HHS Public Access

Author manuscript

*Cancer Causes Control*. Author manuscript; available in PMC 2021 February 18.

Published in final edited form as:

*Cancer Causes Control*. 2018 December ; 29(12): 1163–1171. doi:10.1007/s10552-018-1113-1.

# Examining comprehensive cancer control partnerships, plans, and program interventions: successes and lessons learned from a utilization-focused evaluation

**Trina Pyron**[1], **Jamila Fonseka**[1], **Monique Young**[1], **LaTisha Zimmerman**[1], **Angela R. Moore**[1], **Nikki Hayes**[1]

[1]Comprehensive Cancer Control Branch, Division of Cancer Prevention and Control, Centers for Disease Control and Prevention, Atlanta, GA, USA

## Abstract

The National Comprehensive Cancer Control Program has experienced exponential growth over the past 20 years due to the coordination and collaboration of many stakeholders to sustain multisector coalitions, develop and execute data-driven plans, and successfully implement evidenced-based interventions across the United States. These stakeholders have worked tirelessly to address the burden of cancer by employing strategies that promote healthy behaviors to reduce cancer risk, facilitate screening, and address the needs of cancer survivors. The interaction between the comprehensive cancer control program and the coalitions to engage in this work has been coined the 3Ps: the partnership, the CCC plan, and CCC program interventions. This article describes the efforts to evaluate the growth of the comprehensive cancer control movement, especially as it pertains to coalition contribution, plan priority development and implementation, and intervention implementation. It describes successes and lessons learned from an evaluation whose findings can be used to bolster and sustain comprehensive cancer control programs and coalitions across the U.S.

### Keywords

Comprehensive cancer control; Evaluation; Program improvement; Coalition; Primary prevention; Screening; Survivorship; Disparities

## Introduction

The success of the National Comprehensive Cancer Control Program (NCCCP) over the past 20 years has been spearheaded by the interdependence of the NCCCP awardees, the comprehensive cancer control (CCC) partnerships, and the responsibility of these two entities to develop, implement, and evaluate state, tribe, and territory cancer plans. This approach successfully emphasizes cooperation and collaboration among varied disciplines to support the development and implementation of CCC plans—the blueprints for action used by states, tribes, and territories to guide coordination and integration of the work of cancer

✉ Trina Pyron, tpyron@cdc.gov.

programs [1]. The interaction between the NCCCP awardees and CCC partnerships to develop this blueprint or plan, identify CCC plan priorities, and operationalize the plan through the implementation of cancer prevention and control interventions offers a synergistic approach to reduce the cancer burden [2]. In order to articulate outcomes and facilitate further enhancement of the NCCCP, the Centers for Disease Control and Prevention (CDC) and NCCCP awardees continuously evaluate this approach that is also known as the 3Ps: the partnership, the CCC plan, and CCC program interventions [3].

Throughout the development and history of CCC, evaluation has been essential to both program planning and implementation [4]. Program evaluation efforts, which communicate outcomes, lessons learned, and recommendations for improvements, have contributed greatly to the growth and success of the program. This article describes the evaluation of CCC program and coalition activities conducted from 2012 to 2017. Key findings relevant to CCC partnership contribution, plan priorities, and intervention implementation are shared to illustrate the growth and the promise of this 20-year-old program.

## The 3Ps: partnerships, cancer plans, and CCC program interventions

CCC partnerships (also known as cancer coalitions) are driven by collaborative relationships among key organizations. Cancer coalitions comprise stakeholders uniquely positioned to achieve cancer plan goals and activities. Coalitions are responsible for the periodic revision of their jurisdiction's cancer plan and implementation of plan priorities [2, 5]. A well-functioning cancer coalition is integral to the successful implementation of a cancer plan's priorities [2, 5].

