

Spotlight on Applied Research

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Message from Dr. Rachel Ballard-Barbash

The Applied Research Program (ARP), Division of Cancer Control and Population Sciences is pleased to present this issue of *Spotlight on Applied Research*. This annual newsletter is intended to inform ARP's many partner organizations and individuals about developments in ARP's initiatives and tools, as well as opportunities for funding and training. It also highlights a few of our ARP staff. We hope you enjoy reading this issue and find it helpful for understanding ARP's multifaceted work across the cancer control continuum, from prevention through survivorship. We thank all of you who are engaged in this research and look forward to continued progress in expanding research, data systems, and methodologic tools to reduce the cancer burden.



Rachel Ballard-Barbash, MD, MPH
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Research Initiatives

Highlights: ARP Obesity Research Partnerships

National Collaborative on Childhood Obesity Research

ARP serves a leadership role within the [National Collaborative on Childhood Obesity Research \(NCCOR\)](#), a partnership of the [Centers for Disease Control and Prevention](#), the [National Institutes of Health](#), the [U.S. Department of Agriculture](#), and the [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.

Highlights of ARP's recent activities with NCCOR include leading the substantial expansion of the [Catalogue of Surveillance Systems \(CSS\)](#) and [Measures Registry \(MR\)](#), which are free online obesity research tools. ARP staff also played key roles in the October 2011 Green Health Workshop on Building Sustainable Schools for Healthy Kids and the January 2012 Farm to Fork Workshop on Surveillance of the U.S. Food System, which are discussed in the *Meetings and Training Opportunities* sections of this newsletter. For more information about NCCOR, visit <http://www.nccor.org>.

Obesity Research Task Force (ORTF)

Given the importance of the obesity epidemic as a public health problem, and its relevance to the mission of most NIH Institutes, Centers, and Offices (ICs), the [NIH Obesity Research Task Force \(ORTF\)](#) was established to accelerate progress in obesity research across the NIH. Dr. Rachel Ballard-Barbash, Associate Director of ARP, represents the National Cancer Institute on the ORTF. The NIH released a new [Strategic Plan for NIH Obesity Research](#) in March 2011.

Weight of the Nation Spotlights Obesity Epidemic

The HBO documentary film series, *Weight of the Nation*, aired on May 14-15, 2012. The four films that comprise the series were developed through a collaboration of HBO, the Institute of Medicine, the National Institutes of Health, the Centers for Disease Control and Prevention, Kaiser Permanente, and the Michael & Susan Dell Foundation. Each film featured case studies and interviews with experts, obese individuals, and their families. Dr. Francis Collins, Director of the National Institutes of Health, was interviewed in Part 1. Drs. Rachel Ballard-Barbash (ARP Associate Director), Susan Krebs-Smith (Chief, ARP Risk Factor Monitoring and Methods Branch), and Linda Nebeling (Chief, BRP Health Behaviors Research Branch, Behavioral Research Program) contributed information to the project and helped review the films. The films are available online at <http://theweightofthenation.hbo.com/#>.

The Breast Cancer Surveillance Consortium: A Valuable Research Resource

The [Breast Cancer Surveillance Consortium \(BCSC\)](#) is a resource for researchers who wish to examine the delivery and quality of breast cancer screening in the United States. The BCSC is a collaborative network of seven mammography registries that link to pathology and/or tumor registries, and is supported by a central

Statistical Coordinating Center (SCC). The Consortium is led by a multidisciplinary team that includes radiologists, primary care clinicians, pathologists, epidemiologists, health services researchers, and biostatisticians. [Pamela Marcus, PhD](#) (Epidemiologist, Health Services and Economics Branch, ARP) is the scientific lead at the NCI for the BCSC.

The BCSC database contains information on:

- 2.3 million women
- 9.5 million mammograms (7 million of which were screening mammograms)
- more than 180,000 biopsies
- 113,000 breast cancer cases, including nearly 19,000 diagnoses of ductal carcinoma *in situ*

The well-established BCSC data infrastructure, strong research foundation, history of multidisciplinary collaboration, and large, population-based sample make the resource ideal for research in breast cancer control. The BCSC has been a resource for more than 70 investigator-initiated studies funded by the NCI, other federal and state agencies, and foundations. More than 400 publications have resulted from the BCSC effort.

The BCSC has received NCI funding for additional data collection to identify the most effective risk-based breast cancer screening strategies while taking into consideration their potential for harm. The project is designed to evaluate performance characteristics of standard and advanced breast imaging technologies by breast cancer risk and specific subgroups (e.g., age, race/ethnicity, breast density) as these technologies disseminate into community practice.

Researchers from outside the BCSC are encouraged to propose collaborative efforts with the BCSC team. For the latest information on how to collaborate, visit the [BCSC website](#). The website also provides information on participating sites, ongoing collaborations, data, and publications.

Comparative Effectiveness Research in DCCPS

The [American Recovery and Reinvestment Act](#) of 2009 provided \$1.1 billion for comparative effectiveness research (CER), with \$400 million of that allocated to NIH. ARP is currently conducting a review of [DCCPS-funded grants focusing on CER](#). Within DCCPS, more than 100 CER grants were awarded in fiscal years 2009-2011. Projects have been undertaken at each stage along the cancer care continuum for multiple organ sites including

breast, colon/rectum, cervix, lung and prostate. The largest number of grants have been funded in the areas of cancer screening (36 grants), treatment (31 grants), and tobacco control (30 grants). Other awards have focused on different aspects of cancer prevention (including diet/energy balance), survivorship, and methods development.

DCCPS Partners with China CDC on Folate Exposure Study

A follow-up study of a cohort that began in the 1990s involves collaboration among NCI's Division of Cancer Control and Population Sciences (Drs. [Nancy Potischman](#), [David Berrigan](#), and Joseph Su), [Division of Cancer Epidemiology and Genetics](#) (Drs. Martha Linet and Cari Kitahara), the [NIH Office of Dietary Supplements](#), the [U.S. Centers for Disease Control and Prevention](#), and the [Chinese Center for Disease Control and Prevention \(China CDC\)](#). The cohort includes women who were or were not exposed to folate during pregnancy, and their children. The original study found significantly fewer birth defects for the folate group.

The follow-up study's ultimate goal is for the data it generates to serve as a research resource for the extramural research community regarding the early origins of chronic diseases, including adult cancers. Specific objectives examine the childhood cancer incidence and biological and other risk factors for adult cancers. Dr. Nancy Potischman (ARP OAD) travelled to China to conduct two trainings of 70 interviewers for the study. Investigators from the Nutrition Institute of the Chinese CDC participated in the trainings. They also trained lab personnel to process and store blood samples.

Investigators from the newly formed National Center for Chronic Noncommunicable Disease Control and Prevention at the China CDC coordinated and participated in the trainings and helped produce the training and procedures manuals. Through these trainings, China CDC staff and the interviewers learned new skills related to diet and physical activity assessment, which will be useful for their future efforts to monitor the health-related activities of the population. In addition, the Nutrition Institute will learn the analytic techniques for Vitamin D and folic acid at the U.S. CDC in Atlanta. Currently, diet, physical activity and ultraviolet radiation data on 120 mother-child pairs are being collected in two different sites in China.

ICSN Fosters Efficient and Effective Cancer Screening in Partner Countries

The [International Cancer Screening Network \(ICSN\)](#) is a voluntary consortium of countries that have active population-based cancer screening programs. Administered by ARP, the consortium was established in 1988 as the International Breast Cancer Screening Database Project during an international workshop with representatives from 11 countries.

The initial purpose of the ICSN was to generate a common database for evaluating organized screening mammography programs. In 1997, it shifted its focus to collaborative research aimed at understanding how to use and compare data from these programs as well as develop methods for evaluating their impact. The ICSN has since expanded to encompass colorectal and cervical cancer screening, and 33 countries currently participate.

ICSN members have worked together to evaluate cancer screening and improve outcomes through collaborative projects or working groups. The work of these groups is often coordinated with comparable activities within the European Cancer Network (ECN), which is administered by the [International Agency for Research on Cancer \(IARC\)](#). The current ICSN working groups have undertaken research projects on the comparability of screening participation rates, variation in ductal carcinoma *in situ* incidence and management, colorectal cancer costs, collection and use of biomarkers for screening, audit feedback for radiologists, and development of international test sets.

The ICSN will hold its next biennial meeting in Sydney, Australia on October 23-25, 2012. Please refer to this issue's *2012 Meetings and Training Opportunities* section for more information about the meeting. For more information about the ICSN, including data, publications, and measures, visit <http://appliedresearch.cancer.gov/icsn/>. For more information about ARP's other international research activities, visit <http://appliedresearch.cancer.gov/international/>.

Special Journal Issue: Multilevel Factors Across the Cancer Care Continuum

The NCI Division of Cancer Control and Population Sciences is pleased to announce the May 2012 *Journal of the National Cancer Institute (JNCI)* Special Issue, Understanding and Influencing Multilevel Factors Across the Cancer Care Continuum.

Written by transdisciplinary teams, the thirteen papers and five commentaries in the publication complete the work of the March 2011 NCI conference, "Multilevel Interventions in Health Care: Building the Foundation for Future Research."

The goal of the NCI Multilevel Intervention research initiative is to expand the scientific base of multilevel interventions in cancer care as well as other health conditions. The special issue is relevant to multiple audiences interested in interventions within a health care context, including:

- health services, community, and clinical researchers;
- public health practitioners;
- clinicians; and
- health care administrators.

Dr. Stephen Taplin (Chief, Process of Care Research Branch, Behavioral Research Program) and Dr. Steven Clauser (Chief, Outcomes Research Branch, Applied Research Program) led development of the special issue. For more information on Multilevel Intervention research at NCI, and to view conference proceeding videos and summaries, visit www.cancercontrol.cancer.gov/mli.

