DCCPS by the numbers FY 2014 Year in Review

The Division of Cancer Control and Population Sciences (DCCPS) at NCI achieves its mission by generating new knowledge and helping to ensure that the products of cancer control research are effectively applied in all segments of the population. Through innovative research initiatives, leadership, and the synthesis of knowledge and its dissemination, we continue to build this program to be the nation's model for cancer control science.

As a window into the many ways DCCPS provides return on investment, we highlight here just a few snapshots of progress in the past fiscal year.

DCCPS provides grantees with strategies to successfully manage their grants and advance their careers; opportunities to network with colleagues and NCI scientific staff; and information about tools, trends, and resources to support their research. In 2014,

- The <u>DCCPS grant portfolio</u> included approximately **750** grants valued at nearly **\$411** million, with work in the US and more than **37** countries.
- The division provided funding support to **21 new investigators**. DCCPS provided **information**, tools, and resources to help new grantees successfully manage their grants and advance their careers.
- The <u>DCCPS 2014 New Grantee Workshop</u> brought together approximately **40** new investigators who received their first R01 in 2012 and 2013.
- In FY 2014, DCCPS led the <u>funding of grants</u> in response to **5 new RFA initiatives** (4 of which are trans-NIH) and contributed to numerous others.





As of 2014, the Population-based Research Optimizing Screening through Personalized Regimens (PROSPR) Initiative had assembled data for 3,311,749 patients, 14,489 providers, and 3,918 facilities. The initiative supports critical research to better understand how to improve the screening process for breast, colorectal, and cervical cancers. PROSPR researchers are studying the comparative effectiveness of existing and emerging screening processes, as well as the balance of benefits and harms across recognized cancer risk profiles.



24,000 followers

in 2014.



DCCPS regularly showcases our grantees and their diverse research on its website. For example, in FY 2014, DCCPS featured **14 grantee**profiles in behavioral research.
Elsewhere on our website,
DCCPS-funded research is highlighted in such areas as

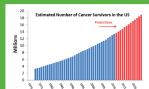
epidemiology and genomics and applied research. In addition, the DCCPS searchable database Cancer Control

Publications (CC Publications)

than **23,000 publications** from DCCPS-funded research.

As the population of cancer survivors continues to grow, it becomes increasingly important to understand and support the unique needs of cancer survivors.

- <u>Cancer survivor prevalence data</u> published in FY 2014 by DCCPS and colleagues at the American Cancer Society indicates a current figure of **14.5 million survivors** and projects the number of cancer survivors to increase by 31%, to almost 19 million, by 2024.
- In FY 2014, **58** researchers in DCCPS had <u>expertise in survivorship science</u>.
- More than 500 researchers, health care professionals, survivors, advocates, caregivers, press, and policy makers representing 32 countries attended the 2014 Biennial Cancer Survivorship Research Conference, which NCI co-sponsored with the American Cancer Society, LIVESTRONG, and the CDC.





Training the next generation of researchers is essential to expanding the cadre of independent investigators committed to conducting population-based cancer research. As of 2014, the investigators participating in the DCCPS Cancer Research Network (CRN)'s Scholars Program had generated more than **558 publications** and received funding for **102 grants**, primarily from NIH. The Scholars Program helps junior investigators to develop research independence using CRN resources to conduct population-based, multi-site, and multidisciplinary studies.



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Scientific advances have limited value unless they are translated into action. Research to Reality (R2R) is your online community of practice, linking cancer control practitioners and researchers and providing critical opportunities for discussion, learning, and enhanced collaboration on moving research into practice. In FY 2014,

- R2R membership grew to 2,338 members
- 50 new discussions were begun (46% by community members, 54% by NCI facilitators)
- a broad spectrum of virtual attendees registered for R2R monthly cyber-seminars:
 - ► 53% Public Health Professionals
 - ► 18% Researchers
- ► 11% Clinicians
- ► 4% Students
- ▶ 14% Other



DCCPS awarded more than **\$850,000** in FY 2014 to fund innovative research on the use of social media to understand and address tobacco use and addiction, through the **NIH Collaborative Research on Addiction** at NIH (CRAN) partnership with the National Institute on Alcohol Abuse and Alcoholism (NIAA) and the National Institute on Drug Abuse (NIDA).

CRAN integrates resources and expertise to optimize opportunities to advance substance use, abuse, and addiction research and public health outcomes.



Diet plays an important role in the prevention of cancer. Our **Automated** Self-administered 24-hour Dietary Recall (ASA24) tool provides evidence needed to implement programs to improve the health choices of Americans. As of 2014, more than **950 studies** had registered to use ASA24, and more than **130,000 24-hour recalls** had been collected. ASA24 is a freely available, web-based software tool that can be used for epidemiologic, intervention, behavioral, or clinical research. The tool provides the highest quality, least biased dietary data to the research community, clinicians, and MASA24 teachers — free of charge.

More than **50** journal articles using **Cancer Care Outcomes Research and Surveillance** Consortium (CanCORS) data have been published as of FY 2014. The consortium, which concluded in FY 2014, prospectively studied the quality of care and health outcomes of approximately 5,000 lung cancer patients and 5,000 colorectal cancer patients. Seven research institutions participated in CanCORS, and data from more than 1,500 health care providers and more than **700** caregivers were

Program Project grants (P01s) are particularly effective and highly productive interdisciplinary research collaborations that are needed to achieve larger objectives than can be supported through the traditional single project grant mechanism.

