



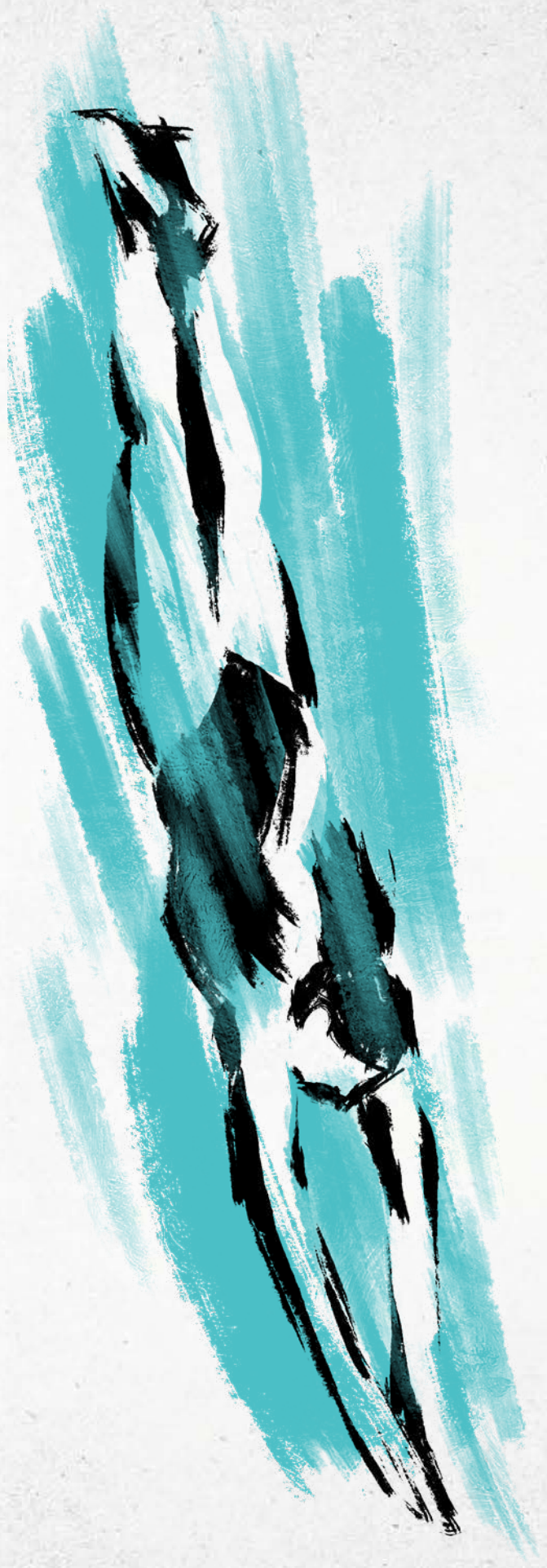
**PUTTING  
THE NATIONAL  
CANCER PLAN  
INTO ACTION**

A DEEPER LOOK AT CANCER  
RESEARCH AND CARE



2024 DCCPS Overview and Highlights

 NATIONAL CANCER INSTITUTE





# PUTTING THE NATIONAL CANCER PLAN INTO ACTION

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## MESSAGE FROM THE DIRECTOR

Welcome to the 2024 edition of our annual Division of Cancer Control and Population Sciences (DCCPS) Overview and Highlights report, where we shine a spotlight on the role that DCCPS-supported cancer control research plays in advancing the division's and the National Cancer Institute's scientific priorities.

The theme for this year's Overview and Highlights report is *Putting the National Cancer Plan into Action*. Through selected stories, we delve into some of the many strategies we are using across the division—in close collaboration with our grantee community and partners—to help achieve the eight ambitious goals of [the plan](#). Cancer control research is integral to addressing every aspect of the National Cancer Plan, and as such, we attempt

to illustrate the broad spectrum of research that DCCPS supports through the stories we share. We also hope to illustrate the unique contributions of the diverse disciplines and perspectives, robust scientific data sets and resources, multifaceted approaches, and collaborations employed across our scientific efforts.

While this report provides only a snapshot of the division's role in supporting the National Cancer Plan's goals, we hope it delivers a helpful glimpse into the contributions and impact of cancer control research. As we work towards our nation's overarching goal of reducing the consequences of cancer for all, DCCPS will continue to work with our funded research community, US Department of Health and Human Services colleagues, and partners to find innovative solutions to the

complex and evolving scientific challenges that create barriers to progress. Together, we intend to build on our strong scientific foundation, infrastructure, and the innovative ideas of our extramural community to dramatically improve the experience of cancer survivors, their families, and caregivers.

**KATRINA A. B. GODDARD, PHD**  
Director  
Division of Cancer Control  
and Population Sciences  
National Cancer Institute



# LEADERSHIP AT A GLANCE



OFFICE OF THE DIRECTOR  
**Dr. Katrina Goddard**  
DIRECTOR OF DIVISION OF CANCER  
CONTROL AND POPULATION SCIENCES

## 4 RESEARCH PROGRAMS







OFFICE OF THE DIRECTOR  
**Dr. Gary Ellison**  
 DEPUTY DIRECTOR



OFFICE OF THE DIRECTOR  
**Dr. David Chambers**  
 DEPUTY DIRECTOR FOR  
 IMPLEMENTATION SCIENCE



OFFICE OF THE DIRECTOR  
**Dr. Shobha Srinivasan**  
 SENIOR ADVISOR FOR  
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**Dr. Emily Tonorezos**  
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BEHAVIORAL RESEARCH  
 PROGRAM  
**Dr. William Klein**  
 ASSOCIATE DIRECTOR



BEHAVIORAL RESEARCH  
 PROGRAM  
**Dr. Linda Nebeling**  
 DEPUTY ASSOCIATE DIRECTOR



BASIC BIOBEHAVIORAL AND  
 PSYCHOLOGICAL SCIENCES  
**Dr. Paige Green**  
 BRANCH CHIEF



HEALTH BEHAVIORS RESEARCH  
**Vacant**  
 BRANCH CHIEF



HEALTH COMMUNICATION AND  
 INFORMATICS RESEARCH  
**Dr. Robin Vanderpool**  
 BRANCH CHIEF



TOBACCO CONTROL RESEARCH  
**Dr. Neal Freedman**  
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HEALTHCARE DELIVERY  
 RESEARCH PROGRAM  
**Vacant**  
 ASSOCIATE DIRECTOR



HEALTHCARE DELIVERY  
 RESEARCH PROGRAM  
**Dr. Janet de Moor**  
 DEPUTY ASSOCIATE DIRECTOR



HEALTHCARE ASSESSMENT  
 RESEARCH  
**Vacant**  
 BRANCH CHIEF



HEALTH SYSTEMS AND  
 INTERVENTIONS RESEARCH  
**Dr. Sarah Kobrin**  
 BRANCH CHIEF



OUTCOMES RESEARCH  
**Dr. Ashley Wilder Smith**  
 BRANCH CHIEF



## **THE NATIONAL CANCER PLAN**

The [National Cancer Plan](#) provides a comprehensive framework to clarify the pressing needs and approaches essential to ending cancer as we know it. The plan has three elements. First, it establishes goals that we must achieve to prevent cancer, reduce mortality from cancer, and maximize the quality of life for people living with cancer. The second component of the plan is a set of strategies associated with each goal, describing the essential research directions and implementation activities necessary to maximize benefits for everyone. The third and perhaps most important component of the National Cancer Plan is a call to action that is at the center of the Cancer Moonshot<sup>SM</sup>—that everyone in our society, every organization and individual, does their part to end suffering from cancer.



## EIGHT GOALS



### PREVENT CANCER

01

All people and society adopt proven strategies that reduce the risk of cancer.



### DELIVER OPTIMAL CARE

05

The health care system delivers to all people evidence-based, patient-centered care that prioritizes prevention, reduces cancer morbidity and mortality, and improves the lives of cancer survivors, including people living with cancer.



### DETECT CANCERS EARLY

02

Cancers are detected and treated at early stages, enabling more effective treatment and reducing morbidity and mortality.



### ENGAGE EVERY PERSON

06

Every person with cancer or at risk for cancer has an opportunity to participate in research or otherwise contribute to the collective knowledge base, and barriers to their participation are eliminated.



### DEVELOP EFFECTIVE TREATMENTS

03

Effective treatment, with minimal side effects, is accessible to all people with all cancers, including those with rare cancers, metastatic cancers, and treatment-resistant disease.



### MAXIMIZE DATA UTILITY

07

Secure sharing of privacy-protected health data is standard practice throughout research, and researchers share and use available data to achieve rapid progress against cancer.



### ELIMINATE INEQUITIES

04

Disparities in cancer risk factors, incidence, treatment side effects, and mortality are eliminated through equitable access to prevention, screening, treatment, and survivorship care.



### OPTIMIZE THE WORKFORCE

08

The cancer care and research workforce is diverse, reflects the communities served, and meets the needs of all people with cancer and those at risk for cancer, ensuring they live longer and healthier lives.



## THE ROLE OF CANCER CONTROL RESEARCH

Cancer control research plays a pivotal role in advancing the objectives outlined in the National Cancer Plan. It encompasses a wide range of disciplines, including epidemiology, behavioral science, health services research, and implementation science. Its primary aim is to identify effective strategies to reduce the burden of cancer on individuals, families, and communities.

One of the key goals of the National Cancer Plan is to reduce the incidence and mortality of cancer through prevention and early detection efforts. Cancer control research contributes to this goal by identifying risk factors for cancer, developing and evaluating interventions to reduce these risks, and promoting screening programs that enable the early detection of cancer when it is most treatable.

Another objective of the National Cancer Plan is to improve the quality of cancer care and the quality of life for cancer survivors. Cancer control research addresses this goal by examining factors that influence the delivery of cancer care, such as access to care, patient-provider communication, and adherence to treatment guidelines. Additionally, it explores ways to support the physical, emotional, and social needs of cancer survivors through survivorship care planning, rehabilitation services, and psychosocial support programs.