NCCCP Study Pilots Surveillance Methods for Patient-Reported Symptoms

The [NCI Community Cancer Centers Program \(NCCCP\)](#) is collaborating with the [American Cancer Society](#) and [American College of Surgeons-Commission on Cancer](#) to build surveillance capacity and investigate disparities in patient-reported cancer symptom experiences. The study began enrolling patients at 16 participating NCCCP sites in March 2012, with an enrollment goal of 1500 patients.

The study has three objectives:

1. To pilot a method for collecting patient reports of symptom-related care experiences that could be used for surveillance at the institutional level and, in the future, the population level
2. To investigate racial/ethnic, socioeconomic, and health insurance-related disparities in symptom burden and management
3. To pilot the use of patient-reported symptom data to improve the quality of symptom management at participating cancer centers

According to [Kate Castro](#), RN, MS, AOCN®, NCI scientific lead for the study, this research is expected to pilot an innovative method of capturing prospective patient-reported data during or shortly after cancer treatment. The data collected pertain to the symptoms experienced during the treatment and survivorship phases of the cancer continuum. A cancer registry is being used to identify participating patients. Drs. Steven Clauser (Chief) and Neeraj Arora (Research Scientist and Program Director) in ORB are key research team members for the project.

To learn more about the NCCCP, visit <http://ncccp.cancer.gov/>. Also see the next article in this section, which highlights the NCCCP evaluation results.

NCCCP Evaluation Results Will Help Improve Community Cancer Care

An in-depth evaluation of [NCI's Community Cancer Centers Program \(NCCCP\)](#) has been completed and results are available [here](#). The evaluation focused on the 2007-2010 pilot phase of the project. NCI established a partnership with selected community hospitals and health systems and their cancer centers to expand cancer research and deliver the latest, most advanced cancer care. NCCCP focuses on six key goals:

1. Reducing cancer health care disparities;
2. Increasing patient participation in clinical trials;
3. Improving quality of care at community hospitals;
4. Enhancing cancer survivorship and palliative care services at community hospitals;
5. Expanding use of electronic health records and connecting to cancer research data networks; and
6. Promoting high-quality biospecimen collection to support genomically-informed research.

The independent evaluation, conducted by RTI International, examined three broad questions about the impact of the NCCCP:

1. What changes in each program component and for the cancer program overall seem to be facilitated by the NCCCP?
2. What organizational requirements seem important to effectively manage and implement the NCCCP?

3. What changes and elements are sustainable and potentially replicable in other community hospitals?

A special study on the quality of care was added to the overall evaluation in 2009—a comparative analysis of NCCCP and non-NCCCP hospitals participating in the [American College of Surgeons–Commission on Cancer Rapid Quality Reporting System](#). A clinical trials analysis was added in 2011.

The evaluation’s results will provide valuable data to inform improvements in cancer care in the community, where up to 85% of cancer care is provided. They also will help inform how community hospitals can support cancer research in the community and respond to new trends in cancer care, such as increased emphasis on care coordination and greater reliance on information technology.

Journal Supplements Advance Measurement of Physical Activity

[Dr. Heather Bowles](#), Physical Activity Epidemiologist in ARP’s Risk Factor Monitoring and Methods Branch, led the development of the following journal supplements.

Objective Measurement of Physical Activity: Best Practices and Future Directions

This supplement summarizes and builds upon a workshop that convened researchers from diverse sectors and organizations to critically review the state-of-the-science. It discusses current technologies for objective physical activity monitoring, provides recommendations for the use of these technologies, and explores future directions in the development of new tools and approaches.

It presents best practices for using physical activity monitors in population-based research, explores modeling of physical activity outcomes from wearable monitors, and discusses statistical considerations in the analysis of accelerometry-based activity monitor data. It also examines monitor equivalency issues and discusses current use and best practices for accelerometry with particular populations—children, older adults, and adults with functional limitations.

Open-access, full-text of all articles is available at <http://journals.lww.com/acsm-msse/toc/2012/01001>.

Complete citation: Objective measurement of physical activity: best practices and future directions. *Medicine & Science in Sports & Exercise* 2012 January; 44(suppl 1):S1–S89. [\[Full text of articles\]](#)

Measurement of Active and Sedentary Behaviors: Closing the Gaps in Self-Report Methods

This supplement summarizes a workshop and webinar that explored the major challenges and opportunities for the use of self-report methods to measure active and sedentary behaviors. Additionally, it contains an overview of the history and evolution of self-report instruments, a commentary on the role of practitioners in instrument development, and a commentary on self-report measurement in low- and middle-income countries. This supplement is intended to be a reference for navigating the considerations encountered when selecting an approach for self-report assessment or when deciding how to develop a new instrument.

Open-access, full-text of all articles is available at <http://journals.humankinetics.com/jpah-supplements-special-issues/jpah-volume-9-supplement-january>.

Complete citation: Measurement of active and sedentary behaviors: closing the gaps in self-report methods. *Journal of Physical Activity & Health* 2012 January;9(suppl):S1–S92. [\[Full text of articles\]](#)

PROSPR Initiative Aims to Understand and Improve Community-Based Cancer Screening

Screening for cancer, which aims to identify cancer among persons with no symptoms, is a major undertaking for health care providers. Most medical organizations recommend screening for breast, colorectal, and cervical cancers. Recent studies have demonstrated that the screening process for breast, colorectal, and cervical cancers can be improved.

A major new NCI initiative, [Population-Based Research Optimizing Screening through Personalized Regimens \(PROSPR\)](#), supports research to better understand the screening processes for breast, colorectal, and cervical cancers and how to improve them. PROSPR fosters multi-site, coordinated, transdisciplinary research to document the entire screening process, including exam attendance, exam outcomes, follow-up for positive exams, diagnosis, cancer characteristics, and referral for treatment. Other aspects of the screening process, including issues involving communication of risk and uncertainties and adverse effects of the screening process, will also be studied.

PROSPR will include comparative effectiveness research (CER) to examine existing and emerging screening modalities in community practice and whether screening recommendations can be personalized based on cancer risk profiles.

The heart of PROSPR is a centralized data repository. Seven PROSPR research centers will contribute data on the entire screening process to the repository. The data first will be used by researchers at the PROSPR centers to answer core questions about breast, colorectal, and cervical cancer screening. Eventually, other researchers will be able to request data.

Collaborations are a major part of PROSPR. PROSPR research centers will work together to plan and conduct studies about the screening process. Additionally, each PROSPR research center has been funded to conduct three screening research projects of its choosing. The PROSPR Statistical Coordinating Center, located at the [Fred Hutchinson Cancer Research Center](#), is directing collection of data for the repository.

PROSPR held its first in-person meeting on March 7-8, 2012 in Rockville, MD. See this issue's *2012 Meetings and Training Opportunities* section for more information about the meeting. A second meeting is planned for September 12-13, 2012 in Seattle.

[Dr. Pamela Marcus](#), an epidemiologist in ARP's Health Services and Economics Branch (HSEB), is the scientific lead for PROSPR. She coordinates activities involving breast screening as well. Drs. [Paul Doria-Rose](#) and [Carrie Klabunde](#), also of ARP/HSEB, coordinate activities involving cervical and colorectal cancer screening, respectively. [Heather Rozjabek](#), MPH, in the ARP Office of the Associate Director (OAD), provides scientific support for the project. [Anita Ambs](#), MPH, and [Emilee Pressman](#), MPH, also in the ARP OAD, are responsible for grant administration. [Dr. Martin Brown](#), Chief of ARP/HSEB, is the PROSPR Scientific Advisor.

The NCI PROSPR team is excited to be working on this important initiative. Dr. Marcus believes that PROSPR will address and resolve many of the challenging issues we face today in community-based screening for breast, cervical and colorectal cancers. She notes, "Many screening modalities have the potential to save lives, but we must first understand and then improve the process if we wish to gain all we can from these important cancer control activities."

PROSPR is conducted using a cooperative agreement mechanism. The grantees were funded in September 2011, and the initiative is expected to continue for at least five years. For more information about PROSPR: <http://appliedresearch.cancer.gov/networks/prospr/sites.html>.

Journal Supplement Reports Research on Racial/Ethnic Discrimination and Health

The NCI's Division of Cancer Control and Population Sciences is pleased to announce the publication of "The Science of Research on Racial/Ethnic Discrimination and Health," a supplement to the *American Journal of Public Health* (May 2012; 102(5):930–1034). The theme issue aims to highlight the need for and state of empirical research on racial/ethnic discrimination and its association with the health and health care received by racial/ethnic minority populations.

The issue's themed section opens with an article that reviews current measures, research approaches, data resources, and results of research on race/ethnicity-based health care discrimination. Subsequent articles center on issues of measurement, implicit bias, perception of discrimination and institutional racism. Several of the articles were written by presenters from a 2011 [conference](#) that examined the research and research methods used for investigating the role of racial/ethnic discrimination in health.

This theme issue illustrates the state of the field, describes current methodology, identifies research gaps, and suggests areas that should be considered for future research. The issue will serve as a valuable resource for researchers in this topic area and will help position researchers, policy makers, and professionals at all levels of health care to address the effects of discrimination in the evolving health care environment. For more information about three of the articles in the issue, read the *American Journal of Public Health* [press release](#).

The NCI scientific leads for the theme issue were Dr. Vickie Shavers, formerly an epidemiologist in the Health Services and Economics Branch of ARP and Dr. William Klein, Associate Director of the Behavioral Research Program. The articles may be accessed free of charge at <http://healthservices.cancer.gov/areas/disparities/supplement.html>.

New and Forthcoming Data

Database Provides Objective Physical Activity Data for Children and Youth

[The International Children's Accelerometer Database \(ICAD\)](#) is a partnership of organizations and initiatives from the United States, Brazil, Europe, and Australia. The database pools data for over 32,000 people aged 3–18 years from studies conducted in Europe, the United States, Brazil, and Australia. All of the studies collected

physical activity data using similar accelerometers and data collection protocols. The ICAD became available as a public resource, via open access proposals, in April 2012. [Dr. Richard Troiano](#) (RFMMB) participates in the ICAD consortium, which developed the ICAD and has representation from 20 organizations.