CCC plans identify how an organization or coalition will address the burden of cancer in its geographic area [2]. Although the process for developing a CCC plan varies, common elements pertaining to plan development include (1) convening leaders from coalition partner organizations to spearhead plan development; (2) coordination of plan development efforts by an organization who has dedicated staff; (3) reviewing relevant data to inform cancer plan goals, objectives, and strategies; and (4) the commitment of coalition members to develop and implement strategies across a defined geographic region [2]. CCC programs funded through the NCCCP are required to maintain, implement, and periodically revise CCC plans that are based on cancer incidence, mortality, and relevant behavioral and risk factor data [5]. In addition to this, CCC plans need to describe a pathway to reduce high burden cancers (e.g., female breast, cervical, colorectal, lung, and skin) and align with NCCCP priorities: primary prevention, early detection and screening, survivorship, implement policy, systems and environmental changes, promote health equity, and demonstrate outcomes through evaluation [5]. The NCCCP provides support for these efforts and promotes the idea of leveraging partnerships to create plans that are operationalized, in part, through the annual implementation of CCC program interventions. Lastly, the CCC program and coalition work collaboratively to implement evidenced-based interventions that are aligned with the CCC plan and NCCCP priorities. The Guide to Community Preventive Services (Community Guide), Research-tested Intervention Programs, and Cancer Control P.L.A.N.E.T. are sources routinely used to select interventions that are cost-effective, consistent with the organizational mission, and shown to be effective through research [6].

The selection of evidence-based interventions is also done in close consultation with partners, oftentimes leveraging the resources and subject matter expertise of partner organizations [6]. These interventions seek to promote healthy behaviors, screening, and survivorship wellness and are reported, to a great extent, in annual CCC program action plans [7–9].

In summary, the 3Ps describe a complex system in which programs and coalitions convene and commit to working collaboratively to address the burden of cancer in their jurisdiction; use data and other relevant information to inform the development of cancer plans; commit to using cancer plans to guide their work; and implement evidenced-based interventions that are aligned with priority areas. This system has been responsible for cancer prevention and control efforts in the U.S. for the past 20 years and is the focus of a utilization-focused evaluation that seeks to understand these interactions and gain insight into this sustainable public health model.

## Methodology

### NCCCP evaluation approach

Given the growth of the NCCCP, an evaluation approach that informs future program planning is essential [4]. Utilization-focused evaluation, developed by Michael Quinn Patton, is an approach based on the principle that an evaluation is judged on its usefulness to its intended users [10]. Therefore, evaluations need to be planned and conducted in ways that enhance the likely utilization of both the findings and of the process itself to inform decisions and improve performance [11]. Given that utilization-focused evaluations are evaluations designed for the intended user, the approach is extremely flexible and can be used for different types of evaluation (formative, summative, process, impact), as well as employ different research designs that capture different types of data [10].

The CDC Framework for program evaluation in public health is based on the basic tenets of utilization-focused evaluation; this six-step planning framework is aligned with standards for program evaluation to ensure that public health programs plan an evaluation that gathers accurate evidence, draws valid conclusions, and produce results that are used to improve the program [3]. The framework is operationalized in the NCCCP evaluation through the implementation of the following steps: evaluation stakeholders are engaged at the general practitioner, program awardee, and CDC management levels; an appropriate program description is developed from the implementation of an environmental scan that determines the current state of the program; evaluation questions examines the 3Ps and programs' capacity to implement comprehensive cancer control as it is intended; documents, performance measures, survey, and interview data are collected, analyzed, and interpreted; and evaluation findings with recommendations are disseminated to multiple stakeholders. CDC evaluations of the NCCCP seek to reflect the collective; likewise, the following results serve to document the work of the NCCCP awardees with an understanding that the work is a result of the combined effort of the 3Ps.

### Evaluating of the partnership, plan, and CCC program interventions

In 2012, a 5-year project period began for programs supported through the NCCCP. Following the NCCCP Evaluation Approach [3], a utilization-focused evaluation was conducted to assess the extent to which NCCCP awardees establish cancer coalitions/ partnerships; maintain and implement a current cancer plan; and implement evidence-based interventions to address the NCCCP priorities. Specifically, this evaluation posed the following questions: (1) to what extent are coalition members contributing to the attainment of NCCCP priorities; (2) to what extent are CCC plans aligned with NCCCP priorities; (3) to what extent are programs and coalitions implementing interventions aligned with NCCCP priorities; and (4) to what extent do NCCCP awardees have programmatic capacity necessary to effectively implement NCCCP priority areas? The evaluation used a mixed methods design that included (1) content analysis of key program documents conducted throughout the lifespan of the project; (2) collection of performance indicators established with programs in the first year of the project and reported annually through CDC's Chronic Disease Management Information System (CDMIS) (OMB# 0920-0841) and; (3) surveys conducted in years 2 and 4 of the program, coupled with interviews with select key program stakeholders (OMB #0920-0971) (Table 1).

