



## PREVENTION RESEARCH CENTERS TRANSFORMING CANCER CARE: SCREENING, PREVENTION, AND SURVIVORSHIP

Cancer is the second leading cause of death in the United States, accounting for 1 in 5 deaths. It affects millions of Americans, not only those who have the disease but also their families and communities.<sup>1</sup> CDC Prevention Research Centers (PRCs) collaborate with local communities to develop, test, and implement evidence-based solutions tailored to the specific health needs of their communities. By working closely with community partners, PRCs ensure their research is relevant and impactful, and they disseminate their findings widely to benefit other communities as well.

PRCs can apply to join **Thematic Research Networks**, a type of Special Interest Project (SIP) that brings together multiple PRCs to collaborate on a specific health issue. The **Cancer Prevention and Control Research Network** (CPCRN) includes a national group of academic, public health, and community partners working together to lessen the impact of cancer, especially among groups affected by cancer disparities. Established in October 2002, CPCRN works to turn research into real-world programs that prevent and control cancer in the communities served by member PRCs. By connecting PRCs across wide areas and fostering strong relationships among researchers, CPCRN achieves more than any single center could alone.

### MISSION OF CPCRN

CPCRN's goal is to make sure proven strategies for preventing and controlling cancer are used more widely in communities, especially for people who might not have easy access to these resources. The network also aims to learn more about how these strategies work and train more people to help spread the word and put these plans into action.



## What are CDC Prevention Research Centers?

PRCs are academic research centers that study how people and their communities can reduce the risks for chronic illnesses. PRCs collaborate with local communities to make a positive impact, especially in populations affected by health disparities. Together, they identify key public health issues, develop and test programs, policies, and practices to prevent chronic diseases, and create tools and resources that can be shared widely.

## Statistics about cancer



**1 in every 5**  
deaths is due to cancer.<sup>1</sup>



In 2021, over **17 million**  
people in the U.S. were living  
with cancer.<sup>2</sup>



In 2019, out-of-pocket costs for U.S.  
cancer patients were estimated at  
**\$21.09 billion**,  
including direct patient care costs,  
indirect costs, and patient time.<sup>3</sup>



CPCRN works on various projects aimed at improving cancer screening, prevention, and survivorship. For example:

- **Increasing colorectal cancer screening:** CPCRN found that reminding patients, educating doctors, and fixing health care system issues helped more people get screened, especially those with limited access to healthcare.<sup>4</sup>
- **Promoting human papillomavirus (HPV) vaccination:** CPCRN worked with rural communities to spread information and make it easier for people to get the HPV vaccine, increasing vaccination rates and understanding of cancer prevention.<sup>5</sup>

In the 2019-2024 funding cycle, CPCRN consists of [eight funded PRCs](#), one funded [coordinating center](#), and over 150 members. The PRCs are:

- University of North Carolina at Chapel Hill (UNC at Chapel Hill) Coordinating Center
- Colorado School of Public Health
- Emory University
- New York University and City University of New York
- University of Arizona
- University of Iowa
- University of South Carolina
- University of Washington

As the coordinating center, UNC at Chapel Hill helps develop and evaluate research activities and fosters collaboration and partnership among CPCRN members. Highlighted in this issue brief are examples from projects conducted by the PRCs in CPCRN, showcasing efforts in cancer screening, prevention, and survivorship.



## REDUCING CANCER RISK BY PREVENTING TOBACCO USE

Smoking is linked to 12 types of cancer and cigarette smoking or secondhand smoke exposure cause nearly 9 in 10 lung cancer deaths.<sup>6</sup> Adolescents and young adults often use multiple forms of tobacco and other substances, but public health efforts typically focus on one substance at a time.

As a member of CPCRN, the [University of Iowa PRC for Rural Health](#) (UI PRC-RH) is conducting the [Informing, Adapting, and Testing Evidence-Based Ecological Interventions to Reduce E-cigarette Use Among Rural Youth](#) study to understand patterns of e-cigarettes use among adolescents and young adults in rural areas. Rural areas often have fewer resources and personnel dedicated to tobacco control and implement fewer anti-tobacco efforts. Despite statewide efforts to control tobacco use, more than 16% of high schoolers in Iowa still use tobacco products, including e-cigarettes.<sup>7</sup> Evidence also indicates that

adolescents and young adults rarely use one substance alone.<sup>8</sup> In fact, 93% of high school students, and 95% of college students who use e-cigarettes, also use other substances like alcohol or cannabis.<sup>9</sup>

“The more studies we see, the clearer it becomes that for young people, using e-cigarettes can actually undo the progress we’ve made in reducing tobacco use.”