NHIS 2010 Cancer Control Data Available!

The [National Health Interview Survey \(NHIS\)](#) is a nationwide in-person survey of approximately 35,000 households in the civilian non-institutionalized population. It is the premier population-based general health survey conducted continuously in the U.S. The NHIS is conducted by the Centers for Disease Control and Prevention (CDC)-National Center for Health Statistics and administered by the U.S. Census Bureau.

Since 1987, a [Cancer Control Supplement \(CCS\)](#) has been fielded periodically on the NHIS. The CCS is co-sponsored by the NCI and the CDC's Division of Cancer Prevention and Control. The CCS items are reviewed before every survey administration to ensure that they are current, relevant, and aligned with national public health goals such as those established under the [Healthy People](#) program.

The 2010 [NHIS CCS](#) included items covering the following areas: diet and nutrition; physical activity; cancer screening; sun protection; tobacco use and control; genetic testing; family history of cancer; cancer risk assessment; and cancer survivorship.

Cancer control data as well as other data from the 2010 administration of the NHIS were released in June 2011. Data files may be accessed free of charge from the [National Center for Health Statistics \(NCHS\) NHIS Web site](#).

[Dr. Carrie Klabunde](#) in ARP's Health Services and Economics Branch is the NCI Project Officer for the NHIS CCS. As explained by Dr. Klabunde, "The cancer control data from the National Health Interview Survey are high-quality and very important to public health efforts to reduce the burden of cancer in the United States. What is learned from these data can be used to improve health and health care for all adults in this country." For more information about NHIS cancer control data and publications, visit <http://appliedresearch.cancer.gov/surveys/nhis/what.html>.

SEER-Medicare Data Inform Treatment Decision-Making in Prostate Cancer

The [SEER-Medicare database](#) reflects the linkage of two large population-based data sources that provide detailed information about Medicare beneficiaries with cancer. The data come from the [Surveillance, Epidemiology and End Results \(SEER\)](#) program of cancer registries, which collect clinical, demographic and cause of death information for persons with cancer, and the Medicare claims for covered health care services from the time of a person's Medicare eligibility until death.

The SEER-Medicare linkage is a rich data source for studying cancer treatment and outcomes. As summarized below, numerous SEER-Medicare studies published in 2011 and 2012 have examined radiation therapy (RT) and androgen deprivation therapy (ADT) use in elderly men with prostate cancer, the most common cancer type in men. Considerable debate has surrounded the question of appropriate treatment in this patient population, particularly with respect to the high utilization, high cost, and uncertain clinical benefit of RT and ADT in men with low-risk prostate cancer.

Radiation Therapy: 3DCRT vs. IMRT

Three-dimensional conformal radiation therapy (3DCRT) and intensity-modulated radiation therapy (IMRT) are external-beam RT modalities that use techniques intended to protect healthy tissues from radiation. 3DCRT uses a 3-D planning system to target a strong dose of radiation to the prostate cancer, whereas intensity-modulated radiation therapy (IMRT) uses a carefully adjusted amount of radiation based on the size and shape of the tumor.^{1,6}

IMRT is thought to have technical advantages over 3DCRT that may improve outcomes, and some data suggest that its high dose could improve disease-free survival, but no comparative studies have established its superiority.² In studies of elderly men, there were fewer bowel complications and less frequent prostatic/hemorrhage with IMRT, but more fractures and new impotence diagnoses with 3D-CRT. Similar rates of urinary complications and erectile complications involving invasive procedures were observed.^{3,4}

3DCRT was the most frequent external RT modality for nonmetastatic prostate cancer before 2000. Its use in these men then decreased dramatically across the U.S., whereas IMRT use increased markedly.² The choice of 3DCRT vs. IMRT was not related to clinical factors such as age, comorbidities, or tumor aggressiveness. Instead, utilization correlated with Medicare reimbursement. In

the early 2000s, Medicare reimbursement for IMRT increased to about four times that of 3DCRT. Although IMRT reimbursement has since decreased, physicians may be unlikely to revert to using 3DCRT to treat nonmetastatic prostate cancer, because they have already implemented the more expensive IMRT technology.²

Radiation Therapy: Brachytherapy vs. Cryotherapy

Brachytherapy and cryotherapy are emerging therapies for localized prostate cancer. Brachytherapy places radioactive material sealed in needles, seeds, wires, or catheters directly into or near a tumor. Cryotherapy uses extreme cold to destroy abnormal cells.^{5,6} They have favorable side effect profiles compared to radical prostatectomy (RP), the most widely used approach for localized disease.⁷

In the early 2000s, cryotherapy use increased four-fold while brachytherapy use remained the same. In a population-based study, cryotherapy was significantly less costly and led to fewer bowel complications than brachytherapy, but it was associated with more urinary complications and erectile dysfunction (ED) and a greater need for salvage ADT. Since salvage therapy is treatment given after the cancer has not responded to other treatments, this finding suggests poorer cancer control with cryotherapy than with brachytherapy.⁷ Another population-based study found frequent lower urinary tract obstruction and ED with the use of cryotherapy.⁸

Androgen Deprivation Therapy (ADT)

ADT for prostate cancer may be defined as orchiectomy (surgery to remove one or both testicles) or the use of a gonadotropin-releasing hormone (GnRH) agonist (laboratory-made hormone that has the same effect as GnRH produced naturally by the body).^{6,9}

Evidence of ADT's efficacy has mainly been limited to metastatic disease and as an adjunct to local therapy in high-risk disease. Between 2000 and 2002, Gilbert and colleagues found that ADT use was higher in each successive age group, including men 80 years of age or older, who are at low risk for death from prostate cancer. ADT as primary therapy increased with each additional coexisting medical condition, underscoring the clinical importance of its complications profile.¹⁰

Although clinical guidelines do not support ADT for low-risk prostate cancer, in the 1990s its use increased substantially not only in those men, but in fact for all men across all stages, grades, and ages. GnRH agonists replaced orchiectomy as the primary ADT modality

during this period. ADT use peaked in 2000, then leveled off, and decreased in 2005.^{9,10}

GnRH agonists were observed to increase bone fracture risk in men with metastatic and nonmetastatic prostate cancer, and experiencing a fracture was associated with decreased survival.¹¹ ADT increased the risk of a thromboembolic event (TE) in men with nonmetastatic disease, and it is associated with increased cataract risk.^{11,12}

The increase in ADT utilization during the 1990s may be explained mainly by favorable reimbursement.^{10,13} A 2007 analysis found that primary ADT use in men with localized prostate cancer was significantly higher for patients treated by urologists who were not academically affiliated. The authors posit:

“Factors other than evidence of benefit may have influenced the use of ADT by urologists without an academic affiliation. Financial incentive might play a greater role for non-academically affiliated urologists, who more likely may be paid on a fee-for-service, rather than a salaried basis. Through the 1990s, ADT use in the form of GnRH agonists allowed a substantial profit for every dose administered and formed a substantial portion of private-practice urologist income. Physicians in academic settings may have more time for a discussion of risks and benefits, which could lead to lower use of androgen deprivation in settings where its benefits are uncertain. Finally, academic physicians may be less influenced by the pharmaceutical industry marketing of GnRH agonists” (p. 5364).¹³

The Medicare Modernization Act (2005) reduced GnRH agonist reimbursement by about 50%, which may partially explain the decrease in use in 2005. Cost trend observations for 2006 and beyond are needed to ascertain whether use has continued to decline and in which patient populations.¹⁰

Applications of the Research

These population-based studies using SEER-Medicare data have yielded a wealth of information regarding RT and ADT with respect to their utilization, clinical benefits, complications, and cost in men with prostate cancer. They will provide valuable insights in the coming years for decision-making and policy planning in this important clinical arena.

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SEER-MHOS Data Available!

Of the 6.5 million older adults with cancer, 43 percent survive more than 10 years from the initial diagnosis, and 17 percent survive more than 20 years. With advances in effective therapies and earlier detection, the number of cancer survivors in the Medicare program will continue to grow. As this shift takes place, a better understanding of the health-related quality of life (HRQOL) of older adults with cancer diagnoses will be increasingly valuable. Information about the HRQOL of older cancer survivors can help health plans develop appropriate policies and make sound decisions about allocating resources to better serve this population.

Data files from the [Surveillance, Epidemiology and End Results-Medicare Health Outcomes Survey \(SEER-MHOS\) Linkage Project](#) became publicly available to external investigators in early 2011. The SEER-MHOS database, which is modeled on the [SEER-Medicare Linked Database](#), is a population-based resource that will give researchers important insights into the HRQOL of elderly cancer patients and survivors. It contains information from more than 55,000 cancer patients and survivors as well as nearly 854,000 people who have never been diagnosed with cancer. SEER data provide clinical, demographic, and cause-of-death information for people with cancer. MHOS data provide information about HRQOL, comorbidities, and sociodemographics of those enrolled in Medicare Advantage Organizations.

The SEER-MHOS database includes six cohorts of MHOS baseline and follow-up data covering the data collection years of 1998–2005. Two additional cohorts of MHOS data covering the data collection years of 2005–2007 have undergone linkage with SEER data. SEER-MHOS data for these cohorts became available in June 2012.

Researchers who wish to obtain the SEER-MHOS data are encouraged to read the procedures and support resources at <http://outcomes.cancer.gov/surveys/seer-mhos>. NCI staff managing the SEER-MHOS linkage are [Dr. Steven Clauser](#), Chief of ARP's Outcomes Research Branch and [Ms. Anita Ambs](#) in the ARP OAD.

New Tobacco Use Data To Be Available Soon

The [Tobacco Use Supplement to the Current Population Survey \(TUS-CPS\)](#) is an NCI-sponsored survey of tobacco use that has been administered as part of the U.S. Census Bureau's Current Population Survey since 1992. TUS-CPS data for 2010–2011 are expected to be released soon. Watch for posting of the data files at <http://riskfactor.cancer.gov/studies/tus-cps/new-mod.html>.