To determine the extent to which coalition members assisted with the implementation of interventions that were aligned with the NCCCP priorities, program success stories, and performance measurement data were analyzed. Performance measurement indicators are mostly quantitative, high-level measures that allow us to document the products and or deliverables of specific program activities [12]. Programmatic data and performance measurement data on program staff, coalition membership, resources, planning documents (e.g., burden reports, cancer plans, evaluation plans, and evaluation reports), and action plans that describe program intervention implementation were collected from CDMIS. From 2012 to 2017, 69 programs located in all 50 states, District of Columbia, tribal nations, territories, and Pacific Island Jurisdictions reported to CDC any instance in which coalition members were involved in the planning, implementation, or evaluation of the key activities prescribed by the NCCCP.

CCC plans are data-driven and as such, often include goals and strategies to address high burden cancers with risk factors that can be mitigated by adopting healthy behaviors or seeking out screening. As a condition of the NCCCP, programs reported any efforts to address these high burden cancers within a program year as denoted by the program action plan. In addition to this, a content analysis of plans was conducted utilizing CDC's cancer plan repository and search function [13] to determine if plans included goals and objectives to emphasize primary prevention of cancer, facilitate screening, support survivors, or reduce cancer disparities. Efforts to emphasize primary prevention of cancer, facilitate screening, support survivors, and reduce cancer disparities can also be observed by characterizing CCC program interventions that are implemented under the guidance of the NCCCP.

To assess the CCC program interventions, a web-based survey captured brief descriptions of awardees' intervention efforts and related technical assistance needs. This web-based survey was administered to 69 CCC Program Directors (in addition to the 65 programs, Program Directors from Chukk, Yap, Kosrae, and Pohnpei were invited) in 2013 and 2015 (OMB

#0920-0971). In addition to the survey, key informant interviews were held with a subset of CCC Program Directors to identify facilitators and barriers for successful program interventions (OMB #0920-0971).

## Results

### Comprehensive cancer control partnerships

It has been posited that strong coalitions are sustained through buy-in, meaning coalitions are successful when their members are vested in the planning, implementation, and evaluation processes [2, 8]. The activities conducted by the cancer coalition not only impact the durability of the partnership, but also strengthen a state's or community's capacity to achieve its cancer control objectives [2, 8]. From 2012 to 2015, CCC programs reported coalition member contributions to the implementation of activities reported in annual action plans. Table 2 presents findings from performance measures that assess coalition members' contribution to implementing CCC interventions reported in the annual action plan.

To achieve this performance measure, programs had to assign either a coalition workgroup or member organization to an activity that was reported in the action plan. These partners were assigned to assist with activities to: prevent cancer or reduce cancer risk factors, increase access to screening and treatment, or support the needs of cancer survivors. The percentage of programs reporting that coalition members assisted with the implementation of primary prevention activities increased from 44 to 58% from year 1 to 5. We observed a similar increase in assistance from coalition members in the implementation of survivorship activities from 46 to 62% from year 1 to 5. The percentage reporting that coalition members assisted with the implementation of early detection/treatment activities increased from 45 to 61% during the project period. The data illustrate that programs and coalitions have worked on interventions supported through the NCCCP, and this collaborative relationship can also be seen by the adoption of plan objectives by CCC programs.

### Comprehensive cancer control plans

CCC plans are based on cancer incidence, mortality, and risk factor data. CCC programs' and coalitions' adoption of objectives that are based on highest burden cancers with modifiable risk factors allow for appropriate resource allocation to interventions that can address colorectal, cervical, female breast, lung, and skin cancer. Table 3 shows the extent to which programs adopted plan objectives that seek to reduce the incidence and mortality of high burden cancers. To achieve this performance measure, programs reported using cancer plan objectives related to one or all high burden cancers. Nearly, all of the CCC programs addressed high burden cancers, with year 1 reporting 78%, 83% in year 2, 74% in year 3, 77% in year 4, and year 5 reporting 75%. Over half of the programs had colorectal cancer objectives each year, with year 1 reporting 57% and year 5 reporting 55%. Only 15% in year 1 and 23% in year 5 addressed skin cancer.

CCC program contributions to cancer prevention and control efforts have led to changes in high burden cancer trends. Nationally, screening adherence for cancers such as colorectal have increased from 66.4% in 2014 to 67.1% in 2016 (BRFSS). Modifiable risk factors such

as tobacco usage also experienced changes, with those who never smoked increasing from 54.5% in 2012 to 57.2% in 2016 across all states and territories (BRFSS). Additionally, programs in Kentucky and Texas included objectives that focused on lung cancer prevention in their cancer plans; and have subsequently reported decreases in smoking initiation from 2012 to 2016.