Furthermore, the National Cancer Plan emphasizes the importance of reducing cancer health disparities and ensuring that all individuals have access to high-quality cancer prevention, detection, treatment, and survivorship

care. Cancer control research plays a critical role in achieving health equity by identifying disparities in cancer outcomes across different population groups and developing targeted interventions to address these disparities.

In summary, cancer control research is instrumental in advancing the goals outlined in the National Cancer Plan by generating evidence-based strategies to prevent cancer, detect it early, improve the quality of cancer care, support cancer survivors, and reduce cancer health disparities. By translating research findings into actionable policies and interventions, we can work towards a future where cancer incidence and mortality are significantly reduced and all individuals have access to equitable, high-quality cancer care.





## **HOW DCCPS IS ADVANCING THE GOALS OF THE PLAN**

To illustrate the unique contributions of National Cancer Institute (NCI)-supported cancer control research in advancing the goals of the National Cancer Plan, we provide selected examples of relevant scientific efforts from across the division.

While not comprehensive, these stories are intended to provide a snapshot of the various approaches being employed and the potential impact of these contributions towards achieving each of the eight goals.



## **PREVENT CANCER**

### **SUMMARY**

The NCI Cohort Consortium pools data and biospecimens necessary to conduct a range of cancer studies, including identifying novel risk factors associated with cancer etiology.



## **.CURRENT STATE**

There is a great need for more fundamental and clinical research to understand cancer biology in ways that lead to effective prevention or interception methods.

## **STRATEGY**

Undertake fundamental and translational research to increase understanding of cancer etiology and the molecular nature of precancer and its relationship to genetic, behavioral, and environmental influences and social determinants of health.

## **DCCPS CONTRIBUTION**

DCCPS formed the [NCI Cohort Consortium](#) to provide a coordinated, interdisciplinary approach to tackling important scientific questions related to cancer etiology, economies of scale, and opportunities to quicken the pace of research. Through its collaborative network, the Cohort Consortium increases the exchange of information and promotes collaborative research, particularly on cancer incidence and outcomes for rare cancers, cancer subtypes, and rare exposures. The consortium currently comprises 74 cancer etiology and cancer survivor cohorts located in North America, Europe, Asia, and Australia, representing approximately 7 million participants.

Over 80 collaborative projects have led to scientific discoveries about cancer risk factors and advances in epidemiology methodologies that can be applied in cancer prevention efforts. Through annual meetings and other activities, the Cohort Consortium keeps pace with cutting-edge initiatives in cancer etiology and data collection and utilization methods. Some recent examples include initiatives related to data harmonization, cohort data modernization, and unique uses of cohort data in fields including metabolomics, proteomics, and social and geospatial risk factors for cancer.



## **PREVENT CANCER**

### **SUMMARY**

Through key partnerships, DCCPS works to increase human papillomavirus (HPV) vaccination uptake and reduce incidence and mortality from cervical cancer.



## CURRENT STATE

Uptake of the HPV vaccine is steadily increasing in the United States, but many more cancers could be prevented if all eligible people received this safe and effective vaccine.

Regional variation in vaccine uptake is driven by challenges with access, vaccine hesitancy, and misunderstanding of the value of the vaccine for cancer prevention. Interventions are needed to address each challenge while building on local needs and strengths.

## STRATEGY

Develop, test, and evaluate interventions that incorporate individual-, system-, and societal-level approaches to promote cancer risk-reducing behaviors for people of all ages.

## DCCPS CONTRIBUTION

Every year, thousands of cervical, anal, penile, and other cancers are caused by HPV. Uptake of the HPV vaccine started slowly in the United States. A vaccine was approved by the US Food and Drug Administration in 2006 because of excellent safety profiles and strong evidence of efficacy. However, unlike other vaccines recommended for adolescents, and despite insurance coverage and a strong recommendation from the Centers for Disease Control and Prevention (CDC), by 2013 fewer than 40% of eligible girls and boys were fully vaccinated against these cancers ([pmc.ncbi.nlm.nih.gov/articles/PMC5779422](https://pubmed.ncbi.nlm.nih.gov/articles/PMC5779422)).

In 2014, the President's Cancer Panel Report called underuse of HPV vaccines a "serious but correctable threat to progress against cancer." Building on the strength of our cancer centers, NCI provided small supplemental sums to jump-start their focus on local uptake of HPV vaccine across the US. These early efforts were quickly joined by state and local health departments focused both on cancer and immunization. The CDC provided state-based expertise and worked with NCI and the American Cancer Society to develop a national effort to increase uptake of the HPV vaccine.

Dozens of partners joined a National HPV Vaccination Roundtable ([hpvroundtable.org](https://hpvroundtable.org)), focused on ensuring all perspectives were included in unified, clear, and accurate health communication messages. These unified messages were shared nationally when all of NCI's Designated Cancer Centers, for the first time, spoke with one voice to declare the importance of HPV vaccination. NCI collaborated with these partners and focused on research gaps, offering funding to identify how health care providers can work with their staff to increase HPV vaccine uptake and hosting meetings of cancer researchers working to build shared knowledge. Since these collaborative efforts began in 2014, HPV vaccination rates have increased year by year, with current data showing that 76.9% of adolescents received at least 1 dose of the vaccine in 2022, and 61.7% were up to date on the vaccination in 2022. NCI and many partners continue to develop, test, and maintain interventions to support the integration of HPV vaccination into clinical practice, reduce vaccine hesitancy, and address local and national immunization barriers and strengths to continue to accelerate progress toward full uptake of the HPV vaccine.



## **PREVENT CANCER**

### **SUMMARY**

OPTimize Cancer Survivorship (OPTICS) works to encourage healthy behaviors and optimal behavioral health for cancer survivors.





## CURRENT STATE

Scientists estimate that we could prevent more than half of all cancers by applying the knowledge that we have now. This knowledge includes altering behavior to reduce the risk from modifiable factors, such as tobacco use, alcohol use, obesity, a sedentary lifestyle, and sun exposure. More research in implementation science and targeted interventions could significantly reduce cancer incidence and death from cancer by identifying new ways to increase the uptake of proven prevention approaches.

## STRATEGY

Develop, test, and evaluate interventions that incorporate individual, system, and societal-level approaches to promote cancer risk-reducing behaviors for people of all ages.

## DCCPS CONTRIBUTION

The DCCPS Promoting Healthy Lifestyles to OPTimize Cancer Survivorship (OPTICS) Working Group is conducting foundational activities to better understand the implementation of behavioral health interventions and programs within NCI-Designated Cancer Centers and to identify the unmet needs—and the reasons for these unmet needs—within those settings.

These activities include systematic literature reviews

and audits of NCI-Designated Cancer Center web pages to identify programs, resources, and information concerning the following four health behavior/behavioral health (HB/BH) domains: smoking/tobacco cessation, physical activity and exercise, alcohol use, and mental health.

The goal is to survey a broad array of stakeholders to identify clinical, economic, and other outcomes of cancer survivorship care and the barriers to integrating HB/BH interventions within survivorship care. Understanding unmet needs for, and barriers to, these HB/BH services can help researchers and health care providers adopt and implement evidence-based interventions, strategies, and policies that promote healthy behaviors and optimal behavioral health in cancer survivors.





## **PREVENT CANCER**

**ALSO RELATED  
TO ELIMINATE  
INEQUITIES.**

### **SUMMARY**

New cohorts expand inclusion of diverse populations understudied in cancer research.



## CURRENT STATE

NCI has a long-standing history of supporting cancer epidemiology cohorts to study both cancer etiology and survivorship. Given the changing composition of the US population, coupled with the emergence of new potential risk factors, as well as new cancer treatments and regimens, it is critical to renew resources to address gaps and balance the cohort characteristics in the current NCI portfolio while optimizing the utility of established resources. Advancing our understanding of how cancer develops will inform intervention and prevention strategies. Likewise, research on determinants that affect recurrence and secondary cancers in survivors is valuable for cancer survivorship research.

## STRATEGY

- Undertake fundamental and translational research to increase the understanding of cancer etiology and the molecular nature of precancer and its relationship to genetic, behavioral, and environmental influences, and social determinants of health.
- Understand and address toxic and environmental exposures that contribute to cancer.
- Conduct research to identify ways to prevent additional cancers among cancer survivors.
- Include measures to overcome health disparities at all levels and in all aspects of cancer prevention research.

## DCCPS CONTRIBUTION

The DCCPS Epidemiology and Genomics Research Program (EGRP) currently supports over [45 cancer epidemiology cohorts](#). Collectively, these survivor and etiology cohorts have enrolled over 1 million participants. Moreover, these cohorts have rich epidemiological data and biospecimens that could be leveraged by researchers worldwide to investigate novel research questions.

More recently, EGRP has enhanced its efforts to increase the diversity of the cohorts in NCI's portfolio. Three funding opportunities with targeted goals and set-aside funds were recently published: (1) Utilizing Cohort Studies to Address Health Outcomes in Cancer Survivors, (2) New Cohorts for Environmental Exposures and Cancer Risk ([CEEER](#)), and (3) Cannabis and Cannabinoid Use in Adult Cancer Patients During Treatment: Assessing Benefits and Harms. Together, these initiatives resulted in the creation of 14 new cancer epidemiology cohorts (four cohorts addressing health outcomes in survivors, five cohorts focused on environmental exposures and cancer risk, and five survivor cohorts focused on cannabis use during treatment) that are currently enrolling targeted populations and establishing prospectively collected resources to be shared and leveraged by the extramural community.

In addition, new epidemiology cohorts can be proposed through the Building the Next Generation of Research Cohort initiative, aimed at establishing future cohorts that address critical scientific gaps related to novel or unique exposures that may influence cancer risk and outcomes.