Measures and Methods

ASA24™ Enables Automated Self-administered Dietary Assessment

An updated version of an innovative dietary assessment tool, the [Automated Self-Administered 24-Hour Dietary Recall \(ASA24™\)](#), was launched in September 2011. ASA24 is a freely available web-based software tool that enables automated self-administered 24-hour dietary recalls. It consists of a Respondent application used by participants to enter recall data and a Researcher application used by researchers to manage study logistics and obtain data analyses. The updated version includes optional modules to query where meals were eaten, whether meals were eaten alone or with others, television and computer use during meals, and intake of dietary supplements. The updated version allows participants to complete recalls in English or Spanish.

ASA24 can be used by researchers for epidemiologic, intervention, behavioral, or clinical research. Clinicians may also find it helpful for diet assessment and nutrition counseling, and educators may find it to be a useful teaching tool. The Beta version, which launched in 2009, has been used in over 240 studies to collect more than 50,000 recalls. Since September 2011, the updated tool (Version 1) has been used in over 130 studies to collect more than 7,000 recalls. Preliminary examination of output indicates good face validity (i.e., calorie, nutrient, and food group estimates that are consistent with data from the [National Health and Nutrition Examination Survey](#)). Several studies are formally evaluating ASA24, with findings expected later in 2012.

Adaptation of the traditional interviewer-administered 24-hour dietary recall to a fully-automated tool has the potential to revolutionize dietary assessment by enhancing the feasibility and cost-effectiveness of collecting high-quality dietary data. Details on ASA24, including information on registering a study and a link to a demonstration version of the updated Respondent application, are available at <http://riskfactor.cancer.gov/tools/instruments/asa24/>.

ASA24 was developed by NCI and Westat. The NCI scientific leads are Drs. [Amy Subar](#), [Sharon Kirkpatrick](#), [Nancy Potischman](#), [Frances Thompson](#), and [Gordon Willis](#), all in ARP. A [children's version](#) of ASA24 will be available in September 2012.

NCI's Diet History Questionnaire Updated and Freely Available

The [Diet History Questionnaire \(DHQ\)](#) is a freely available food frequency questionnaire (FFQ) developed by staff in ARP's Risk Factor Monitoring and Methods Branch. It can be used by researchers, clinicians, or teachers without permission. DHQ II is the current version of the questionnaire. [Dr. Amy Subar](#) is the NCI scientific lead for the DHQ II.

Food frequency questionnaires can be used in conjunction with either 24-hour recalls or food records to examine diet and health relationships in prospective studies. They can also be used as the main instrument in such studies if 24-hour recall or food record data are collected from a subsample to allow the use of calibration techniques to correct for measurement error in the FFQ. For retrospective studies, an instrument querying about past diet, such as an FFQ, is the only choice possible.

Cognitive testing was performed to design the DHQ to be easy to use. Version 1 of the DHQ (DHQ I) was released in 2007. It had 124 food items and included portion size as well as dietary supplement questions.

DHQ II was released in 2010. It has a food list and nutrient database that has been updated based on recent national dietary surveys. DHQ II has 134 food items and eight dietary supplement questions. Unlike DHQ I, DHQ II is available in four versions that differ by time frame (past month vs. past year) and whether or not portion size questions are included. Paper and electronic formats are available.

Researchers may use the NCI-developed [Diet*Calc software](#) to analyze data files from DHQ II's paper or electronic modes of administration. DHQ II may be modified to suit a particular research project, but this option is available only for the paper version. Also, certain guidelines must be followed when modifying the forms and the Diet*Calc software.

For additional background on the DHQ II, how it differs from the original DHQ, and more information on how to use it, visit <http://riskfactor.cancer.gov/dhq2/about/>.

As explained by Dr. Subar, "for the past few decades, the FFQ was the only instrument feasible for conducting large scale dietary research. Newer technologies are making more detailed short-term instruments affordable and feasible for future research. FFQs, however, still have a role to play in dietary data collection, and the DHQ II is among the high-quality FFQs available to the research community."

Dietary Screener Incorporated into NHANES

The NCI provides funds to the [National Center for Health Statistics \(NCHS\)](#) to support modules in the [National Health and Nutrition Examination Survey \(NHANES\)](#) that are critical to the risk factor monitoring mission of ARP's Risk Factor Monitoring and Methods Branch (RFMMB).

[Dr. Frances Thompson](#), Epidemiologist in RFMMB, worked with the NCHS to add a Dietary Screener Questionnaire (DSQ) to the NHANES 2009-10. The DSQ was developed to serve as a short instrument for use in time-constrained studies in which assessment of total diet is not needed. It is being employed in NHANES because that survey also collects 24-hour dietary recalls (24HR) and the DSQ can be calibrated to the more precise 24HR. The scoring algorithms that result from the calibration work enable researchers using the screener in other studies to improve the accuracy of estimates of dietary factors they assess. Researchers will also be able to compare their results to calibrated national estimates from NHANES. Dr. Thompson notes that "this screener instrument is a useful new resource for the public health nutrition community."

The screener is composed of 26 questions that ask about the consumption frequency in the past month of selected foods and drinks to capture intakes of fruits and vegetables, dairy/calcium, whole grains/fiber, added sugars, red meat, and processed meat. Each question was selected because of its [relationship to one or more dietary factors](#) of interest in dietary guidance. Researchers interested in a particular dietary factor can use just those questions related to that factor.

The DSQ was administered in English and Spanish by interviewers in the NHANES 2009-10 series. The instrument is publicly available in either the interviewer-administered version or a self-administered version (paper or Web-based) for researchers to use.

Development of the DSQ was supported by the NCI, the [Centers for Disease Control and Prevention \(CDC\)](#), the [National Heart, Lung, and Blood Institute \(NHLBI\)](#), the [NIH Office of Behavioral and Social Sciences Research \(OBSSR\)](#), and the [NIH Office of Dietary Supplements \(ODS\)](#).

To view or download the DSQ instrument, learn about evaluation work conducted to develop the questions, or obtain algorithms to convert DSQ responses to dietary intake estimates, visit <http://riskfactor.cancer.gov/studies/nhanes/dietscreen/>.

CHIS 2009 Yields Data on the Diets of Californians

The [California Health Interview Survey \(CHIS\)](#) is a telephone survey that provides population-based, standardized health-related data from households selected from all 58 counties in the state. The survey is carried out collaboratively by the [UCLA Center for Health Policy Research](#), the [California Department of Public Health](#), and the [California Department of Health Care Services](#). It is designed to provide information on:

- the health of California's adults and children, including physical and mental health status, prevalence and management of chronic diseases, and diet and exercise;
- health insurance coverage, access to preventive and other health services, and barriers to use of health services; and
- eligibility for and participation in state health programs.

NCI provides support for CHIS to field [cancer control questions](#) covering cancer risk factors, cancer screening behaviors, and cancer diagnosis. [Dr. Frances Thompson](#), Epidemiologist in RFMMB, worked with the UCLA Center for Health Policy Research and their technical advisory committees to develop a [dietary screener](#) for the most recent administration of CHIS (2009). The screener asked respondents for information about how frequently they consumed foods in 10 categories. The questions allowed researchers to gather information about intake of added sugars and certain fruits and vegetables. In addition, a question on frequency of eating fast food was asked.

The 2009 CHIS Diet Screener is composed of questions QA09_C13 to QA09_C21 of the [CHIS 2009 Adult Questionnaire](#). Data collected using the 2009 CHIS Diet screener are available on the CHIS website under "[Public Use Data Files](#)."

After consulting with NCI statisticians, Dr. Thompson developed rules for excluding extreme data responses in the screener, which are described on the RFMMB website under [Scoring Procedures](#). Scoring Procedures also describes the process of scoring the individual response data. A description and guidelines for the appropriate uses of the screener-estimated dietary intakes are found on the [Variance Adjustment](#) page. Validation results for the CHIS 2009 screener are presented on the [Validation](#) page. According to Dr. Thompson, "these measures of added sugars and fast food consumption can be used to enhance our understanding of how these behaviors are distributed

and how they relate to other dietary factors. They may also be useful for setting policies and evaluating their impact.”

Expanded Version of Health Disparities Calculator Available!

The [Health Disparities Calculator \(HD*Calc\)](#) is a statistical software program that generates multiple summary measures for evaluating and monitoring health disparities. Data such as cancer rates, survival, and stage at diagnosis, which are categorized by groups such as ethnicity, race, socioeconomic status, and geographic areas, can be used with HD*Calc to generate 11 absolute and relative summary measures of disparity.

HD*Calc can be used either as an extension of [SEER*Stat](#), which allows users to import Surveillance, Epidemiology and End Results (SEER) data, or on its own with other population-based health data, such as from the [National Health Interview Survey \(NHIS\)](#), [California Health Interview Survey \(CHIS\)](#), [Tobacco Use Supplement to the Current Population Survey \(TUS-CPS\)](#), and [National Health and Nutrition Examination Survey \(NHANES\)](#). The latest version of HD*Calc (Version 1.2.2) was released in June 2012.

New features of HD*Calc include:

- The SEER*Stat dictionary file allows users importing data from SEER*Stat to select variable types (i.e., time, disparity, stratification).
- Users can specify more than one Disparity variable (which HD*Calc will combine).
- Data are exportable to the Joinpoint Regression Program, allowing users to compute confidence intervals and test for significance in trends.

The HD*Calc project team at NCI includes Dr. Nancy Breen (development and research), Dr. Brenda Edwards (senior advisor), Dr. Denise Lewis (development and research), Antoinette Percy-Laurry (SEER liaison and research), and Susan Scott (communications and dissemination).

Dr. Breen notes that “disparities is a complex concept. HD*Calc is designed to help researchers explore that complexity in order to increase scientific rigor in measuring and understanding disparities. HD*Calc can be used with SEER*Stat and Joinpoint. It can also be used with any data for any disparities-related topic.”