## Comprehensive cancer control program interventions

CCC program interventions are either evidenced-based or promising practices that programs and coalitions implement collaboratively on an annual basis. CCC program interventions align with cancer plan objectives and NCCCP priorities, and seek to help affect policy, systems, or environmental change, foster community-clinical linkages, or facilitate health systems change. Tables 4, 5, and 6 summarize the findings of survey results that characterized program interventions implemented in 2013 and 2015. There was an 81% response rate with the survey implemented in 2013; and 72% response rate with the 2015 survey (6-Programs difference). The survey addressed multiple evaluation questions, including the degree to which funded NCCCP awardees were implementing interventions aligned with the NCCCP priorities.

In program years 2 and 4, programs reported interventions focused on primary prevention to include 204 and 202 interventions, respectively (Table 4). There were 42 interventions focused on early detection and treatment in program year 2 (2013) and 33 interventions in year 4 (2015) (Table 5); 49 interventions focused on survivorship in program year 2 and 42 interventions in year 4 (data not shown). In program year 2, primary prevention interventions were the highest number of interventions implemented, followed by survivorship and early detection and treatment. These same patterns were also observed in program year 4.

One new expectation of the NCCCP during this program cycle was the requirement for awardees to implement activities to demonstrate outcomes through formal evaluation. As a result, we saw increases in the percentages of interventions with formal evaluation. In program year 2, 24% of primary prevention interventions were evaluated. The percentage of primary prevention interventions that were evaluated were almost doubled (46%) in program year 4 (Table 4). Twenty-nine percent of early detection and treatment interventions were evaluated in program year 2 with a shift to 36% in program year 4 (Table 5). Fewer cancer survivorship interventions were evaluated, 20% and 24% in program years 2 and 4, respectively (data not shown). While overall there is a slight decrease in the total number of interventions implemented, the total number of interventions being evaluated increased from 24% in program year 2 to 42% in year 4, suggesting impacts of technical assistance, and programs conducting evaluations to document outcomes, towards the end of the project period (data not shown).

Table 4 describes the evidence-based interventions implemented in program years 2 and 4 that emphasize primary prevention of cancer. In program year 2, CCC programs focused their primary prevention interventions in the areas of tobacco prevention; nutrition and physical activity; sun safety, artificial UV light exposure; and HPV and HBV vaccination. Interventions for tobacco-free living included policy, systems, and environmental (PSE)

strategies used to inform the health impact of smoke-free policies and ordinances in a variety of settings, such as college and university campuses (ten interventions), multi-unit- and low-income housing (ten interventions), outdoor spaces (e.g., parks, beaches) (six interventions), and workplaces (four interventions). The findings also show that awardees focused on activities to increase healthy eating and physical activity to reduce obesity at worksites. This included establishment of healthy vending options; programs and environments to increase physical activity; establishment of worksite wellness programs; and use of food procurement guidelines in both schools and worksites. Similar primary intervention activities were also reported for program year 4. There is an increase in the number of HPV and HBV vaccination interventions in program year 4 suggesting HPV and HBV vaccination is an emerging issue. Table 4 shows the total number of primary prevention interventions being evaluated increasing from 24% in 2013 to 46% in 2015. Comprehensive cancer control programs in both Louisiana and North Dakota provide exemplary models of successful implementation of interventions that emphasize primary prevention.

## Program spotlight in primary prevention: Louisiana Comprehensive Cancer Control Program

Louisiana has the fifth highest cigarette-smoking prevalence in the U.S. suggesting a need to focus on this public health issue. The Louisiana Comprehensive Cancer Control Program (LCCCP) worked with community and national partners to increase awareness about the health impact of secondhand smoke exposure on casino workers and visitors in New Orleans. Understanding the negative effects of second hand smoke, in 2015, the city implemented a comprehensive smoke-free law for indoor worksites and public places. Thanks to a community-wide effort, bars, casinos, other worksites, and public spaces are now smoke-free [14].

## Program spotlight in primary prevention: the North Dakota Comprehensive Program

The North Dakota Comprehensive Cancer Control Program (ND CCCP) implemented an in-school vaccination program in partnership with local public health units. Unvaccinated middle and high school students or those who had not completed the entire HPV vaccine series benefitted from programs offered in their schools during school hours. In fact, the HPV program met or exceeded their first-year goal of increasing the completion rate of the HPV vaccination series by 10%. Program participants learned about vaccine safety, effectiveness, and cancers prevented by the HPV vaccine [14].