This initiative also emphasizes improving the inclusion of diverse populations who are understudied (extending beyond race and ethnicity) in cancer research. Additionally, NCI seeks to leverage resources from existing cohorts for hypothesis-driven studies through the Research Opportunities in Established Cancer Epidemiology Cohort Studies initiative. Established cohorts—those that have achieved their initial planned recruitment goal—are well-characterized and offer rich exposure data, biospecimens, considerable follow-up time, and cancer information. Through the Research Opportunities in Established Cancer Epidemiology Cohort Studies initiative, researchers

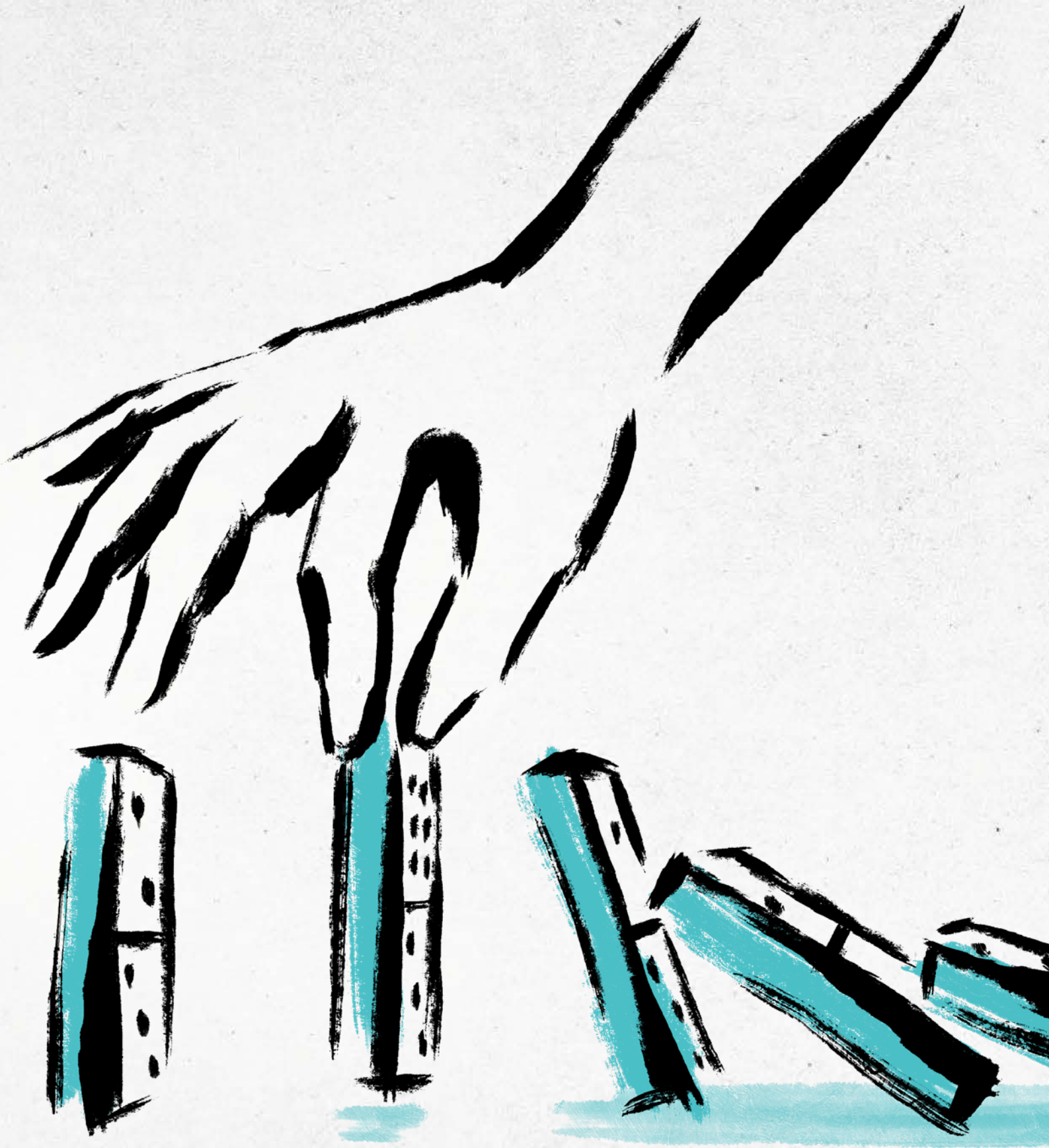
can propose studies that leverage existing cohort data and biospecimens to propose novel hypotheses and address gaps in scientific knowledge.

The DCCPS-led cohort initiatives are designed to complement and align with the goals of the National Cancer Plan and DCCPS. Through these efforts, NCI enables progress in addressing current and future scientific priorities important for cancer control and prevention. A diverse and comprehensive portfolio of NCI-supported cohorts would provide an invaluable resource and create a pipeline for downstream generation of critical information to advance cancer prevention and improve the

cancer survivorship experience across diverse populations for current and future generations. Ultimately, the vision is to enhance the utility and power of cancer epidemiology cohorts by creating and optimizing investments within the epidemiology cancer research community.









## **DETECT CANCERS EARLY**

**ALSO RELATED  
TO PREVENT  
CANCER.**

### **SUMMARY**

The NCI Inherited Cancer Syndrome Collaborative (ICSC) conducts studies of genetic risk assessment, communication, and testing uptake to increase early cancer detection and survivorship.





## **CURRENT STATE**

Inherited genetic factors increase the risk for some cancers, and people with inherited risk syndromes require knowledge of this increased risk and increased monitoring and risk-reducing strategies. By identifying new ways to increase the uptake of proven prevention approaches, especially in medically underserved populations, more research in implementation science and targeted interventions could significantly reduce cancer incidence and death from cancer.

## **STRATEGY**

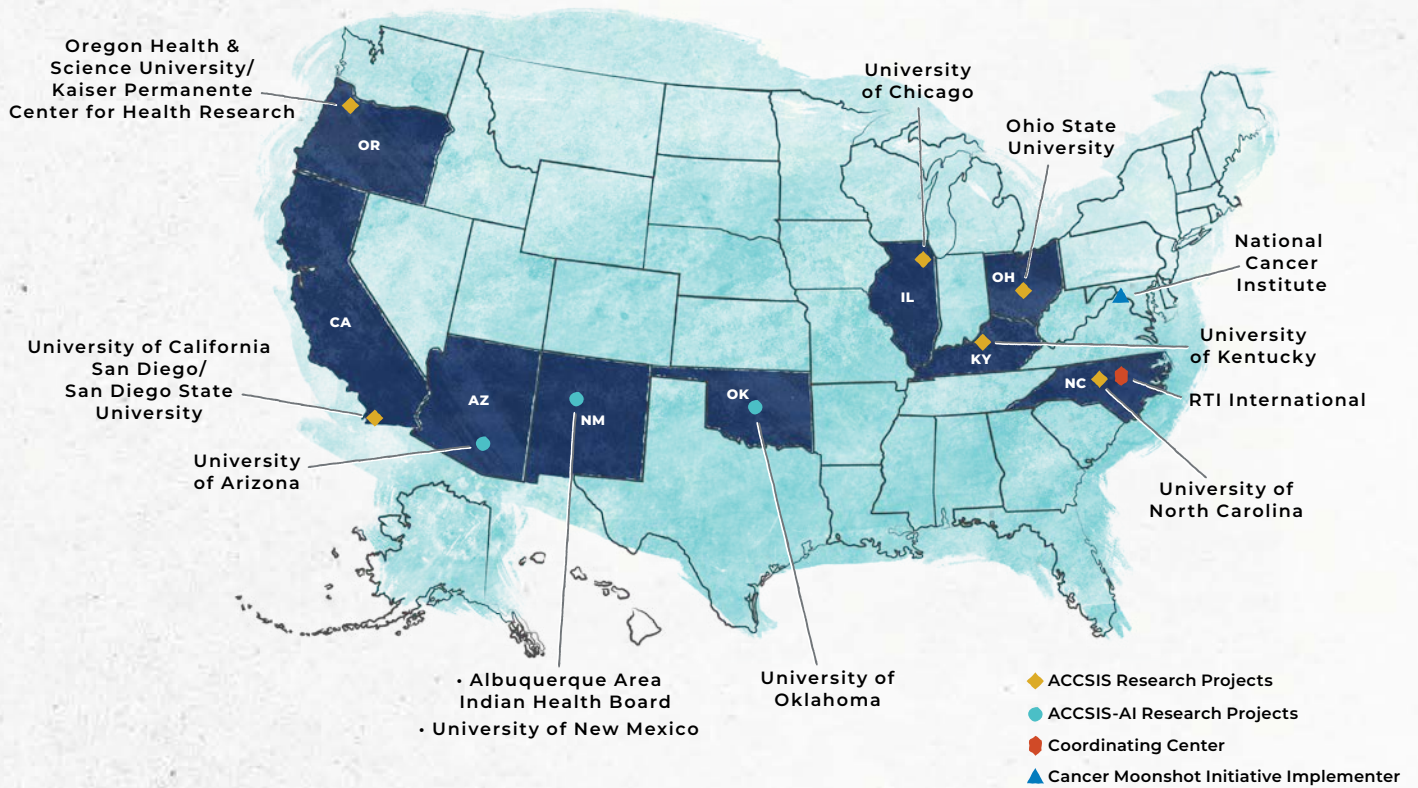
Partner with providers, researchers, and communities at increased risk for cancer to improve screening rates.

## **DCCPS CONTRIBUTION**

DCCPS supports the ICSC in response to the Cancer Moonshot initiative to increase the detection of inherited cancer syndromes and support cancer prevention and early detection through risk assessment, genetic testing and counseling, and personalized decision-making. Through this collaborative network of 38 studies, the ICSC is testing strategies to collect family history, integrate risk alerts into health records, augment genetic counseling and testing, engage at-risk family members, and support cancer prevention and early

detection at the clinic, health care system, and community levels.

These partnerships bring providers, genetic counselors, researchers, and communities together through annual investigator meetings, working groups, and public webinars and support cross-collaborations through sharing of measures, tools, and methods to overcome unexpected study barriers and promote rapid translation of study results. Identifying those with inherited cancer syndromes is key to early cancer detection, including reaching all communities with culturally appropriate information, genetic counseling and testing, cancer screening services, and follow-up care.



## DETECT CANCERS EARLY

### SUMMARY

Through the Accelerating Colorectal Cancer Screening and follow-up through Implementation Science (ACCSIS) initiative, NCI is working with local partners to improve colorectal cancer screening, follow-up, and referral for care among populations that have low colorectal cancer screening rates.