HD*Calc is located on the SEER Web site at <http://seer.cancer.gov/hdcalc/>. The website provides

access to several HD*Calc training resources, including a webinar and tutorials.

HD*Calc is supported by the Surveillance Research Program and Applied Research Program within the NCI Division of Cancer Control and Population Sciences.

ARP Collaborating with International Partners to Advance Survey Methodology

ARP uses state-of-the-art design principles to ensure that questionnaires developed and used by ARP and collaborators function as intended. These principles state that questionnaires must:

- be related explicitly to particular analysis objectives;
- be understood by the survey respondents;
- ask for factual information or attitudes that respondents can recall from memory or retrieve from records;
- avoid response bias or other negative influences on respondents' decision processes;
- be formatted in a way that makes them useful to the interviewer as well as to respondents; and
- be designed in a way that minimizes data entry errors.

ARP's collaborations with international researchers on its questionnaire design and testing initiative have been particularly fruitful in recent years. For example, ARP staff are working with international investigators to develop "best practices" for questionnaire design, translation, and pretesting. The overall goal of this research is to develop measures (e.g., of cancer risk factors) that are conceptually and analytically comparable across racial/ethnic/cultural groups, and across multinational surveys. [Dr. Gordon Willis](#), ARP's lead researcher in this area, emphasizes that “careful attention to cross-cultural aspects of questionnaire design helps us to assure that the differences in the data that we observe between groups are real, and not simply a function of measurement error.”

To coordinate this research area, ARP staff participate in the international [QUEST group](#), composed of survey researchers from the US, Canada, the United Kingdom, New Zealand, Germany, The Netherlands, Sweden, Finland, Norway, and Spain.

ARP staff are working with researchers at [Utrecht University](#) on a common framework to report results of

questionnaire testing and evaluation. These guidelines are intended to be used by researchers and epidemiologists, and have been presented at the 2011 [European Survey Research Association](#) conference and the 2011 QUEST conference. The guidelines will be available after a period of review by the research community.

For more information about ARP's questionnaire design and testing activities, including tools that provide guidance on particular methods in this arena, please visit <http://appliedresearch.cancer.gov/areas/cognitive/>.

Provider and Health Surveys

New Medical Expenditure Panel Survey Supplement Assessing Burden of Illness in Cancer Survivors

A major component of the National Cancer Institute's mission is measuring and understanding the burden of cancer and its care in the United States. To help fulfill this mission, the ARP Health Services and Economics Branch (HSEB) supports the development and dissemination of data resources, survey and measurement techniques, and analytical methods— with the goal of improving the quality of research in this field and ultimately reducing the burden of cancer to patients, their families, and society.

The NCI is collaborating with the [American Cancer Society \(ACS\)](#), the [Centers for Disease Control and Prevention \(CDC\)](#), the NIH [Office of Behavioral and Social Sciences Research \(OBSSR\)](#), [LIVESTRONG](#), and the [Agency for Healthcare Research and Quality \(AHRQ\)](#) to provide supplemental funding to the [Medical Expenditure Panel Survey \(MEPS\)](#) to improve the quality of data for estimating the cancer survivorship burden in the United States. The MEPS is a nationally representative survey, conducted by the AHRQ, of the civilian non-institutionalized population of all ages in the U.S. The MEPS collects comprehensive data on health care utilization and expenditures. Each MEPS panel is a subsample of the prior year [National Health Interview Survey \(NHIS\)](#) respondents. Using responses to the NHIS question about cancer diagnoses, households with cancer survivors were oversampled for selection in the MEPS.

The increased sample of cancer survivors will improve national estimates of the burden of cancer. Additionally, the MEPS Experiences with Cancer questionnaire was fielded in cancer survivors to further understand the

burden of cancer, its treatment and impact on health care access, the ability to work and participate in usual activities, health insurance, and quality of care.

Availability of these data will allow scientists to use the MEPS data for many types of studies of the U.S. cancer burden. Specific cancer survivorship research questions that can be addressed with the MEPS data and data from the supplemental questionnaire include financial burden, access to medical care, employment and employment patterns, health care utilization and expenditures, and use of prescription drugs by cancer survivors.

The data from the Experiences with Cancer questionnaire will be available to the public in 2013. Data from the 2009 MEPS are currently publicly available for researchers. Please [see the MEPS Web site for more information](#).

[Dr. Robin Yabroff](#), Epidemiologist in ARP's HSEB, leads the MEPS Experiences with Cancer Survivorship Supplement. According to Dr. Yabroff, "we believe research using these data will inform efforts by health care policy makers, providers, and employers to improve the cancer survivorship experience in the U.S."

Policy-Relevant Research Syntheses

Cervical Cancer Mortality in Netherlands Similar to U.S. Despite Less Screening

Cross-national comparative studies can afford unique insights for health policy formulation. Habbema et al. (2012) used nationally representative data sources in the U.S. and the Netherlands to estimate the number of Pap tests and cervical cancer mortality rates in each country since 1950. U.S. data sources included the NCI [Surveillance, Epidemiology and End Results \(SEER\) Program](#) and [National Health Interview Survey \(NHIS\)](#).

The authors investigated two primary questions:

- 1) How do differences in intensity of Pap test use between the countries translate into differences in mortality trends?
- 2) Can population coverage rates explain the mortality trends better than the total intensity of Pap test use?

In this study, coverage rate is defined as the proportion of eligible women who had at least one Pap test within a specified period. The study found that although 3-4 times more Pap tests per woman were performed in the U.S. than in the Netherlands, mortality trends in the two

countries were similar between 1970 and 2010. In the U.S., test intervals tended to be concentrated in the 1–3 year range for women between the ages of 30 and 64; in the Netherlands, tests were initially provided at a 3-year interval and, more recently, at a 5-year interval. Five-year coverage rates were very similar for the U.S. and the Netherlands for the 30–60 age range, and so were cervical cancer mortality trends.

For women younger than 30, coverage in the Netherlands was very low and decreased over the study period, consistent with national guidelines. In contrast, U.S. coverage was the same for women younger than 30 as for women aged 30–64. The authors suggest that the high coverage rate in these younger U.S. women may reflect the 2003 American Congress of Obstetricians and Gynecologists (ACOG) guidelines (annual screening for women under age 30) and the greater provision of primary care by OB-GYNs in this age group. The authors highlight the most recent (2009) ACOG guidelines, which recommend Pap testing no more often than biennially based on evidence of clinical benefit, decreased costs, and avoidance of unnecessary and potentially harmful interventions.

With respect to older women, the authors note that the pattern of Pap testing for U.S. women well beyond the age of 60 is unlikely to have been efficient, although they point out that the Netherlands lagged behind the U.S. in reducing cervical cancer mortality in this age group. They suggest that the Netherlands could have achieved greater success by providing “catch-up” Pap testing for women who were older than the upper age of the screening schedule and had never been tested before implementation of the national screening program.

The authors conclude that during the study period, the cervical cancer screening system in the Netherlands appears to have been as effective as the U.S. system while using much less screening, and that the cost effectiveness of the Netherlands system seems to be attributable to the appropriate coverage of the population at risk. The role and potential impact of differences between how the two countries’ screening programs are organized are discussed.

Reference: Habbema D, De Kok IM, Brown ML. Cervical cancer screening in the United States and the Netherlands: a tale of two countries. *Milbank Quarterly* 2012 Mar;90(1):5–37.

Study Highlights Disparities in Adherence to Dietary Guidance

A recent analysis examined adherence to dietary guidance among U.S. adults and children by family income and race/ethnicity using data from the 2001–2004 [National Health and Nutrition Examination Survey \(NHANES\)](#), a cross-sectional nationally representative survey. Methods developed at the National Cancer Institute were used to estimate the proportions of adults and children, by income and race/ethnic group, whose usual intakes met recommendations from the [2005 Dietary Guidelines for Americans](#) and MyPyramid.

Although the diets of the vast majority of Americans fare poorly when compared to recommendations, the findings show that some subgroups are doing worse than others. The predominant pattern among adults was higher rates of adherence to food group recommendations among those in the highest compared to the lowest and middle income groups. Among children, the findings were more mixed, with smaller proportions of children in the highest income group meeting recommendations for some food groups, compared to the other income groups.

Among the race/ethnicity groups, the proportions meeting recommendations were generally lowest among non-Hispanic black adults and children. Marked differences were observed for milk—15% of non-Hispanic Black children met the minimum recommendations compared to 42% of non-Hispanic white children and 35% of Mexican American children; a similar pattern was evident for adults. One in five Mexican American adults met the dry beans and peas recommendations compared to approximately 2% of non-Hispanic White and Black adults. Among the subgroups with the lowest adherence to recommendations (i.e., lower income and non-Hispanic Black adults and children), the most problematic food groups included whole fruits, total vegetables and some vegetable subgroups, whole grains, and milk.

Most adults and children consume excess energy from solid fats and added sugars, irrespective of income and race/ethnicity. These findings have implications beyond individual dietary choices— to the foods available in retail outlets, restaurants, schools, worksites, and health care facilities, which tend to offer a plethora of energy-dense packaged and processed foods. A paper describing this analysis, authored by [Dr. Sharon Kirkpatrick](#) and colleagues, was recently published in the *Journal of the Academy of Nutrition and Dietetics* (Kirkpatrick et al., 2012). Other work underway is examining the alignment

of the menu offerings of fast food restaurants with dietary guidance. The nutritional quality of fast food environments has potential implications for health disparities related to income and race/ethnicity, given the tendency toward greater availability of fast food restaurants in low-income and minority neighborhoods in the U.S.

Reference: Kirkpatrick SI, Dodd KW, Reedy J, Krebs-Smith SM. Disparities in adherence to food-based dietary guidance among U.S. adults and children in relation to income and race/ethnicity. *Journal of the Academy of Nutrition and Dietetics* 2012, 112(5):624-635.

