial factors, and cancer preventive behaviors from a dyadic perspective. FLASHE will examine the science of cancer and obesity prevention by examining correlates of cancer preventive behaviors, mainly diet, activity, and sedentary behaviors (but also examining other behaviors such as sleep, sun-safety, and tobacco) in new ways not previously addressed comprehensively on other surveys. Data collected will ultimately be a public use dataset and resource to the research community. FLASHE will be collecting data in 2014-15 from parents and their adolescent children through a web survey with a final sample size of 2,500 dyads and motion sensing data collected in a subsample of 900 adolescents.

