

Progress Report: Executive Summary *9/30/04 to 9/29/20*

A summary of the activities, productivity, and impact of CPCRN over the past year and across all years dating back to 2004.



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Executive Summary

The Centers for Disease Control and Prevention (CDC)-funded Cancer Prevention and Control Research Network (CPCRN) has been in operation since 2002 with additional support from the National Cancer Institute (NCI). From 2002 through the current funding cycle, the Network has included Collaborating Centers at a total of 18 CPCRN Collaborating Centers, housed at academic institutions across the country. Recently entering into the fifth 5-year funding cycle, “CPCRN5” began in 2019, and will span until 2024, comprised of eight Collaborating Centers, two of which are new brand new to the Network (Table 0.1), as well as affiliate members at 15 additional institutions, including 6 former Collaborating Centers. This report demonstrates the impact of the work accomplished by CPCRN members during Year 1 of CPCRN5 and summarizes the research, dissemination, and implementation activities accomplished by CPCRN Collaborating Centers, cross-center Workgroups, and the Coordinating Center over two time periods: in the last year (September 2019-2020); and across all years since 2004 (September 2004-2020), when the Network’s logic model and progress reporting system were introduced.

It is particularly notable that the first year of the CPCRN5 funding cycle saw the onset of the COVID-19 pandemic. Readers will note throughout this executive summary and this report that there were many research, dissemination, and collaborative partnership efforts made by members of CPCRN’s Network Centers and Workgroups to address issues related to the pandemic and its impact on cancer risk factors, cancer care, and cancer survivorship.

Executive Summary Table 1: Funded CPCRN Centers

CPCRN1: 2002-2004	CPCRN2: 2004-2009	CPCRN 3: 2009-2014	CPCRN4: 2014-2019	CPCRN5: 2019-2024
University of Washington	University of Washington	University of Washington	University of Washington	University of Washington
University of South Carolina	Morehouse School of Medicine	University of South Carolina	University of South Carolina	University of South Carolina
University of Kentucky – West Virginia University	Emory University	Emory University	University of Kentucky	Emory University
Harvard University	Harvard University	Harvard University	University of Pennsylvania	New York University - City University of New York
University of Texas, Houston	University of Texas, Houston	University of Texas, Houston	Case Western Reserve University	University of Arizona
	University of North Carolina	University of North Carolina	University of North Carolina	University of North Carolina
	(Coordinating Center & Collaborating Center)	(Coordinating Center & Collaborating Center)	(Coordinating Center & Collaborating Center)	(Coordinating Center & Collaborating Center)
	St. Louis University	Colorado School of Public Health	Oregon Health & Science University	Colorado School of Public Health
	University of California, Los Angeles	University of California, Los Angeles	University of Iowa	University of Iowa
		Washington University		

By the Numbers

CPCRN has had significant impact on the scientific literature in cancer prevention and control. **During the first year of the CPCRN5 funding cycle, CPCRN members published 150 CPCRN-related articles, 8 of which reflected multicenter collaborations.** Since 2004, there have been a total of 1,941 CPCRN-related publications in peer-reviewed journals, 166 of which reflected multicenter collaborations. **CPCRN members delivered 110 CPCRN-related presentations in the first year of the funding cycle, 10 of which were multicenter presentations.** Since 2004, CPCRN activity has led to 2,060 presentations delivered to outside organizations (177 of which were multicenter collaborations). Hundreds of these presentations have been delivered in collaboration with research partner organizations such as Federally Qualified Health Centers (FQHCs, 99 since 2004) and other health care providers (225 since 2004). In 2016, the CPCRN Coordinating Center began tracking trainings and educational workshops separately from other types of presentations. Since 2016, CPCRN Collaborating Centers reported **70 training and educational programs conducted (16 in the past year)**, in part representing expanded collaboration between the University of North Carolina (UNC), Oregon Health and Science University (OHSU), and Emory University on delivery of CPCRN’s Implementing Public Health Evidence in Action training curriculum.

Seeking grant funding for new research and dissemination efforts is a priority for CPCRN. **In the past year, members reported submitting 47 CPCRN-related applications for grant funding (2 that were workgroup-related and multicenter), worth over \$36.6 million, of which 39 applications were funded for a total of \$26.5 million dollars awarded.** Since 2004, CPCRN has applied for 1,330 grants (120 of them multicenter collaborations), totaling over \$1.6 billion in grant applications. **More than 650 (49%) of those grants were funded, totaling over \$696 million.** Multicenter collaborations have clearly brought strength to members’ grant applications. **Of the 120 multicenter grant**

applications submitted since 2004, 69 (58%) have been funded, securing over \$77 million in additional funding for CPCR-related collaborative research. CPCR progress reporting data shows that CPCR members develop relationships and consistently partner with state and federal breast, cervical, and colorectal cancer (CRC) detection programs as well as large health care systems and FQHCs in their grant-seeking efforts.