## CURRENT STATE

Many more Americans could benefit from screening for colorectal cancer. Safe, effective screening and tests following any abnormal results are widely available.

But many eligible people are not participating. We need to better understand why some people are not screened and how to be sure abnormalities are appropriately followed up. We also need to increase screening among those at highest risk in order to reduce health inequities.

## STRATEGY

Partner with providers, researchers, and communities at increased risk for cancer to improve rates of screening and follow-up.

## DCCPS CONTRIBUTION

Colorectal cancer (CRC) is the second leading cause of cancer deaths in the United States, even though good tests are available to screen healthy people and follow-up on any abnormalities. As of 2021, more than 70% of eligible adults were up to date with the recommended CRC screening, but this national average masks two issues. First, people who are not up to date are often from traditionally underserved and marginalized populations, such as those residing in rural areas, racial and ethnic minority populations, and low-income populations. These screening disparities contribute to unequal risks of death from CRC. Second, data showing use of screening do not account for the necessary follow-up tests, when screening finds an abnormality, nor for access to treatment. Screening can only benefit those who get the needed treatment.

Together, these challenges highlight the importance of improving CRC screening, follow-up, and referral to care among populations for whom screening rates are below national standards. Following a recommendation from the Cancer Moonshot Blue Ribbon Panel, NCI funded eight research projects to work on these challenges. This collaboration, called ACCSIS, has been working with communities who could benefit from more CRC screening. Each project focuses on local strengths and challenges, and they share with each other what is working. The ACCSIS teams collaborate with communities across the United States, including urban and rural and White, Black, Hispanic, and American Indian, who receive care at public and private health care clinics.

In each community, the researchers are borrowing from screening programs that have been successful elsewhere and adapting those programs for the local situations. The projects are nearing the end of their funding and are still working to assess how effective the interventions were at increasing CRC screening, follow-up, and treatment rates. But, along the way, all

of the projects have been sharing information on what approaches they are using, what challenges they have encountered (and solutions), what adaptations they are making, and what new ideas have come from their communities.

Publications and conference presentations describing these comparisons include [versions of patient navigation](#), ways to mail self-sampling CRC kits to people at home,

and thoughtful ways to adapt interventions that have worked in other settings. Other findings will share ways to use electronic health records (EHRs) to see what screening is needed, what tests have been done, and which patients need additional tests or treatment. These EHRs are common in the United States but vary widely; the ACCSIS projects will provide new insight into using them to improve CRC rates. The ACCSIS projects would not have been possible without collaboration

with dozens of community partners, including local clinic staff and doctors, frontier health systems that support rural clinics, academic partners, and urban and rural clinics using both public and private funds. The ACCSIS projects have worked continually to improve CRC screening rates and compare their experiences so that future CRC and other types of cancer screening and follow-up programs are easier to plan and more likely to succeed across the US.









## **DEVELOP EFFECTIVE TREATMENTS**

### **SUMMARY**

The NCI Patient-Reported Outcomes version of the Common Terminology Criteria for Adverse Events (PRO-CTCAE®) Measurement System was developed to evaluate symptomatic toxicities by self-reporting in adults, adolescents, and children participating in cancer clinical trials.



## CURRENT STATE

Cancer therapies often have substantial side effects, and these adverse effects can limit treatment tolerability.

In cancer clinical trials, the standard approach for identifying, grading, and reporting adverse events (AEs) is via clinician report.

Direct reporting of patients' experiences of symptomatic AEs using patient-reported outcomes (PROs) can complement AE reporting by clinicians, thereby improving the detection and ultimately the management of both short- and long-term treatment-related toxicities. It is also essential to address language-related barriers to cancer clinical trials participation and to ensure that all trial participants have equitable access to self-reporting symptomatic AEs using PROs.

## STRATEGY

Develop approaches that minimize the toxicities from cancer treatment and that detect and ameliorate the short- and long-term effects of treatment.

## DCCPS CONTRIBUTION

Safety and tolerability are fundamental to conclusions about the effectiveness of cancer therapies, including the comparative effectiveness of different treatments being studied. The clinician-reported Common Terminology Criteria for Adverse Events (CTCAE) is the standard AE reporting approach. The patient-reported PRO-CTCAE Measurement System, led by DCCPS, was designed to be used as a companion to the CTCAE to characterize the frequency, severity, interference, and presence/absence of symptomatic toxicities.

Examples of symptomatic toxicities included in the CTCAE that can be meaningfully reported by patients include pain, fatigue, nausea, diarrhea, shortness of breath, blurred vision, problems with memory and concentration, and rash. The PRO-CTCAE Item Library includes 124 items representing 78 symptomatic toxicities drawn from the CTCAE. The Pediatric PRO-CTCAE module

permits self-reporting by children and adolescents ages 7–17 (Ped-PRO-CTCAE) and includes a version for caregiver-proxy reporting when children are unable to self-report (Ped-PRO-CTCAE [Caregiver]). The PRO-CTCAE Measurement System is publicly available at the [PRO-CTCAE website](#), along with technical information to guide the design and interpretation of trials that include PRO-CTCAE, as well as tools and training materials to support implementation in cancer research.

A multidisciplinary team of scientific leaders in outcomes measurement and AE reporting in cancer clinical trials, drawn from across NCI, supports the adoption of PRO-CTCAE in a variety of cancer research contexts, including observational studies and cancer-directed treatment trials. This team also collaborates with the US Food and Drug Administration, the European Medicines Agency, and other regulatory agencies around the world to scale up the implementation of PRO-CTCAE in regulatory decision-making.

PRO-CTCAE is currently being used by hundreds of investigators in academic settings and in industry-



sponsored trials worldwide to characterize symptomatic adverse events in phase 1, 2, and 3 cancer treatment trials and to inform regulatory decision-making. The current evidence base supports descriptive reporting of symptomatic AEs using PRO-CTCAE to complement standard toxicity reporting by clinicians using the CTCAE.

With public-private funding from industry through over 20 cooperative research and development agreements, the PRO-CTCAE Measurement System has been validated in more than 60 languages. This robust set of translations supports the inclusion of culturally and linguistically diverse populations in cancer clinical trials and addresses language-related barriers to the equitable participation of underrepresented groups.

The PRO-CTCAE Measurement System is intended to enhance the precision and reproducibility of AE reporting in cancer clinical trials, complement and extend the information provided by clinician reporting using CTCAE, and represent the patient perspective of the experience of symptomatic AEs and treatment tolerability.









## **DEVELOP EFFECTIVE TREATMENTS**

### **SUMMARY**

The Exercise and Nutrition Interventions to Improve Cancer Treatment-Related Outcomes (ENICTO) initiative seeks to develop effective behavioral treatments to improve the completion of cancer therapy.





## CURRENT STATE

The concept of “precision oncology” captures the idea that each person’s cancer treatment and tolerance of cancer therapy is unique and that their treatment should reflect their individual characteristics, including response to behavioral interventions that may facilitate completion of cancer therapy.

## STRATEGY

Develop approaches that minimize toxicities from cancer treatment and that detect and ameliorate the short- and long-term effects of treatment, including secondary malignancies in cancer survivors.

## DCCPS CONTRIBUTION

Cancer treatment-related side effects are common and may impact future physical and emotional outcomes. They may also increase the risk of scaling back or discontinuing effective treatments such as chemotherapy. While leading organizations have formally recommended general physical activity for cancer survivors following treatment, and exercise interventions during cancer treatment are known to improve self-reported physical functioning, fatigue, anxiety, and depression, it is unclear whether these interventions improve important clinical outcomes, such as completion of prescribed chemotherapy. To address this knowledge gap, DCCPS established the [Exercise and Nutrition to Improve Cancer Treatment-Related Outcomes](#) (ENICTO) Consortium, comprising four clinical trials involving 10 research sites, a coordinating

center, and NCI. The clinical trials plan to enroll over 900 cancer survivors before or during cancer treatment to determine whether exercise interventions, with or without a nutrition component, impact chemotherapy completion, adverse events, patient-reported outcomes, and more.

While each trial independently addresses its specific aims the coordinating center and consortium structure provides an opportunity to pursue research questions collectively that would not be possible by individual research sites alone. Toward these ends, ENICTO has formed working groups to standardize data collection procedures, create a data repository (publicly available at ENICTO’s conclusion), develop cross-consortium research opportunities, and complete data analytics activities. The ENICTO Consortium has also launched the [Exercise Oncology/Oncology Nutrition](#) (EON) Network to engage researchers, trainees, and clinicians outside of ENICTO in the consortium’s work and facilitate networking and collaboration. The EON Network offers quarterly webinars and a newsletter with information on upcoming events, research summaries of interest to the exercise oncology and oncology nutrition fields, and relevant research funding opportunities.







## **ELIMINATE INEQUITIES**

### **SUMMARY**

The inconsistent collection of sexual orientation and gender identity (SOGI) data is a major impediment to addressing barriers to cancer prevention, early detection, treatment, and survivorship care in sexual and gender minority (SGM) populations.





## CURRENT STATE

SGM populations have not benefited equally from advances in cancer research and clinical care. Key barriers include the limited availability of culturally tailored prevention strategies, low uptake of screening modalities, and insufficient access to high-quality cancer care. Overcoming these barriers requires research that accurately identifies SGM populations and specific subgroups, such as transgender and intersex individuals.

## STRATEGY

Support deliberate and strategic efforts to increase the representation of all populations in cancer research and ensure that every person benefit equitably from cancer research and clinical advancements.

## DCCPS CONTRIBUTION

Recognizing an opportunity to improve cancer outcomes for SGM populations, often referred to as LGBTQ+ outside the research context, DCCPS formed an SGM Interest Group to address underrepresentation of these populations in research. The group immediately began addressing the major impediment to inclusiveness, which is the inconsistent collection of SOGI data. These inconsistencies arise both from a failure to ask individuals to provide this information and the use of different measures such that it is difficult to compare results across different studies. To address the failure to ask individuals, the group supplemented cancer center support grants to support a

range of efforts to implement or expand SOGI data collection in clinical settings where patients are offered the opportunity to participate in research. Simultaneously, the group, in collaboration with the National Institutes of Health (NIH) Sexual and Gender Minority Research Office, promoted the use of SOGI measures recommended to NIH by the National Academies of Sciences, Engineering, and Medicine. This included educating colleagues across NCI about the existence of these questions, promoting their use in national meetings of the research community and individual meetings with scientists, and developing language for use in notices of funding opportunities. Additional ongoing efforts include assembling the results of the supplemental activities into a compendium, expanding our understanding of SOGI measure use and plans among other cancer treatment sites, and continuing the empirical development of appropriate SOGI measures.