Funding Opportunities and Grant Portfolio

Funding Opportunities

ARP's Program Announcements are listed [here](#). Additional ARP funding opportunities are listed [here](#).

ARP is a recipient of funding from the [American Recovery and Reinvestment Act \(ARRA\)](#), particularly in support of comparative effectiveness research (CER). An article describing the NCI Division of Cancer Control and Population Sciences (DCCPS) CER portfolio appears in the *Research Initiatives* section of this issue.

The DCCPS [CER website](#) describes CER and the NCI CER-related activities supported by ARRA funding. It also lists CER funding opportunities.

Grant Portfolio

ARP's diverse grant portfolio, including investigators' names, project titles and abstracts, and links to publications, is found at <http://cancercontrol.cancer.gov/grants/query.asp?program=ARP>.

Profiles of specific grantee projects are posted on ARP's [Grantee Research Highlights website](#).

Application Policies and Procedures

Detailed information concerning funding application policies and procedures is found at <http://grants.nih.gov/grants/peer/peer.htm>.

2011 Meetings and Training Opportunities

Webinars Provide Approaches for Reducing Dietary Measurement Error

Collaborators from the NCI, NIH Office of Dietary Supplements, U.S. Department of Agriculture, Gertner Institute, Information Management Services, Inc., Texas A&M University, and Wake Forest University organized and hosted a Measurement Error Webinar Series aimed at disseminating important advances in quantifying and correcting problems caused by measurement error in dietary intake data. The webinars drew mainly upon methods developed at the NCI. The webinar series is expected to promote more proficient use of dietary data, and thereby advance the NCI's mission in cancer control and population sciences.

The live webinars, which ran from September 20th to December 6th, 2011, drew more than 250 participants, including participants from universities and cancer research institutions in several countries. Over 700 researchers from more than 10 countries joined the series listserv, demonstrating great interest in capacity building in this area.

Dietary epidemiological, intervention, and surveillance research has the potential to greatly augment our understanding of cancer control. Unfortunately, [dietary assessment](#) typically relies on self-report instruments, which are affected by several types of measurement error. This error must be accounted for using appropriate statistical techniques to avoid misleading conclusions.

The goal of the webinar series was to provide participants with an understanding of:

- the sources and magnitudes of dietary measurement error;
- how measurement error may affect estimates of usual dietary intake distributions;
- how measurement error may affect analyses of diet-health relationships; and
- how the effects of measurement error may be mitigated.

The webinar series also addressed concepts related to accounting for complex survey methods, estimating total intakes from diet and supplements, and using multiple assessment instruments and self-report data along with biomarker data to reduce measurement error.

A full archive of the webinar series is available at <http://riskfactor.cancer.gov/measurementerror/>. The

webpage details the topics addressed during each session along with objectives, recommended resources, and key terms. In addition to the recordings, which can be viewed online, multiple versions of the slide sets along with speaking notes are available for download. Additional supporting materials, including a glossary, are also accessible on the webpage.

Dr. Sharon Kirkpatrick (RFMMB) produced the series and developed and presented the first webinar. Drs. Regan Bailey (NIH Office of Dietary Supplements), Raymond Carroll (Texas A&M University), Laurence Freedman (Gertner Institute), Janet Tooze (Wake Forest University Baptist Medical Center), and Drs. Kevin Dodd, Victor Kipnis, and Douglas Midthune (all with the NCI Division of Cancer Prevention) each prepared and presented one or more webinars.



The series was dedicated to the memory of Dr. Arthur Schatzkin, in recognition of his internationally renowned contributions to the field of nutrition epidemiology and his commitment to understanding the measurement error associated with dietary assessment.

Discrimination and Health Conference Propels Scientific Inquiry

An NCI conference, “The Science of Research on Discrimination and Health,” was held in Bethesda, MD on February 2–4, 2011. Sponsored by the Applied Research Program and Behavioral Research Program within the NCI Division of Cancer Control and Population Sciences, the conference examined the research and research methods for investigating the role of racial/ethnic discrimination in health.

The conference purposes were to: 1) promote the science/research on racial/ethnic discrimination and its contribution to racial/ethnic disparities in health; 2) identify gaps in the research literature and areas for future research and/or NCI/NIH funding initiatives; and 3) increase awareness of the NCI’s interest in funding research in this topic area through the Program Announcement, *The Effect of Racial and Ethnic Discrimination/Bias on Health Care Delivery* (PA-11-162, PA-11-163, PA-11-164).

Meeting presenters discussed institutional racism, personal prejudice/bias, implicit attitudes and

stereotypes, stereotype threat, strengths and limitations of existing instruments and methodologies for measuring the prevalence of or exposure to racial/ethnic discrimination, the effect of chronic exposure to discrimination over the life course, and several additional topics. Dr. Vickie Shavers, formerly an epidemiologist in ARP’s Health Services and Economics Branch, and Dr. William Klein, Associate Director, Behavioral Research Program served as the Conference Planning Committee Chair and Co-Chair, respectively.

Response to the conference and the stellar panel of speakers was overwhelmingly positive. As explained by Dr. Shavers: “We accomplished many things with this conference. First, we brought together scientists who were interested in research in this area, which facilitated new potential collaborations and renewed old ones. Speaker presentations and the ensuing discussions with conference participants enhanced our understanding of the importance of research on discrimination and health, introduced new methodologies and strategies for pursuing research in this area, and helped to define future research needs.”

For more information, visit <http://conference.novaresearch.com/SRDH> and view the archived videocasts: [Day 1](#), [Day 2](#), and [Day 3](#).

See also the *Research Initiatives* section of this issue for an announcement of a special May 2012 *American Journal of Public Health* theme issue on this topic.

Workshop Integrates Environmental Design and Childhood Obesity Prevention

NCI and other partners in the [National Collaborative on Childhood Obesity Research \(NCCOR\)](#) worked with the [National Academy of Environmental Design](#) and the [U.S. Green Building Council Center for Green Schools](#) to co-host a workshop on October 26-28, 2011 in Washington, DC.

The workshop, “Green Health: Sustainable Neighborhoods & Schools for Healthy Kids,” examined:

1. how environmental design strategies can be better utilized to promote physical activity and healthy eating in school environments; and
2. how childhood obesity prevention can be better integrated into school-based sustainability and green building initiatives.

Participants from design, urban planning, and public health as well as representatives from multiple Federal agencies discussed research opportunities and

requirements to help develop and evaluate innovative 'green health' strategies within schools.

The meeting included a session on "New Tools for 'Green Health' Design Research," including a presentation by [Dr. James McClain](#), Physical Activity Epidemiologist in RFMMB, on "Distributed Sensor Networks for Physical Activity Tracking." Other talks included "Complex Systems Modeling and Health-focused Environmental Design" and "USGBC Green Building Information Gateway." [Dr. Matthew Trowbridge](#) (University of Virginia) led the conference while serving in a visiting appointment with ARP.

DCCPS Sponsors Meeting on Multilevel Interventions in Health Care

On March 4-5, 2011 in Las Vegas, NV, the NCI [Division of Cancer Control and Population Sciences](#) convened a meeting entitled, "Multilevel Interventions in Health Care: Building the Foundation for Future Research." The meeting served as a forum for discussing multilevel theory, models, and methods from several disciplines, exploring interactions across levels, and exploring the efficacy of multilevel interventions in cancer care and other health conditions. It also identified priorities for future research and explored research designs and measurement approaches. More than 160 researchers, clinicians, public health practitioners and health administrators attended the conference.

The NCI Planning Committee for the meeting was composed of Co-Chairs [Dr. Stephen Taplin](#) and [Dr. Steven Clauser](#), Program Leads [Dr. Mary Fennell](#) and [Dr. Jane Zapka](#), and Committee Members [Dr. Rebecca Anhang Price](#), [Dr. Erica Breslau](#), [Ms. Veronica Chollette](#), [Dr. Heather Edwards](#), and [Dr. Irene Prabhu Das](#). For more information, visit <http://cancercontrol.cancer.gov/mli>.

2012 Meetings and Training Opportunities

PROSPR Initiative Holds First Meeting

The [Population-based Research Optimizing Screening through Personalized Regimens \(PROSPR\)](#) initiative held its first in-person meeting on March 7-8, 2012 in Rockville, MD with nearly 50 attendees from each of the seven Research Centers, the Statistical Coordinating Center, the National Cancer Institute, and the Centers for Disease Control and Prevention. The group focused their discussion on the development of common data for the PROSPR data repository. Attendees also discussed future

project opportunities within each organ site and across all PROSPR Research Centers. A second meeting is planned for September 12-13, 2012 in Seattle.

Workshop Builds Knowledge of the U.S. Food System

In January 2012, the [National Collaborative on Childhood Obesity Research \(NCCOR\)](#) hosted a two-day workshop in Washington, DC, on surveillance of the food system as a first step in improving understanding of the U.S. food system and its influences on children's weight status.

A [Farm to Fork](#) project, the meeting included representatives from NCCOR funding partners: the Centers for Disease Control and Prevention (CDC), National Institutes of Health (NIH), Robert Wood Johnson Foundation (RWJF) and U.S. Department of Agriculture (USDA) as well as researchers, advocates, research funders, and policy makers concerned with how the U.S. food system is monitored.

The meeting was designed to:

- enumerate existing resources that characterize the U.S. food system;
- identify gaps in current efforts;
- propose mechanisms to fill those gaps;
- identify data needed to inform policy makers; and
- further the goal of improving diet quality and reducing childhood obesity.

Workshop presentations focused on the data sources used to describe and monitor the U.S. food supply, efforts to monitor food security and food assistance programs and track food purchases, and surveillance systems that track and measure consumers' food consumption behaviors and eating patterns.

[Dr. Susan Krebs-Smith](#), RFMMB Chief, served on the workshop organizing committee and presented the segment, "Closing Thoughts and Looking Ahead: Surveillance of the Food System." [Dr. Jill Reedy](#), RFMMB Nutritionist, facilitated discussion of the U.S. food supply.