Table 4 describes program interventions implemented in the NCCCP priority area supporting early detection and treatment activities in program years 2 and 4. Programs implemented several interventions related to patient navigation or community health worker (CHW) programs. Awardees also implemented a smaller number of interventions supporting Patient-Centered Medical Home (PCMH) initiatives. Patient navigation and CHW program interventions included activities to increase access to cancer screening, treatment options, and clinical trials; address financial barriers to accessing screening or care; and provide emotional support to cancer patients/care givers. Awardees also worked to create and sustain partnerships to increase screening through PCMH initiatives. In addition to patient

navigation and PCMH initiatives, program also sought to promote screening through media campaigns as illustrated in the Oregon Program Spotlight.

## Program spotlight in early detection and screening: the Oregon Comprehensive Cancer Control Program

The Oregon Comprehensive Cancer Control Program created, “The Cancer You Can Prevent” campaign to focus on increasing colorectal cancer screening in African American, Native American, and Latino communities. Launched in nine communities, the campaign highlighted people previously screened to encourage screening in others. The campaign was promoted in Spanish and English using an array of multimedia platforms and in health plans. Due to campaign efforts: colon cancer screening rates among Oregonians aged 50–75 increased from 59 to 69% from 2010 to 2015; diagnoses of late-stage CRC dropped 12% from 2009 to 2013; and “The Cancer You Can Prevent” website had 25,954 visits and 48,524 page views from February 2015 to February 2017 [14].

As it relates to the implementation of interventions to address cancer survivorship, 49 and 42 interventions were implemented in program year 2 and program year 4, respectively, with 20% evaluated in year 2, and 24% in year 4. Interventions included increasing access to community wellness programs; professional development and networking opportunities for providers caring for cancer survivors; and data collection to better understand survivors’ experiences and their unique needs. Programs and coalitions addressed those needs by developing educational opportunities for health care providers and survivors to increase awareness regarding issues that impact the quality of life of cancer survivors or support cancer survivors directly by increasing access to community wellness programs. The state of Wyoming developed an exemplary lifestyle support services program for children and adolescent cancer survivors.

## Program spotlight in survivorship: Wyoming Comprehensive Cancer Control Consortium

From 2001 to 2010, there were 218 cases of cancer diagnosed in children and adolescents (0–19 years old) in Wyoming—an average of 22 cases per year. To address the fact that limited resources were available to support pediatric cancer survivors and their families, the Wyoming Comprehensive Cancer Control Consortium (WCCCC) created Camp Courage Wyoming. Camp Courage Wyoming is a unique camp experience that brings these children and their parents and siblings together to build a statewide survivorship support network [14].

CCC programs also implemented activities to reduce morbidity and mortality among underserved populations as part of a national priority to promote health equity as it relates to cancer control. Table 6 describes the number of interventions to improve health equity implemented in years 2 and 4 of the program cycle for prevention, early detection, and survivorship priorities. There were a number of interventions that were targeted to underserved or hard to reach populations. These populations include Alaska Natives and American Indians; low-income and low socioeconomic status (SES) groups; people with disabilities, lesbian, gay, bisexual, and transgender (LGBT) communities, racial and ethnic minorities; and people in counties with disproportionately high cancer rates. The majority of

interventions to address health equity focused on primary prevention. Tobacco-free living interventions included initiatives to support smoke-free air in workplaces and communities; educate tribal communities and decision makers; and promote tobacco cessation programs.

CCC programs also implemented interventions to support early detection and treatment among underserved populations. Specific areas of focus included interventions to eliminate cultural and language barriers; address financial challenges; and overcome barriers to screening. CCC programs also implemented interventions to address health equity in cancer survivorship. Evidenced-based interventions that seek to reduce a cancer disparity in an underserved population need to be culturally responsive. Comprehensive Cancer Control programs often use research-tested interventions and leverage the expertise of coalition members who understand the community to ensure success. This is illustrated in the following program spotlight.

## Program spotlight in survivorship: Iowa Comprehensive Cancer Control Program

The Iowa Comprehensive Cancer Control Program (ICCCP) designed a local grant initiative called Body and Soul (adapted from the National Cancer Institute) to provide funds for cancer prevention initiatives to predominantly African American organizations. In 2014, more than 1,300 African American residents across Iowa participated in the program [14].