## **ELIMINATE INEQUITIES**

### **SUMMARY**

Rural cancer control efforts focus on research that can make the greatest impact on reducing the cancer disparities experienced by those living in rural America across the cancer continuum.





**CURRENT STATE**

Despite the progress made in reducing cancer incidence and mortality over the last few decades, not all people have benefited equally, and there is a need to understand how rural populations defined by demographic factors and social determinants of health continue to suffer disproportionately from cancer.

**10x**

Investments in rural cancer control research increased tenfold over the past 8 years.

**STRATEGY**

Support deliberate and strategic efforts to increase the representation of all populations in cancer research and ensure that every person benefits equitably from cancer research and clinical advancements.

**DCCPS CONTRIBUTION**

Over the last decade, DCCPS has invested in understanding, developing, testing, and implementing approaches to cancer prevention, control, and care delivery that can ameliorate rural cancer disparities. Partnering with numerous federal agencies, such as the Health Resources and Services Administration, the US Department of Agriculture, and CDC, has been invaluable for understanding the needs of rural communities to enhance research capacity and advance rural cancer control research and intervention implementation simultaneously. DCCPS has led funding opportunities, varying from supplements to NCI-Designated Cancer Centers focusing on rural partnerships to increase research capacity, full-scale research projects centering

on improving the reach and quality of cancer care in rural areas, and research projects addressing the modifiable social and behavioral cancer risk factors affecting rural populations. Awarded research projects span the cancer control continuum, with many of the awards being multilevel intervention studies with deep community partnerships. The awards address topics from prevention and screening to genetic counseling, patient navigation, supportive care, financial navigation, survivorship, and end-of-life care. Our agenda remains focused on offering unique funding opportunities that enable research to be implemented at the health care delivery level quickly to address rural clinical needs. Prioritizing research that examines the intersectionality of cancer risk and mortality with individual, cultural, community, and structural factors will provide insight on the unique context of rural individuals' lives, which can lead to appropriate multilevel intervention development and implementation to help reduce the burden of cancer experienced by rural populations.







## ELIMINATE INEQUITIES

### SUMMARY

The NCI Office of Cancer Survivorship, in collaboration with other DCCPS programs, NCI divisions, and NIH institutes, supports innovative health equity and health disparities research to enhance the quality and length of survival of all persons diagnosed with cancer.



## CURRENT STATE

Ending cancer as we know it for all people requires identifying and adopting ways to engage diverse populations as participants in research while eliminating barriers to quality preventive care, screening, and cancer treatment.

## STRATEGY

Support deliberate and strategic efforts to increase the representation of all populations in cancer research and ensure that every person benefits equitably from cancer research and clinical advancements.

## DCCPS CONTRIBUTION

All cancer survivors should have the opportunity to achieve their highest level of health possible, also known as [health equity](#). Unfortunately, there are obstacles to health that can affect where and how cancer survivors live, grow, learn, work, play, worship, access care, and age. These barriers can create differences in health care utilization, quality of care, and health outcomes, also known as [health disparities](#).

The NCI Office of Cancer Survivorship, in collaboration with other divisions, programs, and offices of NCI and NIH, supports innovative health equity and health

disparities research. In a [recent portfolio analysis](#) published in the *Journal of the National Cancer Institute*, DCCPS authors identified NIH-funded survivorship grants focused on populations experiencing health disparities, as well as opportunities for future research.

From the analysis, DCCPS authors have identified gaps in funded research on specific populations, cancer types, and focus areas of survivorship science. There is an opportunity for further survivorship research to include more cancer survivors from sexual and gender minority populations, American Indian and Alaska Native populations, and Native Hawaiian and other Pacific Islander populations. Additionally, there is a need to address the neighborhood-built environment and societal-level factors that drive unfair differences in health outcomes.







**DELIVER  
OPTIMAL  
CARE**

**SUMMARY**

The NCI-sponsored Cancer Intervention and Surveillance Modeling Network (CISNET) Consortium uses simulation modeling to inform US screening guidelines.



## CURRENT STATE

Research is needed to help translate advances in early cancer detection, treatment, and survivorship care into cancer control strategies that maximize population benefits while minimizing harms and burdens.

## STRATEGY

- Advance how cancer care is delivered, including through research identifying and addressing inequities to improve prevention, diagnosis, treatment, and survivorship.
- Increase collaboration between NCI and other government and private groups to capitalize on data, resources, and expertise that help enable cancer care delivery research.
- Work across government agencies and with private companies to promote widespread use of research-proven ways to lower cancer death rates and improve survivor well-being.

## DCCPS CONTRIBUTION

Formed in 2000 by the DCCPS Surveillance Research Program, CISNET is a consortium of NCI-sponsored investigators who use simulation modeling to improve our understanding of cancer control interventions in prevention, screening, and treatment and their effects on population trends in incidence and mortality. CISNET represents nine cancer sites, with over 200 members at more than 30 different institutions.

Their models are used to guide public health research, policy, advocacy, and priorities. They

extend clinical trial evidence on the benefits and harms of new cancer interventions to aid in the development of optimal cancer control strategies that maximize health benefits while minimizing the harms.

For example, work conducted by the CISNET Consortium has significantly influenced US Preventive Services Task Force screening recommendations for colorectal, breast, lung, and cervical cancers. By evaluating use of different screening tests, ages to start and stop screening, and how frequently to screen, modeling by CISNET investigators has contributed to major changes in task force guidelines, including the following:

- Changing mammography recommendations to every 2 years starting at age 40.
- Lowering the age to start colorectal cancer screening to 45.
- Lowering the age to start lung cancer screening to 50 and expanding the group for whom screening is recommended to those who have smoked a pack a day for more than 20 years.
- Changing cervical cancer screening by adding the recommendation of HPV testing every 5 years in women ages 30–65.



## **DELIVER OPTIMAL CARE**

### **SUMMARY**

NCI's Consortium for Cancer Implementation Science focuses on cancer control priorities, cross-collaboration, and innovative solutions in implementation science.





## **CURRENT STATE**

Ending cancer as we know it requires ongoing improvements across the health care system, and implementation science is needed to ensure that high-quality, evidence-based cancer care is available to and affordable for all who need it.

## **STRATEGY**

Advance and intensify research in cancer care delivery and implementation science, including research to inform improvements in cancer prevention, diagnosis, treatment, and survivorship and address inequities across this continuum.

## **DCCPS CONTRIBUTION**

DCCPS formed the Consortium for Cancer Implementation Science in 2019 as a new approach for supporting collaboration among researchers, practitioners, and policymakers to address key challenges and identify and develop new areas of investigation toward advancing the implementation science agenda in cancer control.

The consortium consists of action groups that develop public goods (widely available tools and resources) to address key challenges and advance the implementation science agenda in cancer. Public goods have included webinars, podcasts, publications, trainings, data platforms, and more. Action groups conduct strategic planning activities to collectively prioritize projects that are intended to advance a specific area within cancer implementation science and provide supports to make it easier for high-quality studies to be conducted. The consortium meets annually, with an average of 322 attendees. There are currently eight active action groups (and four inactive action groups) that have developed 36 public goods.



## **DELIVER OPTIMAL CARE**

### **SUMMARY**

The NCI Office of Cancer Survivorship works to advance research on primary care and cancer survivorship.



## CURRENT STATE

Research to improve health care delivery is extremely important; it is also challenging, as it requires cooperation among clinicians and health systems that currently lack the time and resources necessary to conduct research. Ending cancer as we know it requires further research and ongoing improvements across the health care system to ensure high-quality cancer care is available and affordable.

## STRATEGY

Advance and intensify research in cancer care delivery and implementation science, including research to inform improvements in cancer prevention, diagnosis, treatment, and survivorship and address inequities across this continuum.

## DCCPS CONTRIBUTION

The growing number of cancer survivors, coupled with their unique needs during and after cancer treatment, necessitates a comprehensive strategy for survivorship care. Primary care providers (PCPs) manage many components of survivorship care, including screening for subsequent malignancies, managing chronic conditions, and promoting healthy behaviors. Therefore, it is critical to support PCPs by identifying effective strategies to provide quality survivorship care.

The NCI Office of Cancer Survivorship and other parts of DCCPS have supported several initiatives to advance research on primary care and cancer survivorship, including a funding opportunity, workshop, and other events.

The funding opportunity, Addressing the Primary Care Needs of Cancer Survivors (U01 Clinical Trial Required), was published to support studies

that aim to develop and test inventions and strategies that promote high-quality care for cancer survivors during and/or after the treatment period. In February 2024, DCCPS sponsored [Enhancing Capacity for Primary Care Research in Cancer Survivorship: A Workshop for Action](#) to discuss opportunities for impact in this field. This event, led by the NCI Office of Cancer Survivorship, included more than 300 participants who focused on three areas: conducting system-level interventions, identifying survivors within primary care practices, and mentoring and team building for research success. In addition, past Office of Cancer Survivorship events have included [Optimizing Care Delivery for Cancer Survivors: Engaged, Pragmatic, Multi-team, and Multi-level; Innovations in Survivorship Models of Care](#); and [Cancer Survivorship Healthcare Delivery: Challenges and Opportunities Integrating Primary Care](#).

A key next step is the development of a community of practice focused on enhancing capacity in primary care and cancer survivorship.



## **ENGAGE EVERY PERSON**

### **SUMMARY**

The Participant Engagement and Cancer Genome Sequencing (PE-CGS) Network is engaging people in cancer genomics research to make new discoveries.



## CURRENT STATE

There is a need for reduced barriers and enhanced opportunities to participate in cancer research so that all populations may benefit from cancer research findings.