Following the presentations, participants offered ideas for future workshops, discussion sessions, and other activities. Suggestions included exploring and filling in data gaps, investigating the relationship between current data monitoring systems to learn how they can be most effectively used to answer research questions, and exploring the role NCCOR can play in helping to advance future progress in food system surveillance.

Workshop Advances Research Agenda for Youth Energy Expenditure

On April 19-20, 2012, the [National Collaborative on Childhood Obesity Research \(NCCOR\)](#) convened leading physical activity researchers for a [Youth Energy Expenditure Expert Workshop](#) in Atlanta, Ga. Given that the adult “Compendium of Physical Activities” has enhanced the comparability of energy expenditure measurements in diverse physical activity studies, NCCOR hopes this workshop and its subsequent activities will contribute to the NCCOR goal of fostering comparable measures of physical activity energy expenditure for research and evaluation.

Workshop participants engaged in presentations and discussions about:

- methods for measuring and comparing youth energy expenditure;
- plans for improving an existing compendium of youth energy expenditure; and
- opportunities and challenges associated with developing a repository of individual youth energy expenditure values.

Attendees included approximately 30 leading researchers from NIH, CDC, the Environmental Protection Agency (EPA), and university researchers from the U.S. and Australia.

Co-organizer [Dr. David Berrigan](#) (ARP Risk Factor Monitoring and Methods Branch) gratefully acknowledges the workshop’s other co-organizer, Janet Fulton (CDC), and funding from CDC, NCCOR, and NCI that made this workshop possible. “The workshop highlighted the facts that children are not simply small adults and that children’s physical activities occur in mixtures of activities that include different intensities and behaviors,” said Dr. Berrigan. A clear conclusion of the workshop was that further refining the compendium of youth energy expenditures and developing a repository of individual level energy expenditure data could contribute significantly to research and practice.

ICDAM Advances Methods in Diet and Physical Activity Assessment

RFMMB and OAD staff attended the [8th International Conference on Diet and Activity Methods \(ICDAM 8\)](#) on May 14-17, 2012 in Rome, Italy. [Dr. Amy Subar](#) was on the planning committee, and others in RFMMB gave presentations, chaired sessions, and led workgroups on topics including assessment of food environments, new

technologies for dietary assessment, dietary patterns and colorectal cancer incidence, development and evaluation of the Healthy Eating Index - 2010, and several aspects of physical activity measurement.

ICSN to Hold Biennial Meeting in Sydney, Australia

The [International Cancer Screening Network \(ICSN\)](#) will hold its biennial meeting on October 23-25, 2012 in Sydney, Australia. The meeting is being co-sponsored by the NCI and the [Sydney International Breast Cancer Congress \(SIBCC\)](#). Topics will include: cancer burden in developed and developing countries; evaluating new technologies and their readiness for incorporation into organized screening programs; benefits, harms, and costs of cancer screening programs; factors influencing policy and decision making; roles of allied health professionals and lay health workers in cancer screening; and incorporating cancer prevention strategies into organized screening programs.

The early-bird registration deadline is August 23, 2012. For more information, visit <http://www.cancermeetings.org/ICSN2012/>.

Welcome New ARP Staff

Emilee Pressman



[Emilee Pressman, MPH](#) is a Public Health Advisor in the Office of the Associate Director in ARP. Before joining ARP, Ms. Pressman was a Presidential Management Fellow at the NIH Office of the Director's Office of Extramural

Research, where she served as an analyst on policies related to New and Early Stage Investigators and the Inclusion of Women and Minorities in Clinical Research. Prior to joining NIH, she completed her MPH at Columbia University in the Department of Population and Family Health. During her stay in New York, she worked with the New York City Department of Health and Mental Hygiene's Vital Statistics and Built Environment groups and Columbia University Medical Center's Department of Obstetrics and Gynecology.

Ms. Pressman manages ARP's grants portfolio, analyzes and coordinates personnel policies and procedures for ARP, and provides support to many ARP initiatives including the [Population-based Research Optimizing](#)

[Screening through Personalized Regimens \(PROSPR\)](#) initiative, [Cancer Research Network \(CRN\)](#), and [International Cancer Screening Network \(ICSN\)](#).

Samantha Williams



[Samantha Williams, MPH](#) is a Program Analyst in the Office of the Associate Director in ARP. Prior to joining ARP, Ms. Williams was a Health Science Analyst at

NCI's Office of Science Planning and Assessment, where she assisted with congressional reporting, strategic planning, and meeting coordination. She first came to NCI as a Health Communications Intern, and also worked with the Epidemiology and Genomics Research Program. Prior to coming to NIH, Ms. Williams worked for the South Carolina Department of Health and Environmental Control in Hazardous Waste Management. She obtained her MPH from the University of South Carolina and her Bachelors in Biology from Converse College.

Ms. Williams's activities in ARP include managing systems for conference planning, providing analyses on contracts and budget, contributing to strategic planning, and providing support to the Health Services and Economics Branch and the Outcomes Research Branch.

Tiffany Powell



[Dr. Tiffany Powell, MD, MPH](#) is an assistant clinical investigator with a joint appointment in the Office of the Associate Director of ARP and the Cardiopulmonary Branch of the

National Heart, Lung, and Blood Institute (NHLBI). Before joining ARP, Dr. Powell completed her cardiology fellowship at the University of Texas Southwestern (UTSW) in Dallas, Texas.

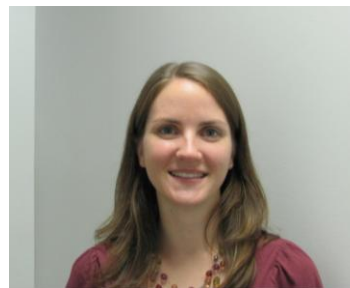
From 2009 to 2011, Dr. Powell served as a clinical research fellow in the Reynolds Cardiovascular Research Center at UTSW. Her research focused on evaluating perceptions of health and access to care as social determinants of obesity in the Dallas Heart Study. In

addition, Dr. Powell played a key role in the operational management and analysis of a community-based participatory research project designed to improve cardiovascular risk factors using lay health promotion in predominantly African American churches in Dallas County.

At ARP, Dr. Powell is conducting epidemiologic studies on the role of the environment in modifiable risk factors of chronic disease in an effort to identify new targets for community-based interventions, particularly for underserved populations.

Dr. Powell received a BSE in chemical engineering at the University of Michigan in 1998. She graduated from Duke University School of Medicine in 2004 and completed her MPH in Epidemiology at the University of North Carolina at Chapel Hill in 2003. During medical school, Dr. Powell spent one year as a research fellow in NHBLI as a part of the Clinical Research Training Program (CRTP). Dr. Powell completed her internal medicine residency at Brigham and Women's Hospital in Boston, MA prior to her cardiology fellowship at UTSW.

Heather Rozjabek



[Heather Rozjabek, MPH](#) is a Research Associate in the ARP Office of Associate Director. Prior to joining ARP, Ms. Rozjabek worked with the Pennsylvania Department of Health and the Pennsylvania

Cancer Education Network to develop a county-level colorectal cancer burden index and perform geospatial analyses to evaluate access to cancer education sessions. Ms. Rozjabek is a graduate of Haverford College, where she received a BS in Biology with a concentration in Biochemistry. She also holds an MPH degree with a concentration in Epidemiology from Drexel University School of Public Health.

Ms. Rozjabek's activities with ARP include providing scientific guidance and management support to the [Population-based Research Optimizing Screening through Personalized Regimens \(PROSPR\)](#) initiative, the [International Cancer Screening Network \(ICSN\)](#), and the [Breast Cancer Surveillance Consortium \(BCSC\)](#), as well as analyzing and reporting on ARP's comparative effectiveness research (CER) portfolio. She also is providing support to a few research initiatives in the [NCI Community Cancer Centers Program \(NCCCP\)](#).

Jana Eisenstein



Jana Eisenstein, MS is a Research Associate in the Office of the Associate Director of ARP. Ms. Eisenstein completed her Master's degree in Public Health Microbiology & Emerging Infectious Diseases at the George Washington University, after which she spent time working in virology and microbiology labs in Boston-area hospitals.

More recently her interests shifted her out of the lab, and she worked as a research assistant at a private public health research institution in Atlanta, GA. There she assisted in the creation and evaluation of various programs, including a train-the-trainer program for *promotores de salud*, a web-based supplement for the NIDA Brain Power curriculum, and a multimedia program aimed at parents and teachers of children with cochlear implants. Ms. Eisenstein supports a number of ARP researchers on topics such as [physical activity engagement](#), [health disparities](#), and [adverse event reporting](#).

Stephanie M. George



Dr. Stephanie M. George, PhD, MPH, MA is a postdoctoral CRTA fellow and cancer epidemiologist who joined ARP in August 2011 and is under the mentorship of Dr. Rachel Ballard-Barbash, ARP Associate Director.

The underlying theme of Dr. George's work has been to understand the impact of energy balance-related behaviors on cancer risk and health after cancer. In ARP, using epidemiologic data on cancer survivors from the [Health, Eating, Activity, and Lifestyle \(HEAL\) study](#), the NHLBI-funded Women's Health Initiative (WHI), and the Childhood Cancer Survivor Study (CCSS), she is conducting investigations to examine how energy balance is related to prognosis, cancer-related comorbidities, and measurable biological factors that predict survival. She is also interested in the state of energy balance assessment in clinical practice for patients with chronic conditions like cancer and is

analyzing data from the [National Survey of Energy Balance-related Care among Primary Care Physicians \(EB-PCP\)](#) to answer this question.

Dr. George also designs and leads methodological research to improve tools for assessing diet, physical activity, and sedentary behavior in population studies, and has worked with the [Observing Protein Energy and Nutrition \(OPEN\) study](#) and two studies testing the measurement properties of the [Automated Self-administered 24-hour Dietary Recall \(ASA24™\)](#), the Food Eating Assessment (FEAST) Study and the Food Reporting Comparison (FORCS) Study.