– Principal Investigator, Rima Afifi, PhD, MPH

To tackle this challenge, the research team decided to take a broader approach to understand the overall landscape of substance use among rural young adults and teens. They aimed to develop a prevention intervention that addresses multiple substances, not just one, with several sub-projects:

- **E-cigarette intervention info:** Created an infographic for mentors and caregivers with updated information about e-cigarette interventions for youth.
- **Youth E-cigarette use review:** This review (in-progress) combines qualitative studies to understand what influences youth e-cigarettes use.
- **Substance use prevention review:** A [systematic review](#) of existing study evaluations on how to prevent substance use in youth.
- **Protective factors study:** This study asked young people (ages 13-18) what keeps them from wanting to vape. Recruitment challenges led to a presentation on engaging youth in e-cigarette research, with a paper coming soon.
- **Expert survey on interventions:** This ongoing project asks experts to share effective strategies for reducing substance use in young adults (ages 18-24). The experts focused on preventing the use of tobacco, alcohol, and marijuana, recognizing that young adults who use one substance often use others.

By understanding why rural young adults and teens use substances like e-cigarettes, and developing comprehensive intervention strategies, the team hopes to reduce the cancer risk among this group. The 2024-2029 PRC-RH core research project will continue tobacco cessation efforts with LGBTQIA+ young adults in Iowa's metropolitan communities.

## EVALUATING THE EFFECTIVENESS OF A CANCER SCREENING SURVEY

In 2024, there will be more than 2 million new cases of cancer in the United States.<sup>10</sup> Screening can detect cancer before symptoms occur and at earlier stages when the disease is more treatable. However, cancer screening is underused in the U.S.

Many people do not get regular screenings due to factors such as:

- Lack of income and education
- Cost of the screening
- Health insurance coverage
- Travel distance to a screening site
- Availability of adequate health care facilities<sup>11</sup>

[The University of Washington Health Promotion Research Center \(UW HPRC\)](#), through a SIP, studied how well the National Health Interview Survey (NHIS) questions measure rates of breast, cervical, colorectal, and lung cancer screening. The NHIS is a large survey that covers many health topics, including cancer screening. Accurate survey questions help monitor progress, understand who gets screened, and plan ways to encourage more people to get screened.

Previous reports have shown that people in minority communities tend to overreport their cancer screenings more than others. This overreporting can make it seem like there isn't a problem with screening in these communities, even though there is. This [study](#) aimed to highlight these differences and improve survey questions.

The UW HPRC team tested survey questions with 1,770 people and interviewed them to understand their thought processes. Researchers compared people's answers with their electronic health records to check for accuracy. They found that self-reported dates of screening often "telescope," bringing distant events closer to the present.





“Telescoping is one reason for the overreporting bias of screening. People often remember screenings as happening more recently than they did, which leads to overreporting,”

– Dr. Larry Kessler, Principal Investigator of the study

In previous studies, this has been more common in minority communities, which can hide the true need for more screenings in these groups. The HPRC team is looking into this issue as they continue to review study data.

The study's findings have helped public health experts understand how people may misreport their screening histories. The results can be used to improve cancer screening questions, allowing resources to be more appropriately targeted to groups that need them most and enhancing overall cancer prevention efforts.

## SCP IMPACT: BUILDING BRIDGES TO BETTER SURVIVORSHIP

When someone finishes cancer treatment and is declared cancer-free, they should get a plan for their follow-up care. This plan, called a survivorship care plan (SCP), has information about their cancer treatment and what they need to do next for their health. The SCP helps patients stay involved in their care, keep track of their medical details, and improves how doctors and other health care providers work together.



With the support of SIP funding, Emory Prevention Research Center (EPRC), in collaboration with Emory's Department of Pediatric and Children's Healthcare of Atlanta, studied the impact of SCPs on the survival of pediatric cancer survivors. The [Effect of Survivorship Care Plans on Cancer Mortality](#) study looked at how getting an SCP affects survival rates, what causes cancer-related deaths, if patients follow screening guidelines, and how often they go to the doctor. EPRC looked at how receiving an SCP during a pediatric cancer survivor clinic visit affected 10-year survival rates for 3,394 cancer survivors treated between 2002 and 2016.

An SCP summarizes the patient's cancer diagnosis and treatment and provides a personalized health plan with recommended checkups and care based on [Children's Oncology Group survivorship guidelines](#). The study found that 70% of patients received SCPs that followed these guidelines.<sup>12</sup> Notably, having an SCP was linked to better 10-year survival rates.

“Our data show that receiving an SCP significantly improves survival. This underscores the importance of making SCPs a standard part of cancer care.”

– Study investigators Ann Mertens, PhD, Sharon Castellino, MD, MSC, and Xu Ji, PhD

The study also found that good survivorship care plans could reduce the number of people who die from cancer. The results indicate that using SCPs more often could help more people survive cancer.

The research team will continue to follow this group of patients to examine long-term health outcomes and further understand how effective SCPs are. They aim to ensure that cancer survivor programs have the resources needed to develop and implement SCPs, advocating for SCPs to be a standard measure of quality care in cancer treatment.

## DECREASING THE CANCER BURDEN

By leveraging the strengths of research teams, community members, and partners, PRCs in CPRN, either as part of the network or through related projects, have made significant strides in translating research into practice, sharing knowledge and informing each other. These efforts aim to lower the number of new cancer cases and deaths and improve outcomes for those affected by cancer.



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