Reports, Plans, and Policies Created in Conjunction with State and National Programs

During Year 1 of the CPCR5 funding cycle, centers contributed to two reports and one plan in conjunction with state programs: University of Iowa contributed to the 2020 Cancer in Iowa Report for the State Health Registry of Iowa; University of Washington contributed to the Washington State Health Alliance' Community Checkup Spotlight: Colorectal Cancer Screening Report; and Emory University contributed to the Georgia Cancer Control Consortium (GC3) Plan.

Impactful Workgroup Research and Dissemination Activities

CPCR Workgroups engaged in a variety of research and dissemination activities that drove public health impact:

Cancer Screening Change Package

In partnership with the National Association of Chronic Disease Directors, the CPCR is participating in the development of a CDC-funded Cancer Screening Change Package (CSCP), based on the Million Hearts change package models (<https://millionhearts.hhs.gov/tools-protocols/action-guides/index.html>). The CSCP is intended to improve access and utilization of cancer screening services in accordance with USPSTF clinical standards and screening guidelines for BRCA-related, breast, cervical, colorectal, lung, and prostate cancers. The audience is primarily clinical and community practitioners, and there is an emphasis on community-initiated activities that address social determinants of health. 4CNC is conducting an environmental scan which includes interviews with CPCR subject matter experts, a CPCR Advisory Committee, and a panel of CPCR reviewers who will rate the candidate tools and resources. The technical assistance resource will be a co-branded, CPCR iCollab Workgroup product with wide distribution.

Modeling Evidence-Based Interventions (EBI) Impact Workgroup

In the Modeling EBI Impact Workgroup co-led by Drs. Stephanie Wheeler of UNC and Affiliate Melinda Davis of OHSU, members engaged in extensive efforts to increase CRC screening in vulnerable populations. Through this Workgroup, CPCR investigators from UNC and OHSU developed an interactive tool for stakeholders to model the impact of different EBIs and policy changes on CRC screenings and outcomes. The Workgroup's findings were used to motivate and implement a CRC screening outreach quality improvement initiative with county and state organizations. The Workgroup developed multiple models leading to seven peer-reviewed publications in the past year. They also developed a simulation website for their interactive tool that presents the results of their simulation studies, designed for stakeholders to support decision-making about the implementation of interventions and health policy changes to promote CRC screening. Workgroup members presented about their work three times at national meetings and obtained two federal grants to further their work.

Funded by the NIH, members of the Modeling EBI Impact Workgroup were awarded over \$5 million to support their research project titled "Screening More Patients for CRC Through Adapting and Refining Targeted Evidence-Based Interventions in Rural Settings (SMARTER CRC)." The effort is led by Dr. Melinda Davis who was a member of CPCR's Network Center at Oregon Health and Science University during the CPCR4 funding cycle and who continues to participate in CPCR5 as an affiliate member. SMARTER CRC is a two-phase project, designed to achieve the Cancer Moonshot objectives by reducing the burden of colorectal cancer (CRC) on the U.S. population. Specifically, investigators aim to improve CRC screening rates, follow-up colonoscopy, and referral to care in rural Medicaid patients by implementing a direct mail fecal testing program with targeted outreach and patient navigation for follow-up colonoscopy.

Organizational Theory for Implementation Science (OTIS) Workgroup

Co-led by Drs. Sarah Birken of Wake Forest University and Linda Ko of the University of Washington, the OTIS leadership team hosted a meeting with experts at the 12th Annual Dissemination and Implementation Conference, and presentations were made to NCI, the AcademyHealth conference, and Sweden's Linköping University. Furthermore, members of the group published and contributed chapters to the Handbook on Implementation Science, published in 2020.

Note: CPCR Workgroups and Collaborating Centers were asked to identify their most significant contributions to the Network throughout year 1 of the CPCR5 funding cycle. These activities are listed in the following sections of the Executive Summary. Please note: while the full range of CPCR Collaborating Centers and

Workgroups may not be reflected in this list of significant contributions, full details of activities for each are included in the main report.