## Building program capacity: facilitators and barriers to intervention implementation

This evaluation also provided insight regarding factors that influence program capacity, especially as it relates to the efforts to implement the NCCCP priorities. Each Program Director contacted to participate in capacity assessment interviews consented to the interview, thus the participation rate was 100%. Program Directors perceived that having clear NCCCP requirements, access to data to inform program and coalition action, and availability of resources and systems that encourage peer-to-peer learning enhanced capacity to develop and implement interventions that were aligned with the NCCCP priorities. In addition to this, Program Directors pointed out that unique contextual factors such as decision maker buy-in can influence program capacity. Program Directors reported four unique facilitators of NCCCP priority implementation: (1) dissemination of clear cooperative agreement requirements, especially as it relates to required activities for efficient and effective program implementation; (2) use of data to set priorities, inform program improvement efforts, and mobilize support for comprehensive cancer control; (3) availability and access to funding, committed staff, and partnerships for intervention development and implementation; and (4) access and use of Communities of Practice to encourage sharing of experiences and lessons learned from other CCC programs that operate within similar contexts. Program Directors also reported threats or challenges that can stymy program capacity and represent challenges for implementing NCCCP priority interventions. Commonly reported implementation challenges included chronic disease integration and coordination that may inadvertently lessen the importance of existing coalitions focused on cancer prevention and control; limited bandwidth of health systems especially as it relates to services and conditions; and the provision of structural supports necessary for care of target populations, such as access to transportation, culturally competent care, and affordable health care services.

## Summary

This utilization-focused evaluation implemented through the NCCCP 5-year program cycle from 2012 to 2017 provided the opportunity to examine the complex system by which comprehensive cancer control programs and coalitions sustain collaborative relationships, execute jurisdiction-specific CCC plans, and effectively implement CCC interventions that promote healthy behaviors, screening, and lifestyle supports for survivors in order to reduce cancer morbidity and mortality. CCC programs and coalitions implemented many primary prevention interventions, supported the implementation of early detection and treatment activities, conducted interventions to address the public health needs of cancer survivors. NCCCP awardees also created targeted interventions to address health equity in each of the priority areas. The activities undertaken by the programs and coalitions not only show alignment with CCC plan strategies and the NCCCP priorities, but also align with cross-cutting chronic disease prevention and control strategies established by CDC's National Center of Chronic Disease Prevention and Promotion in 2010 [15]. Comprehensive Cancer Control Programs exhibit many components of highly effective public health programs. The evaluation findings show that CCC programs exhibit key components necessary for effective program implementation: sustainable partnerships and coalitions with public- and private-sector organizations; use a group of related cancer prevention and control evidenced-based interventions that will greatly impact the cancer burden; and has access to rigorous, real-time, monitoring and evaluation to spur program improvement [16]. The evaluation findings also uncover a pathway to strengthen programs as they continue efforts to prevent and control cancer.

To support programs and coalitions as they continue to develop, implement, and evaluate their efforts, CDC and other members of the Comprehensive Cancer Control National Partnership (CCCNP) can continue to bolster their efforts by providing clear guidance in grants and cooperative agreements; developing opportunities for peer learning; and increasing the availability of technical assistance and training opportunities tailored to the unique context of comprehensive cancer control. In the subsequent program funding cycle (2017–2022), CDC has stated that NCCCP awardees plan and implement interventions in all six priority areas. In addition, awardees are also required to ensure these interventions focus on policy, systems, and environmental strategies, health systems transformation, and community-clinical linkages. CDC created a Library of Indicators (LIDS) Database to help awardees select and plan appropriate, evidence-based approaches in each priority area (to include environmental approaches, health systems change, and community-clinical linkages). CDC also made enhancements to the CDMIS data collection system to encourage the selection of these indicators that align with the six priorities. CDC also developed and offers a series of evaluation trainings to provide additional evaluation support to NCCCP awardees. The CCCNP continues to support both programs and coalitions through the creation of written resources, webinars, and workshops that aim to sustain CCC partnerships and effectively implement strategies that improve colorectal cancer screening, HPV uptake, and the adoption of healthy behaviors among cancer survivors [17].

Meaningful, productive partnerships are critical to the success of comprehensive cancer control efforts. The NCCCP was founded upon the premise that a coordinated and integrated

approach to cancer control creates synergies that are much more impactful than silo efforts. High-quality partnerships have the potential for greater impact by leveraging, combining, and capitalizing on complementary strengths and capabilities [2]. The continued success of the NCCCP will rely upon program capacity to work collaboratively with both internal and external partners to implement evidenced-based interventions aligned with priority areas as described in a state's, tribe's, or territory's cancer control plan. A commitment to continue efforts to implement utilization-focused evaluation that critically examines CCC partnerships, plans, and program interventions will help to document comprehensive cancer control accomplishments as well as identify opportunities for improvement that will see the benefits of collaboration well into the future.