## STRATEGY

- Ensure that opportunities to participate in and benefit from research are equitably distributed.
- Develop and implement methods to return research results in meaningful ways to patients who participate in studies.

## DCCPS CONTRIBUTION

The PE-CGS Network was launched as part of the Cancer Moonshot to use participant engagement approaches to address knowledge gaps about the molecular changes in tumors for individuals with rare cancers, cancers with high disparities, and cancers in understudied populations. This type of data is needed for these individuals to

benefit from advances in cancer genomics.

Participants are the foundation of the PE-CGS Network. The funded research centers have partnered with patient advocates, community members, and study participants since the inception of this program. These centers serve as resources for their research participants, returning information such as individual genetic results and information about cancer to participants. Participant engagement also includes building trust with communities included in the research to improve the conduct of the study so that participants are more able and interested in participating and improving the quality and relevance of the research to the participants.

Through this research, the network is learning how to better partner and engage with participants and will use this information to develop best practices for engagement that will be shared with the broader research community. As highlighted at the 2024 American Association for Cancer Research Annual Meeting, four of the PE-CGS research



centers were awarded funding to further enhance community partnerships by supporting inclusion of additional community health educators, Spanish translation, development of genetics educational materials and training programs, and focus groups to learn more about community perspectives around genetics and genomics. The PE-CGS Network is learning more about unique perspectives of each community and the importance of adapting to community needs.

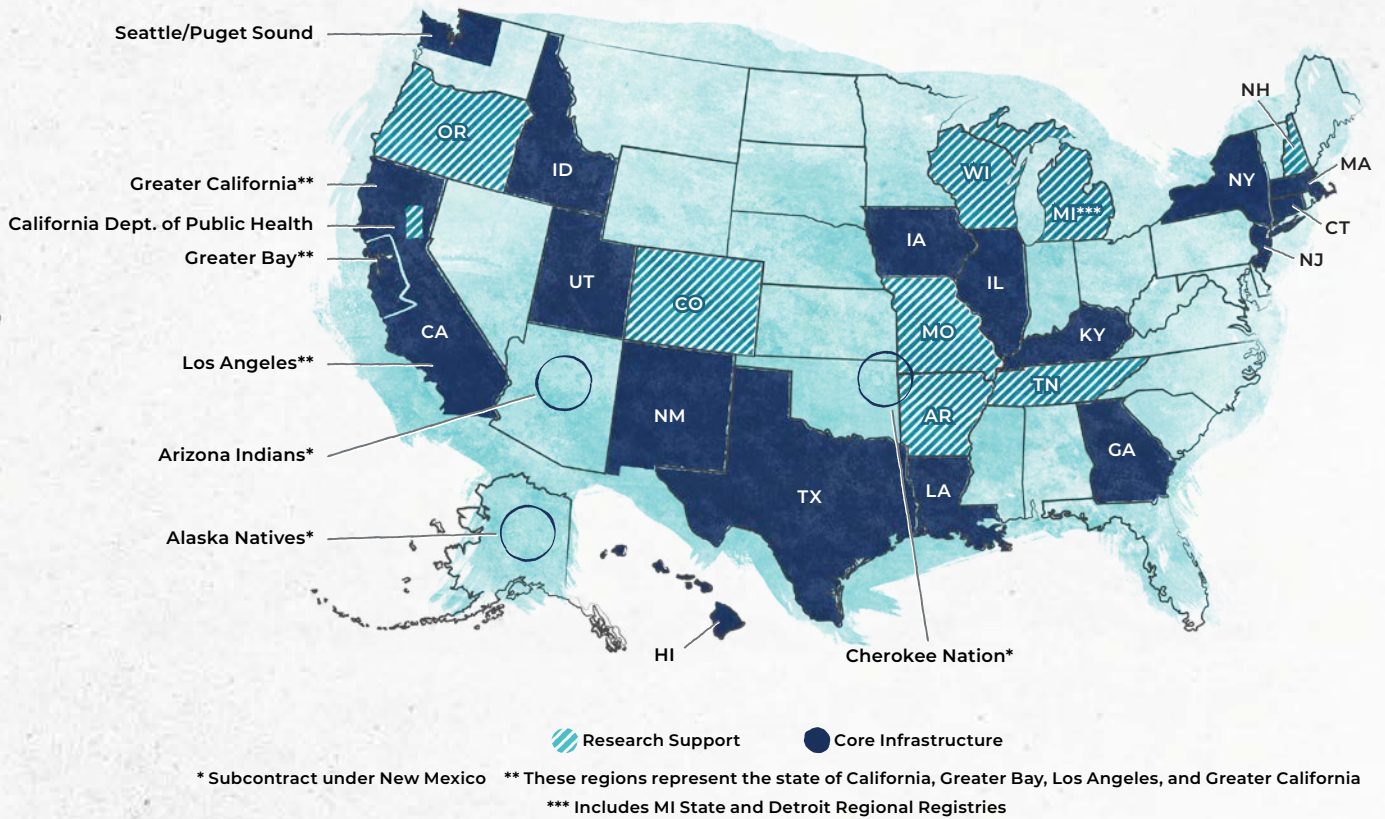
As of June 2024, over 1,500 individuals completed consent forms, 837 individuals provided tumor samples, and 458 tumors were sequenced by the PE-CGS Network. This already represents an increase in the diversity of participants, based on self-identified race and ethnicity, compared to existing genomic databases. Specifically, the PE-CGS data include a large number of tumors from people with rare cancers that are difficult to study using existing cohorts. In preliminary findings, the network observed novel genetic variants in these

cancers and is working to understand the potential role of these variants. Moreover, data from the network also suggest that incorporating results from multiple types of molecular assays helps with the interpretation of genetic findings. When these projects are completed, we will learn a lot about how best to engage participants in cancer genomics research, including returning results to participants. These projects will also address gaps in understanding of the molecular changes in tumors and serve as a resource for the research community.









## ENGAGE EVERY PERSON

ALSO RELATED TO ELIMINATE INEQUITIES.

### SUMMARY

NCI's Surveillance, Epidemiology, and End Results (SEER) Program captures information on all cancers diagnosed within participating states and regions, making every cancer count.



## CURRENT STATE

While clinical trials require voluntary participation, cancer registries collect data for a defined population as mandated for reportable diseases. Research data must include representation from all people, regardless of racial/ethnic, geographic, socioeconomic, and other subgroups.

Observing the risk of developing cancer, the treatments received, and outcomes, and understanding how these measures change over time, enable us to identify areas to intervene to improve outcomes and eliminate inequities among specific populations.

## STRATEGY

- Enable every patient to contribute their health data and biospecimens to research in a secure, privacy-protected manner that honors their wishes for the use of these resources to conduct cancer research.
- Ensure that opportunities to participate in and benefit from research are equitably distributed.
- Ensure that all areas of cancer research address population-specific diversity in biological and societal factors that impede successful cancer diagnosis, prevention, treatment, and survivorship.

## DCCPS CONTRIBUTION

The SEER registries have provided population-based cancer statistics for over 50 years. During that time, the SEER Program has grown to include 48% of the US population, and representation of specific populations has increased. In collaboration with national surveillance partners, including CDC, the American Cancer Society, and the North American Association of Central

Cancer Registries, SEER provides key information to the public, researchers, and policymakers on cancer incidence, survival, and prevalence in the United States. This information is critical for identifying and understanding emerging trends in risk and how risk and outcomes vary across specific populations. SEER data linked to treatment information provide the foundation for research investigating whether individuals receive the recommended treatment for their cancer diagnosis and how treatments vary by an individual's demographics and other factors. In addition to reporting cancer statistics by race and ethnicity, SEER data have been linked to various social determinants of health based on patients' residence at the time of diagnosis, such as measures of socioeconomic status, poverty, and rural versus urban county or census tract. This information gives further insight into observed disparities and informs research to develop and target interventions to areas that will have the greatest impact on outcomes for all cancer patients.



## **MAXIMIZE DATA UTILITY**

### **SUMMARY**

The Population Sciences Data Commons aims to serve as the centralized data repository and sharing platform for NCI-supported population studies.



## CURRENT STATE

Creating a national data ecosystem to equitably and responsibly collect and share cancer data will enable all cancer researchers to contribute, access, combine, and analyze diverse data related to cancer to accelerate progress against cancer.