Catalyzing Action and Effecting Change

CPCRN Collaborating Centers and Workgroups engaged in a variety of activities that demonstrated the Network's impact via catalyzing action and effecting change in partnership with community and policy organizations:

Cancer and COVID-19 Interest Group

Investigators across the Network came together to discuss the impact that the COVID-19 pandemic had on cancer patients and survivors and to consider the relationship between cancer prevention and control and public health's management of the pandemic. Activities included initial conceptualization of two manuscripts as well as gathering and summarizing information across existing CPCRN projects to inform strategies for the COVID-19 response. These efforts culminated in two publications in the journal *American Journal of Preventive Medicine*, led by Drs. Betsy Risendal at the Colorado School of Public Health and Cyndi Thomson at the University of Arizona and included authors from multiple other centers.

CPCRN Scholars Workgroup

Co-led by Drs. Cam Escoffery of Emory and Daniela Friedman of USC, the CPCRN Scholars Workgroup was created to recruit and educate "CPCRN Scholars"—students, postdoctoral fellows, junior faculty, practitioners, and other health professionals—in dissemination and implementation (D&I) science focused on cancer prevention and control and health equity. Through a formalized process including a D&I curriculum, trainings, mentorship, and active participation CPCRN Workgroups, it is their hope to increase: Scholars' research productivity, the depth and breadth of the Scholars' connectedness within the CPCRN, a diverse cancer research pipeline, and applied D&I work in academic and clinical settings.

Dissemination Communications

During this reporting period, CPCRN received a broad variety of coverage in the media and other dissemination avenues:

University of Arizona

The University of Arizona College of Public Health PRC launched a website for the University of Arizona (UAz) CPCRN Collaborating Center to share information about the work of, and investigators involved in the CPCRN. The website was launched with news articles by the university and the university's cancer center.

University of North Carolina

4CNC's Implementation Science initiative, *UNC ImpSci*, launched a Twitter account @UNCImpSci, which to date has nearly 1,500 followers and has launched several successful social media campaigns, including those centered around their Journal Club and the transitioning of their Implementation Science Speakers Series to a virtual format at the onset of the COVID-19 pandemic, enabling broader access to the speaker presentations.

University of Washington

Co-investigator, Dr. Wendy Barrington, was invited to join the University of Washington Tacoma's radio show, "Paw'd Defiance" as a guest speaker to engage in a discussion about racism and health. In an episode titled "Racism is a Public Health Crisis," Dr. Barrington and a colleague discussed social determinants of health and how different factors, including racism, negatively impact the health outcomes for people of color, particularly during the COVID-19 pandemic.

Requests for Scientific Expertise

CPCRN members' expertise was in high demand throughout the funding year. Members were asked to deliver presentations to researchers and staff, join national roundtables, and join planning committees, among other activities. A brief listing of some of those requests for expertise is featured below. More details are featured in the full report:

Colorado School of Public Health

- PI Betsy Risendal and co-investigator Jamie Studts were recruited by Colorado's Lung Cancer Screening Statewide Summit Planning Committee to share their expertise, create an agenda, recruit speakers, and present on evidence-based practices related to lung cancer screening;

- Andrea Dwyer and Dr. Patricia Valverde, co-investigators, were asked to participate in the National Navigation Roundtable based on their expertise with navigation and cancer screening and prevention. Ms. Dwyer was also requested to participate in the National Colorectal Cancer Roundtable for her expertise in these areas;
- Co-investigator Dr. Linda Overholser was asked to participate in the National Comprehensive Cancer Network's Survivorship Committee as well as the American Cancer Society Survivorship Workgroup based on her expertise as a primary care provider focused on survivorship care.

Emory University

Dr. Cam Escoffery, PI, was an invited speaker to the CDC Roundtable Series on Implementation Science. She presented on use of Implementation Science theories and frameworks to CDC researchers and staff.

University of Washington

Dr. Beverly Green, co-investigator, was invited and regularly contributes to the Colorectal Cancer Screening Workgroup for the Bree Collaborative to improve quality of care, outcomes, affordability, and equity in Washington State.

Other Significant Network Activities

CPCRN Collaborating Centers reported a wide variety of additional activities that they deemed as highly significant. These include:

Significant Network Advancements

- **CPCRN investigators formed a variety of new Workgroups and Interest Groups in Year 1** – In addition to several projects continuing from the previous funding cycle, CPCRN investigators came together to form a wide variety of new Workgroups and Interest Groups focused on shared areas of interest and expertise. Projects include: CPCRN Scholars Workgroup; iCollab Workgroup; Survivorship Workgroup; Health Behaviors Workgroup; Cancer and COVID-19 Interest Group; and Health Equity & Social Determinants of Health (SDOH) Interest Group.