## References


1. Given LS, Black B, Lowry G, Huang P, Kerner JF (2005) Collaborating to conquer cancer: a comprehensive approach to cancer control. Cancer Causes Control 16(1):3–14 [PubMed: 16208570]
2. Rochester PW, Townsend JS, Given L, Krebill H, Balderrama S, Vinson C (2010) Comprehensive cancer control: progress and accomplishments. Cancer Causes Control 21(12):1967–1977 [PubMed: 21069448]
3. Centers for Disease Control and Prevention (2010) Comprehensive Cancer Control Branch Program evaluation toolkit. Division of Cancer Prevention and Control. National Center of Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta
4. Rochester P, Chapel T, Black B, Bucher J, Housemann R (2005) The evaluation of comprehensive cancer control efforts: useful techniques and unique requirements. Cancer Causes Control 16(1):69–78 [PubMed: 16208576]
5. Department of Health and Human Services (2012) DP12–1205: Cancer Prevention and Control Program for state, Territorial and Tribal Organizations Atlanta
6. Steele CB, Rose JM, Chovnick G, Townsend JS, Stockmyer CK, Fonseka J, Richardson LC (2015) Use of evidence-based practices and resources among Comprehensive Cancer Control Programs. J Publ Health Manag Pract JPHMP 21(5):441–448. 10.1097/PHH.0000000000000053
7. Puckett M, Neri A, Underwood JM, Stewart SL (2016) Nutrition and physical activity strategies for cancer prevention in Current National Comprehensive Cancer Control Program plans. J Commun Health 41(5):1013–1020. 10.1007/s10900-016-0184-8
8. Seeff LC, Major A, Townsend JS, Provost E, Redwood D, Espey D, Dwyer D, Villanueva R, Larsen L, Rowley K, Leonard B (2010) Comprehensive cancer control programs and coalitions: partnering to launch successful colorectal cancer screening initiatives. Cancer Causes Control CCC 21(12):2023–2031. 10.1007/s10552-010-9664-9 [PubMed: 21086035]
9. Underwood JM, Lakhani N, Finifrock D, Pinkerton B, Johnson KL, Mallory SH, Migliore Santiago P, Stewart SL (2015) Evidence-based cancer survivorship activities for comprehensive cancer control. Am J Prev Med 49(6):S536–S542. 10.1016/j.amepre.2015.08.011 [PubMed: 26590649]
10. Patton MQ (2008) Utilization-focused evaluation. SAGE, Thousand Oaks
11. Patton MQ (1997) Utilization-focused evaluation: the new century text, 3rd edn Sage, Thousand Oaks
12. Townsend JS, Moore AR, Mulder TN, Boyd M (2015) What does a performance measurement system tell us about the National Comprehensive Cancer Control Program? J Publ Health Manag Pract 21(5):449–458. 10.1097/phh.0000000000000124
13. Centers for Disease Control and Prevention (2018) Comprehensive cancer control plan search. US Department of Health and Human Services, Atlanta
14. Stewart SL, Hayes N, Moore AR, Bailey R, Brown P, Wanliss E (2018) Combating cancer through public health practice in the United States: an in-depth look at the National Comprehensive Cancer Control Program In: Majumder AA (ed) Public health—emerging and reemerging issues. Intech, Rijeka

15. Bauer UE, Briss PA, Goodman RA, Bowman BA (2014) Prevention of chronic disease in the 21st century: elimination of the leading preventable causes of premature death and disability in the USA. Lancet 384(9937):45–52. 10.1016/S0140-6736(14)60648-6 [PubMed: 24996589]

16. Frieden TR (2014) Six components necessary for effective public health program implementation. Am J Publ Health 104(1):17–22

17. Partnership CCCN (2018) About us. https://www.cccnationalpartners.org/about-us. Accessed 18 July 2018

**Table 1**

Evaluation methodology

| Evaluation question | Data collection methods | | | | |
|---|---|---|---|---|---|
| | Performance measurement data | CCC program director survey | Interview | CCC plan review | Grantee success stories |
| Partnerships | | | | | |
| To what extent are coalition members contributing to the attainment of NCCCP priorities? | x | | | | x |
| Cancer plans | | | | | |
| To what extent are CCC plans aligned with NCCCP priorities established in 2010? | | x | | x | |
| CCC program interventions | | | | | |
| To what extent NCCCP awardees have programmatic capacity necessary to effectively implement NCCCP priority areas? | x | x | x | | x |
| To what extent are programs and coalitions implementing interventions aligned with NCCCP priorities? | | x | x | | x |