DCCPS funded 3 PO1s in FY 2014:

- Optimized Chronic Care for Smokers: A Comparative Effectiveness Approach
- Statistical Informatics for Cancer Research
- Dietary and Hormonal Determinants of Cancer in Women



As of FY 2014, **170** publications have used data from

Health care policy and health information environment variables relevant to survivorship care planning are dynamic and change rapidly. As of FY 2014, the

GEM-CP (Care-Planning) Workspace included

123 vetted measures

that assess constructs such as care coordination, adherence, and quality of life. Feedback on these measures was received from a range of stakeholders including clinicians, researchers, and advocates. Increased use of shared measures enables comparability across studies, facilitating identification of strategies to implement optimal care planning - or barriers to that planning -

GEM

for cancer

survivors.

the Health Information National Trends Survey (HINTS), which released new data in 2014 for free download. **Key HINTS** findings in 2014 included that familiarity with HPV does not necessarily translate into knowledge of the potential health consequences of the infection, and that there are important sociodemographic differences in HPV hintsbries knowledge and awareness.

Cancer researchers are asking highly sophisticated questions and proposing multifaceted scientific initiatives that require a team approach that incorporates expertise of many individuals from different scientific backgrounds. In 2014, the **Team Science Toolkit**, developed by DCCPS experts, included **920 resources** to help users engage in, manage, facilitate, support, or evaluate team-based collaboration in science. The Toolkit is an interactive website that consolidates knowledge in the Science of Team Science (SciTS) field, and facilitates resource sharing and information exchange among

the broad community of stakeholders interested in team science



Building the knowledge base



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To provide the scientific evidence needed to better inform the US Food and Drug Administration's (FDA's) regulatory authorities over tobacco products, DCCPS supports biomedical, behavioral, and social sciences research via funding from FDA. In FY 2014, the NCI-FDA Tobacco Regulatory Science Program (TRSP) research portfolio included 33 awards, for a total of nearly \$40 million dollars.

Through this interagency partnership, DCCPS is supporting research to address critical emerging issues such as the safety and marketing of e-cigarettes, particularly among youth.



The **OncoArray Network**, supported by DCCPS, is a unique opportunity to gain insight into genetic contributions to breast, ovarian, prostate, colorectal, and lung cancers with much greater depth than ever possible before. As of 2014, the consortium had assembled more than **400,000 samples** from existing studies and several biobanks from around the world. The goal is to better define who is at an increased risk of cancer compared to those who are at average or even lowerthan-average risk. The knowledge can lead us to an era of even better-defined precision medicine for cancer. Moreover, we're also learning lessons that help us understand modifiable risk factors, allowing us to make progress in preventing these diseases.





The Tobacco Control supplement "Electronic Nicotine Delivery Systems (ENDS): New Evidence from the State and Community Tobacco Control Research Initiative" was published in July 2014 in response to the urgent need for timely, relevant research on the marketing and use of electronic nicotine delivery systems to help guide state and community tobacco control policies and practices. The **9 original** research articles in the series were produced by investigators

in the **State and Community Tobacco Control** (SCTC) Research Initiative, funded by DCCPS.



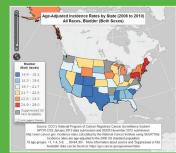
A variety of genomic datasets for cancer research are available in dbGaP to approved investigators through NCI's **Extramural Data Access** Committee (eNCI DAC), chaired by the DCCPS Epidemiology and Genomics Research Program. As of FY 2014, **56 datasets** for more than 30 types of cancer were available in dbGaP (the database of Genotypes and Phenotypes). dbGaP was developed to archive and distribute the results of studies that have investigated the interaction of genotype and phenotype. The advent of high-throughput, cost-effective methods for genotyping and sequencing has provided powerful tools that allow for the generation of the massive amount of genotypic data required to make these analyses possible.



In 2014, DCCPS launched the latest addition to the publicly available geospatial tools on **GIS.cancer.gov** for cancer surveillance and population-based cancer research. **NCI GeoViewer** allows users to create maps of cancer statistics, demographics, and risk factors. The tool provides access to **5 sets** of high-quality statistics: demographics, cancer incidence, cancer mortality, cancer prevalence, and screening and risk factors. For example, this Geoviewer-generated map of bladder cancer incidence rates shows the predominance of bladder cancer in the northeastern US.

Geovisualization helps identify areas, such as this, for greater epidemiologic investigation and as targets for interventions.

NCI GeoViewer



The Medical Expenditure Panel Survey (MEPS) Experiences with Cancer Survivorship Supplement and the Interagency Consortium to Promote Health Economics Research on Cancer (HEROiC) support research to understand the burden of cancer and its care in the United States. For example, recent MEPS study findings, analyzed in collaboration with NCI partners, showed that US cancer survivors face significant economic burdens due to growing medical costs, missed work, and reduced productivity – on average, **\$4,000** a **year** for men and \$3,000 a year for women over and above what people

who haven't had cancer spend. MMWR, 2014:63(23);505-10.