Significant Grants

- **USC Rural and Minority Health Research Center Research Grant Program Award** – In the previous funding year, CPCRN investigators at USC were awarded \$2.8 million from HRSA to support a new initiative within the University's Rural and Minority Health Research Center (RMHRC). Director of the Center and PI of the research effort, CPCRN co-investigator Dr. Jan Eberth, leads the initiative which aims to shed light on persistent inequities in health experienced by minority and poor populations in the rural U.S. through innovative and relevant research that can be used to guide policy. Each of the projects investigators propose focuses on topics relevant to rural minority populations including: heterogeneity in drivers of overall and premature all-cause mortality within and across rural communities; rural-urban differences in adverse and positive childhood experiences; results from the National Survey of Children's Health; residential proximity to obstetric care providers and childbirth outcomes among rural women; social and community assets and health-related quality of life across rural and urban counties; and changes in five-year cancer survival rates among rural and urban populations.

Significant Publications

- Barrington, W. E., DeGross, A., Melillo, S., Vu, T., Cole, A., Escoffery, C., Askelson, N., Seegmiller, L., Gonzalez, S. K., & Hannon, P. (2019). Patient navigator reported patient barriers and delivered activities in two large federally-funded cancer screening programs. *Prev Med*, 129S:105858. doi: 10.1016/j.ypmed.2019.105858. PMID: 31647956
- Leeman, J. & Nilsen, P. Implementation strategies. (2020). In P. Nilsen & S. Birken (Eds.), *Handbook on Implementation Science*. UK: Edward Elgar Publishing.
- Risendal, B. C., Hébert, J. R., Morrato, E. H., Thomson, C. A., Escoffery, C. N., Friedman, D. B., Dwyer, A. J., Overholser, L. S., & Wheeler, S. B. (2021). Addressing COVID-19 Using a Public Health Approach: Perspectives From the Cancer Prevention and Control Research Network. *AJPM*, S0749-3797(21) 00114-001188. doi: 10.1016/j.amepre.2021.01.017. PMID: 33785276
- Thomson, C. A., Overholser, L. S., Hébert, J. R., Risendal, B. C., Morrato, E. H., & Wheeler, S. B. (2021). Addressing cancer survivorship care under COVID-19: Perspectives from the Cancer Prevention and Control Research Network. *AJPM*, 60(5), 732-736. doi: 10.1016/j.amepre.2020.12.007. PMID: 33663935
- Valverde, P. A., Burhansstipanov, L., Patierno, S., Gentry, S., Dwyer, A., Wysocki, K. L., Patterson, A. K., Krebs, L. U., Sellers, J., & Johnston, D. (2019). Findings from the National Navigation Roundtable: A call for competency-based patient navigation training. *Cancer*, 125(24), 4350-4359. doi:10.1002/cncr.32470. PMID: 31503340

Significant Presentations

- Hannon, P. A., Barrington, W. E., Cole, A. M., Coronado, G. D., & DeGroff, A. Strategically employing patient navigation to reduce colorectal cancer screening disparities. Panel session presented at the Annual Conference on the Science of Dissemination and Implementation; December 2019; Washington, DC.
- Hicklin, K., O'Leary, M. C., Nambiar, S., Mayorga, M. E., Davis, M. M., Wheeler, S. B., & Lich, K. H. Assessing the impact of multicomponent interventions on colorectal cancer screening: what would it take to reach the 80% target? Oral presentation at the Institute for Operations Research and the Management Sciences Annual Meeting, October 22, 2019. Seattle, WA.
- Zahnd, W. E., Petermann, V., Teal, R., Vu, M., Vanderpool, R. C., Rohweder, C., Askelson, N., Edward, J. E., Farris, P. E., Koopman Gonzalez, S. J., Ko, L. K., & Eberth, J. M., Cancer Prevention and Control Research Network Rural Cancer Workgroup. Interventions to Address the Financial Burden of Cancer Care: Recommendations from the Field. American Society of Preventive Oncology 44th Annual Meeting. 22-24 March 2020. Tucson, AZ.