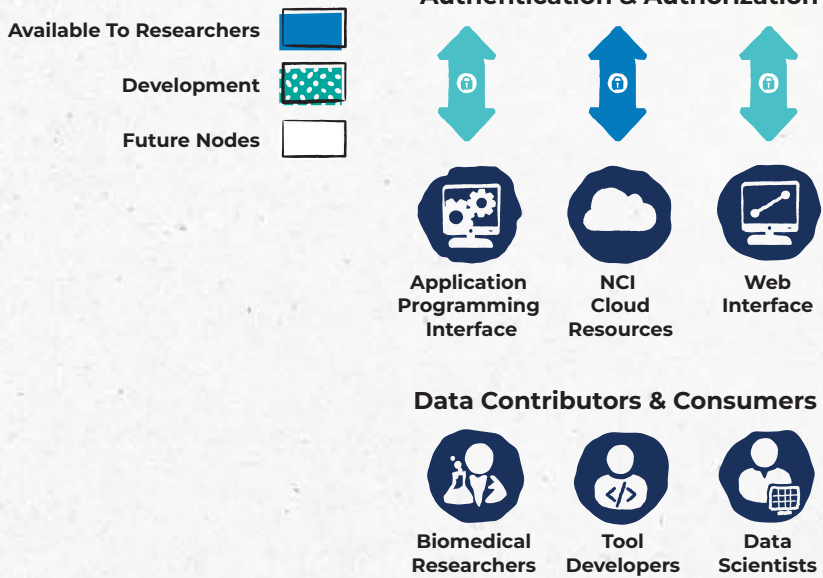
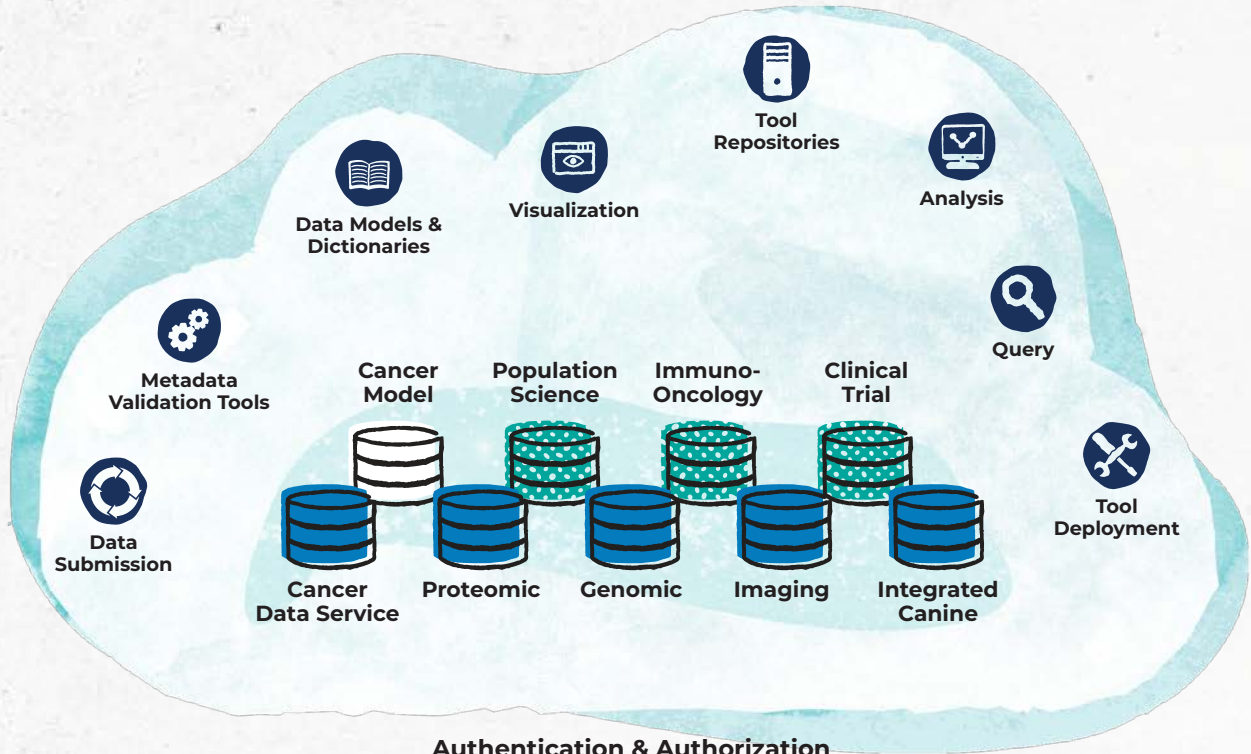
## STRATEGY

Build and maintain a unified cancer research data ecosystem that enables the routine collection, integration, harmonization, distribution, and reuse of data from a broad range of research studies in a secure, patient privacy-protected environment.

## DCCPS CONTRIBUTION

While there are multiple repositories and resources for diverse data types from studies focused on omics, imaging, and even clinical trials, there is a significant gap for hosting and broad sharing of data generated from population sciences research studies (for example, survey and questionnaire data). DCCPS is leading the way in bridging this gap by creating a new Population Sciences Data Commons, leveraging an open- and controlled-source, state-of-the-art, cloud-based platform that will be integrated into

the NCI Cancer Research Cloud Data ecosystem. In partnership with colleagues across the institute, DCCPS is helping to refine the data model based on experiences with other data sources, informing the development of a data submission framework, including relevant metadata fields, and working to integrate a visualization tool. The Population Sciences Data Commons is scheduled for public release in late 2025. It will conform to the common data governing principles of NCI's Cancer Research Data Commons and be interoperable with the other components of the ecosystem, such as the Cancer Genome Atlas, the Human Tumor Atlas Network, and the Childhood Cancer Data Initiative. In the future, this new Population Sciences Data Commons will be a tool for DCCPS-supported researchers as they develop and implement data sharing and management plans.











## **MAXIMIZE DATA UTILITY**

### **SUMMARY**

The SEER Program is an invaluable research resource due to its population representativeness, linkages with several data sets, privacy protections, and data products available to verified researchers.



## CURRENT STATE

The electronic health record (EHR) provides data for cancer research, but it is not sufficient on its own. EHR data must be maximized and considered in the context of more comprehensive resources (such as SEER) to improve research potential.

## STRATEGY

- Enable frictionless data sharing throughout all of cancer research and develop tools that optimize data use and analysis to achieve rapid progress.
- Support ongoing and new development of novel data visualization and analysis tools, and the infrastructure required to make them accessible to researchers.

## DCCPS CONTRIBUTION

Through linkages with data from key external partners, such as genomic testing companies and commercial pharmacies, the SEER Program continues to enhance the utility of SEER data for understanding cancer patients' diagnosis, treatment, and outcomes. Since its inception in 1973, more than 23,000 publications have used SEER data, and its use has expanded exponentially in the past 10 years with the addition of new clinically relevant data. These data represent important components of a cancer patient's trajectory over time and are essential in understanding differences in outcomes across patients with similar tumor profiles. With the expansion of the types and level of detail now available in the SEER data, new tools for data access and release were required. Therefore, the SEER Program continues to develop new tools for cohort discovery and analysis, making new data products representing important components of a cancer patient's care freely available to researchers. One example of a linkage that provides important information about patients' treatment and prognosis is a data set that includes

cases diagnosed in California and Georgia linked to genetic testing results. Although the SEER data are de-identified, the expanding detail and longitudinal capture of information has necessitated new processes for accessing the data. Therefore, the SEER Program has developed a robust authentication and authorization process with varying requirements for researchers to [obtain access](#) to specific data sets, depending on the sensitivity of the data.

In addition to the many data products through which researchers can access the enhanced SEER data, the program has developed other innovative tools that are useful to researchers, patients, and providers. Examples include the [Explorer tools](#) and the National Childhood Cancer Registry ([NCCR](#)) Data Platform. Both resources represent new and efficient ways by which SEER and NCCR data can be accessed. The program continuously generates new processes and data access methods to meet the evolving SEER Program and to support broad access by researchers to these data.



## **OPTIMIZE THE WORKFORCE**

### **SUMMARY**

DCCPS supports researchers along their career paths through various training opportunities.



## CURRENT STATE

Early- and mid-career cancer researchers often face significant challenges as they embark upon, build, and sustain their careers.

# 500

Over the years, DCCPS has trained more than 500 fellows at NCI, some for several years.

# \$22

MILLION

NCI allocated over \$22 million toward the development of these fellows.

# 45%

Maintaining a strong focus on diversity, 45% of the most recent class considered themselves non-White.

## STRATEGY

Expand and extend the capacity for cancer research by engaging a diverse pool of talented learners in cancer research and supporting their pursuit of a career in cancer research.

## DCCPS CONTRIBUTION

Building and sustaining a strong and vibrant cancer control and prevention research program is dependent upon the contributions of both new and seasoned investigators and the sustained commitment from NCI and its community. The [DCCPS New Grantee Workshop](#) provides interactive sessions and informal activities, where new and early-stage R01 investigators learn strategies to successfully manage their grants and gain opportunities to network with colleagues and NCI scientific staff. The investigators also learn about NCI's tools, trends, and resources to support and build their research career. Over the past 8 years, more than 230 new and early-stage R01 investigators have participated in these

New Grantee Workshops. DCCPS also provides numerous ongoing webinars and trainings to target new, mid-level, and experienced investigators in specific research areas. Of the numerous trainings provided by the division across the cancer control research spectrum, a few examples include the NCI [Office of Cancer Survivorship New Investigators Series](#); [Training Institute for Dissemination and Implementation Research in Cancer](#); [NCI/AcademyHealth Healthcare Delivery Research Visiting Scholars Program](#); [SEER Program Cancer Registrar Training](#); and educational videos, webinars, and conferences to assist researchers in the use of the [Health Information National Trends Survey](#) data sets. Building a career in cancer control and population sciences is both challenging and rewarding, and DCCPS is working to ensure that our investigator community has the tools and knowledge to succeed in a lifelong research career.



## **OPTIMIZE THE WORKFORCE**

### **SUMMARY**

A new training opportunity expands the cancer control and population sciences workforce in the area of implementation science.



## CURRENT STATE

The cancer workforce should reflect the people it serves and can require us to address workforce barriers and challenges for training and mentorship in areas of science where groups have historically been underrepresented.

88%

MEN

+

12%

WOMEN

---

100%

UNDERREPRESENTED  
SCHOLARS

## STRATEGY

- Engage a diverse pool of talented trainees and early-career scientists and support their pursuit of careers in cancer research.
- Eliminate barriers and facilitate entry for individuals historically excluded from or underrepresented in the cancer workforce.
- Develop initiatives to address gaps and increase the number of, and training for, cancer researchers from underrepresented and underserved backgrounds.

## DCCPS CONTRIBUTION

DCCPS supported the development and piloting of a new Training on Advancing Health Equity through Implementation Science in partnership with the [Implementation Science Centers in Cancer Control](#).

The training addresses a need for growth in the workforce among underrepresented individuals in implementation

science and cancer control. This new training is unlike others because it provides skill building at the intersection of implementation science and health equity and incorporates interactive, personalized training opportunities and mentoring.

In February 2024, 17 diverse scholars attended and engaged in this new evidence-informed program. Key competencies identified in the training include engaging community and centering on community-based needs, equity-relevant methods, cultural humility, and the integration of equity into research grants and evidence-informed mentoring. This pilot training seeks to contribute to optimizing the diversity of our cancer control workforce by promoting underrepresented scholars who want to learn and apply implementation science to promote health equity and access to evidence-based interventions in cancer control.



## **OPTIMIZE THE WORKFORCE**

### **SUMMARY**

The transdisciplinary focus of the K01 Mentored Research Scientist Development Award has been expanded to now include cancer control and prevention research.



## CURRENT STATE

Our most important resource is our cancer care and research workforce. It is critical to address the uncertainty of a successful future in cancer research with increased funding opportunities and to generate new strategies to support career paths, particularly for cancer researchers from underrepresented and underserved backgrounds.