Dr. George is trained in cancer epidemiology, public health, and communication, with degrees from Yale University (PhD in Cancer Epidemiology, MPH with concentration in Chronic Disease Epidemiology) and University of Maryland, College Park (MA and BA in Communication).

Britni Belcher



Dr. Britni Belcher, PhD, MPH is a Cancer Prevention Fellow in the Office of the Associate Director of ARP. She earned her MPH with an emphasis in Biostatistics/ Epidemiology and her

PhD in Health Behavior Research from the University of Southern California in Los Angeles in May 2011. Dr. Belcher's main research interest is the multiple factors that influence the adolescent energy balance transition. She also has a strong interest in the biological basis of physical activity and sedentary behavior.

Dr. Belcher's doctoral work examined sociodemographic, biological, and dietary influences on physical activity and sedentary behavior in minority adolescents. Her current work at NCI focuses on physical activity measurement and characterizing the pubertal physical activity decline.

Neetu Chawla



Dr. Neetu Chawla, PhD, MPH is a Cancer Prevention Fellow in the Outcomes Research Branch of ARP. She earned her PhD from the Department of Health Services at the UCLA School of Public Health.

She earned her MPH from the Department of

Community Health Sciences at the UCLA School of Public Health and her BA in English literature from the University of California, Berkeley.

Utilizing quantitative and qualitative methods, Dr. Chawla's research examines racial/ethnic disparities and social determinants of health within the context of cancer prevention and cancer survivorship. Her dissertation research is a qualitative examination of patient-provider relationships and social networks among South Asian breast cancer survivors.

Paige Miller



Dr. Paige Miller, PhD, MPH, MS, RD is a Cancer Prevention Fellow in the Risk Factor Monitoring and Methods Branch of ARP. Dr. Miller earned an MPH in quantitative methods from the Harvard School of Public Health, an MS and PhD in nutritional sciences from the Pennsylvania State University, and a BA from Duke

University in public policy studies. She also completed a dietetic internship at the James A. Haley Veterans' Hospital.

Dr. Miller's dissertation research focused on dietary patterns, meat-related compounds, and colorectal cancer risk. Dr. Miller's thesis work for her MS degree investigated dietary supplement use among older adult cancer survivors. Her research for her MPH degree addressed differences in dietary patterns between rural and urban older adult cancer survivors and associations with obesity. As a Cancer Prevention Fellow, Dr. Miller is exploring policy-relevant diet and cancer research questions and furthering her research into [dietary assessment and dietary pattern methodology](#).

Staff Spotlights

James McClain



Dr. James McClain, PhD, MPH, is a Physical Activity Epidemiologist with the Risk Factor Monitoring and Methods Branch in ARP. Dr. McClain earned a BS and MS in Exercise Physiology from Iowa State University, a PhD in Physical Activity, Nutrition, and Wellness from Arizona State University, and an MPH from Johns Hopkins

Bloomberg School of Public Health.

Dr. McClain focuses on exposure assessment in physical activity as a tool to link movement patterns to mechanisms of chronic disease prevention. His current interests focus on the use of sensor technologies for assessing health behaviors in clinical or intervention settings and applications of these technologies for outcomes reporting to patients, electronic medical records, and health research.

Dr. McClain's current projects include developing methods and applications for behavioral monitoring, surveillance, or interventions utilizing existing wireless networks and health-related sensor technologies. Monitoring lifestyle behaviors (e.g., physical activity, dietary intake, sleep) for health research or surveillance has historically relied on highly centralized data collection systems within government or academic institutions. Data have been collected using a combination of in-person or telephone-administered questionnaires and recalls, physical examinations, and remote monitoring using specialized sensors that objectively measure physical activity, including motion sensors and global positioning systems (GPS).

Advances in personal consumer technology (e.g., wireless monitoring devices and smartphones) have enabled the creation of a nationally distributed network. Because this network can collect data from very large, population-based samples, it has the potential to enhance research capacity for behavioral monitoring and interventions. It also avoids the relatively high cost per person associated with centralized systems. Looking forward, novel methods for capturing behavioral health data will complement more traditional approaches, enhancing surveillance and research capacity.

Sandra Mitchell



Dr. Sandra Mitchell, PhD, CRNP is a Research Scientist in the Outcomes Research Branch of ARP. A board-certified Acute Care Nurse Practitioner, Dr. Mitchell received her PhD from the University of Utah with a focus in quantitative methods.

Prior to joining ORB in 2010, Dr. Mitchell was a Research Scientist in the NIH Intramural Research Program. Her work focuses on the development and testing of measures to characterize symptom burden, physical function, and sleep and fatigue in patients with cancer, and the application of these outcomes to improve the evaluation of therapeutic response and treatment toxicity in cancer clinical trials. She is particularly interested in the application of latent variable mixture modeling to identify symptom profile subgroups and to model reciprocal patterns in the trajectories of patient-reported outcomes over time.

Dr. Mitchell is leading a program of research focused on the development and testing of patient-reported and performance-based outcome measures, and their application to improve the evaluation of therapeutic response and treatment toxicity in cancer clinical trials, observational studies, and routine clinical care.

Dr. Mitchell serves as the NCI Program Director for the development and testing of the [Patient-Reported Outcomes Version of the Common Terminology Criteria for Adverse Events \(PRO-CTCAE\)](#), a new measurement system to integrate patient reporting of symptomatic cancer treatment-related adverse events into cancer clinical trials. PRO-CTCAE may ultimately prove useful as an outcome measure in comparative effectiveness research (CER) and for characterizing the severity and impact of symptom burden in patients with cancer. Dr. Mitchell also maintains a clinical practice as a nurse practitioner in the NCI Chronic Graft-Versus-Host Disease (GVHD) Multidisciplinary Clinic and Study Group.

Dr. Mitchell received undergraduate and master's degrees from the University of Toronto and the University of Rochester, and a PhD from the University of Utah with a focus in quantitative methods. The author of more than 60 publications in biobehavioral symptom management, functional status, cancer survivorship, and the application of quality-of-life outcomes in evaluating

therapeutic response to treatment, her work has been recognized with numerous awards, including two NIH Clinical Center Director's Awards, the Faye G. Abdellah Publication Award from the US Public Health Service, and the Oncology Nursing Society's Award for Excellence in Nursing-Sensitive Patient Outcomes. She is a reviewer for journals including *Journal of Pain and Symptom Management*, *Supportive Care in Cancer*, and *Expert Review of Pharmacoeconomics and Outcomes Research*.

Nancy Potischman



Dr. Nancy Potischman, PhD, is a Nutritional Epidemiologist in the ARP Office of the Associate Director. She received her BS in Biochemistry from the University of Massachusetts and her PhD in Nutritional Sciences from Cornell University. Dr. Potischman was involved in epidemiologic research, particularly of female tumors, in the

Division of Cancer Epidemiology and Genetics at NCI from 1989 to 1999. Before joining the Division of Cancer Control and Population Sciences in 2001, she was Associate Professor of Epidemiology in the School of Public Health at the University of Massachusetts.

Dr. Potischman's primary research efforts focus on biomarkers of nutritional status and hormonal factors related to cancer. She has conducted methodological work for improved dietary assessment methods and laboratory quality control issues. Her work has included comparing estimates from commonly used dietary questionnaires to serologic measures, as well as applications of new techniques to minimize measurement errors. Dr. Potischman is active in the NCI Measurement Error Working Group and has experience with measurement issues related to physical activity, anthropometry, and diet.

Her current work involves developing food frequency questionnaires for pregnant and lactating women, addressing how best to assess diet in children, assessing diet in the distant past, and developing an [Automated Self-administered 24-hour Dietary Recall instrument \(ASA24\)](#). She led the effort to develop a Researcher Website that enables extramural scientists to access the ASA24 for their research or clinical studies. As part of the effort to demonstrate the feasibility and validity of the

ASA24 for extramural researchers interested in the utility of the instrument for large population studies, she is leading a validation study of the ASA24 and will compare it to the standard interviewer-administered instrument used in national surveys. She is collaborating with extramural researchers to evaluate the extent to which study participants will complete the ASA24 compared with the standard instrument.

Together with other NCI staff and extramural researchers, Dr. Potischman is involved in a pooling project of measurement error in dietary instruments that will inform future analytic approaches to nutritional epidemiologic data. Another area of interest involves evaluating early life factors and risk factors across the life span, in relation to each other, and in relation to cancer risk in adulthood.

Dr. Potischman is the NCI lead for a collaborative study of folate exposure involving the NCI, NIH Office of Dietary Supplements, U.S. CDC, and China CDC. Read the article in the *Research Initiatives* section of this issue to learn more about the study.

Joan Warren



[Dr. Joan Warren, PhD](#) has been an Epidemiologist in the Health Services and Economics Branch of ARP since 1998. Dr. Warren received her BS in Nursing from Georgetown University and worked for 10 years in a variety of clinical settings. She received her PhD in Health Policy from the University of Maryland-Baltimore in 1989. In that same year, she joined the

Epidemiology Branch in the Office of Research at the Centers for Medicare and Medicaid Services (CMS). During her eight years at CMS, she worked extensively with Medicare claims, learning how to use the data for a range of health services research projects. Upon coming to NCI, she assumed responsibility for managing the [SEER-Medicare](#) database, which links Medicare eligible persons in the SEER data with their Medicare claims.

Dr. Warren's research has focused on the use of secondary data, such as the SEER-Medicare files, to assess patterns, outcomes, and costs of care. She has also worked extensively with researchers from

government and academic settings to promote standardization of measures and methods using secondary data. She has served as an advisor to numerous U.S. and international groups interested in secondary data and data linkages. Dr. Warren has authored or co-authored over 80 journal articles related to health services research or epidemiology. She serves as a reviewer for clinical and health services research journals. In 2002, she was the guest editor for a *Medical Care* supplement, "Use of SEER-Medicare Data for



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