Significant Training Workshops

- **University of Arizona “Pasos Adelante for Cancer Survivors” Interview Training** – The UAz has established an academic-community partnership with Mariposa Community Health Center (MCHC) to improve the health and reduce morbidity among border-dwelling Hispanic cancer survivors. Through a simultaneous mixed-method qualitative approach integrating semi-structured interviews, investigators aim to better understand healthy lifestyle behaviors in the target population and determine the most acceptable approach for that population for program adaption and delivery.

Significant Local Center Partnerships

- **Colorado SPH partnership to promote genetic and familial cancer screening** – The Alliance of Colorado Community Health Workers, Patient Navigators, and Promotores de Salud (“the Alliance”) have joined forces, involving CPCRN investigators of the Colorado SPH, to create a steering committee for the Colorado CPCRN. The committee is comprised of community members who have worked with patients in barrier reduction, care coordination, patient navigation, and patient education and/or community outreach and engagement, and their purpose is to review programs and evidence to support the CPCRN Collaborating Center’s local project goal of better identification of those who are high-risk for cancer based on genetic and familial syndromes.
- **NYU-CUNY participation in Asian American and Pacific Islander Workgroup** – Investigators from NYU-CUNY have been active in the national Asian American and Pacific Islander Workgroup, whose mission it is to advance research that informs legislative policy and community-level strategies to protect and support well-being in Asian American and Pacific Islander communities who have been impacted by the COVID-19 pandemic. This work is commissioned by the Congressional Tri-Caucus (i.e., the Congressional Black Caucus, Congressional Hispanic Caucus, and the Congressional Asian Pacific American Caucus). The Tri-Caucus’ specific mandate to the Workgroup and their partnering Workgroups is to study the health, mental health, and economic needs due to the pandemic on Asian American, Pacific Islander, Black/African American, Latinx, and indigenous communities.
- **UI partnership with Iowa Department of Public Health** – CPCRN investigators at UI continue to work with the Iowa Department of Public Health (IDPH) to increase HPV vaccination rates in Iowa. Through their analysis of Iowa’s immunization registry in 2018-2019, investigators have demonstrated how immunization registries can be used to target immunization efforts. They were able to merge zip code-level data to immunization registry data and provide a contextual analysis of adolescent immunization rates. These results have been used by the IDPH to prioritize locations and populations for immunization uptake efforts.
- **UNC partnerships to increase colorectal cancer screening** – In a large partnership involving UNC, the American Cancer Society, the NC Department of Public Health’s Cancer Control Branch, and Federally Qualified Health Systems, CPCRN investigators at UNC are contributing to the North Carolina Partnerships to Increase Colorectal Cancer Screening (NC PICCS) initiative which will use a five-year grant to increase CRC screening through implementing evidence-based interventions (EBIs) and other supporting strategies. The effort will be instrumental in catalyzing the action needed to improve colorectal cancer screening rates and affect long-term outcomes by reducing cancer burden across the state.

CPCRN Coordinating Center & Steering Committee

With leadership from the Coordinating Center, the Steering Committee met regularly to discuss the Network's strategic planning, scientific direction and productivity, completion of workgroup research projects, and dissemination of Network products. During year 1 of CPCRN5, the Coordinating Center continued to develop and improve processes and structures to support CPCRN activities by:

- Orienting new CPCRN centers to the network and helped them integrate into the network
- Hosting an in-person CPCRN5 Kickoff Meeting in January 2020
- Facilitating the development of 5 new workgroups and several additional interest groups
- Creating opportunities for relationship-building among network members
- Supporting workgroup activities
 - Programming surveys for 2 workgroups
 - Identifying a Coordinating Center liaison for all workgroups
 - Providing research support funds
- Guiding the network through the COVID-19 pandemic and the adaptations it necessitated in our work and approaches to that work and collaboration.
- Implementing the Network communications and dissemination strategy via the CPCRN website, newsletter, social media accounts, Network listserv, and scientific publications.

Conclusion

CPCRN has made substantial impact in cancer prevention and control and implementation science across its history dating back to 2002. With the beginning of the CPCRN5 funding cycle, CPCRN gained new members and continues to innovate, develop, implement, and evaluate evidence-based approaches to cancer prevention and control with their local, state, and national partners, influencing everything from local clinic practices to state cancer plans to national organizations' practices and policies. ***The Network's extensive history of producing nearly 2,000 publications, more than 2,000 presentations and trainings, and funded grants totaling nearly \$700 million in research dollars since 2004 demonstrate just a few of many ways the Network and its members' expertise have significant impact on the nation's dissemination and implementation of evidence-based cancer prevention and control research.***