## STRATEGY

- Develop initiatives to address gaps and increase the number of and training for cancer researchers from underrepresented and underserved backgrounds.
- Generate new strategies to support career paths in life sciences and non-research science fields, such as in education, health policy, and health journalism.

## DCCPS CONTRIBUTION

These talented researchers bring diverse, fresh perspectives, and innovative ideas that fuel scientific advancement. However, many early-career researchers and postdoctoral researchers would benefit from more experience and advanced training to compete successfully for research grant funding.

In response to this need, DCCPS and the Division of Cancer Prevention partnered with the Center for Cancer Training to now offer K01 funding opportunities specific to cancer control and population sciences and cancer prevention. The K01, known as the [Mentored Research Scientist Development Award](#), is a training mechanism that provides 3 to 5 years of support, pilot funding, and protected mentored time for postdoctoral scholars and non-tenured junior faculty (e.g., assistant professor or the equivalent). By expanding the transdisciplinary focus of the K01 award to now include cancer control and population sciences and cancer prevention, NCI is enhancing opportunities for our workforce as they successfully transition to research independence.

# OPPORTUNITIES FOR RESEARCHERS

In addition to encouraging scientific ideas for researchers through investigator-initiated applications and omnibus solicitations, DCCPS develops and participates in NIH funding opportunities aimed at stimulating new directions in specific research to examine, discover, and test methodologies to improve public health. The following are examples of recent funding opportunity announcements to encourage research projects in emerging or priority areas and to support the next generation of cancer researchers.

## FROM DCCPS

- Exploratory Grants in Cancer Control
- Modular R01s in Cancer Control and Population Sciences
- Cancer Epidemiology Cohorts: Building the Next Generation of Research Cohorts
- Research Opportunities in Established Cancer Epidemiology Cohort Studies
- Impacts of Climate Change Across the Cancer Control Continuum (R01 Clinical Trial Optional)
- Understanding Expectancies in Cancer Symptom Management (R01 Clinical Trial Required)
- Population Approaches to Reducing Alcohol-related Cancer Risk (R01 Clinical Trial Optional)
- Improving Care and Outcomes for Cancer Survivors from Sexual and Gender Minority (SGM) Populations (R01 Clinical Trial Optional)
- Pragmatic Trials Across the Cancer Control Continuum (UG3/UH3 Clinical Trial Required)
- Dissemination and Implementation Research in Health (Domestic and International Funding Opportunity)
- Notice of Intent to Publish a Funding Opportunity Announcement for Tobacco, Alcohol, and Cannabis Policy Research for Health Equity (R01 and R21 Clinical Trial Optional)
- Limited Competition: Specialized Centers of Excellence on Environmental Health Disparities Research (P50 Clinical Trial Optional)
- Notice of Intent to Publish a Funding Opportunity Announcement for Scaling-up and Maintaining Evidence-based Interventions to Maximize Impact on Cancer (SUMMIT) Lung Cancer Screening (UG3/UH3 Clinical Trial Required)
- Notice of Special Interest (NOSI): Telehealth Research in Cancer Care
- Secondary Analysis and Integration of Existing Data to Elucidate Cancer Risk and Related Outcomes (R01 and R21, Clinical Trial Not Allowed)



## FROM NCI

- [Early Investigator Advancement Program \(EIAP\)](#)

- [Funding for Cancer Training](#)

- [Research Specialist Award \(R50\)](#)

- National Cancer Institute Program Project Applications for the Years 2023, 2024, and 2025 (P01 Clinical Trial Optional)

- [Small Business Innovation Research \(SBIR\) and Small Business Technology Transfer \(STTR\) Funding](#)

- Investigator-initiated
- Investor Initiatives
- Technical and Business Assistance Programs
- Contract Opportunities (NCI-defined Topics)

- [Outstanding Investigator Award \(R35\)](#)

- [Innovative Molecular Analysis Technologies \(IMAT\) Program](#)

- Technology Development for Cancer Control and Population Sciences Research
- Technologies and Informatics Tools for Cancer Metabolomics

- [Informatics Technology for Cancer Research \(ITCR\) Program](#)

# INVESTMENTS IN CANCER CONTROL RESEARCH

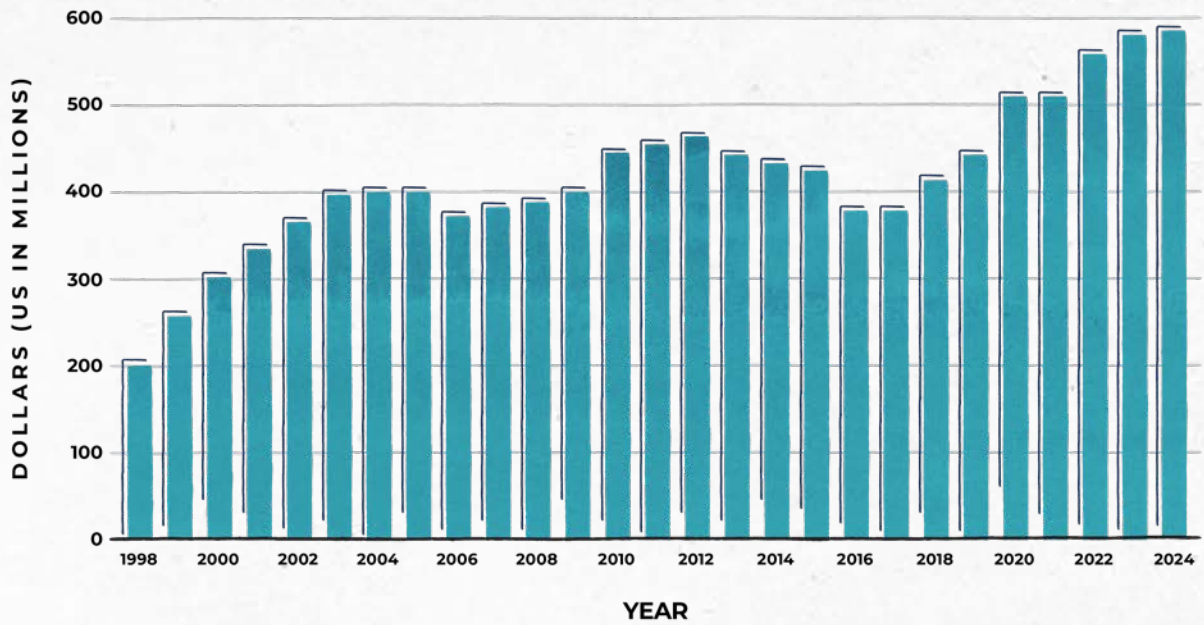
For more than 25 years, researchers funded by DCCPS have been advancing the science to improve public health. Major programmatic areas of research include epidemiology and genomics, behavioral health, health care delivery, surveillance, health equity, implementation science, and cancer survivorship.

In fiscal year 2024, DCCPS funded approximately 925 grants valued at nearly \$583 million, supporting work in the United States and internationally aimed to reduce risk, incidence, and deaths from cancer and to enhance the quality of life for cancer survivors. In addition, the division funded \$87 million in contracts, which include the SEER Program. While the majority of DCCPS funding is for investigator-initiated research project grants, the division also uses other strategies to support and stimulate research, such as multicomponent specialized research centers, cancer epidemiology cohorts, and supplements to NCI-Designated Cancer Center support grants.

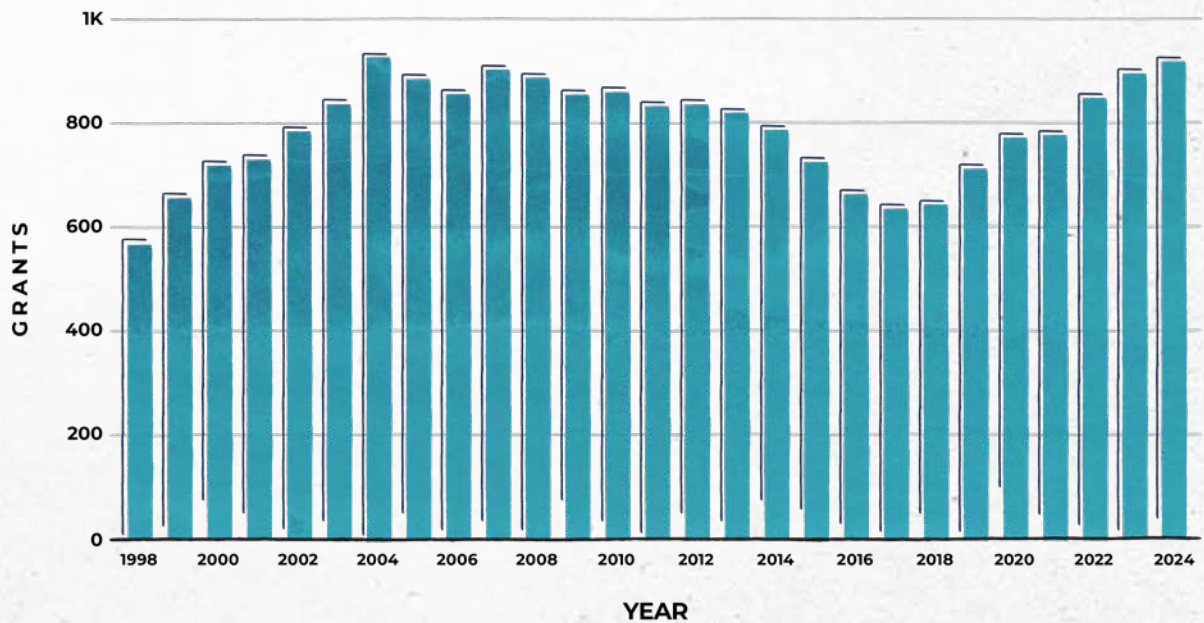
Learn more about the DCCPS grant portfolio and funding trends at [maps.cancer.gov/overview](https://maps.cancer.gov/overview).



## TOTAL DOLLARS (IN MILLIONS)



## TOTAL NUMBER OF GRANTS





2024 DCCPS Overview and Highlights

 NATIONAL CANCER INSTITUTE

NIH Publication No. 24-7796