**Table 2**

National Comprehensive Cancer Control Program Coalition Members' Contribution Performance Indicator, 2012–2017

| **Performance indicator: partner organizations/workgroups are contributing to interventions reported in the action plan** | **NCCCP programs that met the indicator *N* = 69** | | | | |
|---|---|---|---|---|---|
| | **Year 1 2012–2013 *n* (%)** | **Year 2 2013–2014 *n* (%)** | **Year 3 2014–2015 *n* (%)** | **Year 4 2015–2016 *n* (%)** | **Year 5 2016–2017 *n* (%)** |
| Primary prevention activities | 30 (43.5) | 39 (56.5) | 37 (53.6) | 42 (60.9) | 40 (58.0) |
| Early detection/treatment activities | 31 (44.9) | 33 (47.8) | 34 (49.3) | 40 (58.0) | 42 (60.9) |
| Survivorship activities | 32 (46.4) | 35 (50.7) | 43 (62.3) | 42 (60.9) | 43 (62.3) |

**Table 3**

National Comprehensive Cancer Control Program Achievement priorities addressed in cancer plan performance indicator, 2012–2017

| **Performance indicator: long-term objectives that address high burden cancer (e.g., colorectal, cervical, breast, lung, and skin)** | **NCCCP programs that met the indicator *N* = 69** | | | | |
|---|---|---|---|---|---|
| | **Year 1 2012–2013 *n* (%)** | **Year 2 2013–2014 *n* (%)** | **Year 3 2014–2015 *n* (%)** | **Year 4 2015–2016 *n* (%)** | **Year 5 2016–2017 *n* (%)** |
| Objectives addressing any high burden cancer | 54 (78.3) | 57 (82.6) | 51 (73.9) | 53 (76.8) | 52 (75.4) |
| Colorectal | 39 (56.5) | 40 (58.0) | 38 (55.1) | 38 (55.1) | 38 (55.1) |
| Cervical | 30 (43.5) | 31 (44.9) | 31 (44.9) | 33 (47.8) | 33 (47.8) |
| Female breast | 29 (42) | 32 (46.4) | 28 (40.6) | 27 (39.1) | 28 (40.6) |
| Lung | 25 (36.2) | 27 (39.1) | 25 (36.2) | 26 (37.7) | 28 (40.6) |
| Skin | 10 (14.5) | 12 (17.4) | 14 (20.3) | 13 (18.8) | 16 (23.2) |

**Table 4**

Primary prevention interventions reported by NCCCP programs, survey results

| Primary intervention focus | Number of interventions | | Percentage of interventions evaluated | |
|---|---|---|---|---|
| | Year 2 2013 | Year 4 2015 | Year 2 2013 (%) | Year 4 2015 (%) |
| Promote tobacco-free living | 63 | 55 | 32 | 42 |
| Improve nutrition and physical activity and reduce obesity in communities | 31 | 25 | 19 | 36 |
| Promote sun safety | 28 | 26 | 21 | 42 |
| Improve nutrition and physical activity and reduce obesity at worksites | 26 | 29 | 19 | 59 |
| Improve nutrition and physical activity and reduce obesity in schools | 21 | 23 | 29 | 57 |
| Increase vaccination for HPV and HBV | 19 | 29 | 16 | 52 |
| Reduce exposure to artificial UV light sources | 16 | 15 | 13 | 33 |
| Total | 204 | 202 | 24 | 46 |

**Table 5**

Early detection and treatment interventions reported by NCCCP programs, survey results

| Early detection and treatment intervention focus | Number of interventions | | Percentage of interventions evaluated | |
|---|---|---|---|---|
| | Year 2 2013 | Year 4 2015 | Year 2 2013 (%) | Year 4 2015 (%) |
| Patient Navigator (PN) or Community Health Worker (CHW) Programs | 32 | 28 | 31 | 43 |
| Patient-Centered Medical Home initiatives | 10 | 5 | 20 | - |
| Total | 42 | 33 | 29 | 36 |

**Table 6**

Interventions addressing health equity reported by NCCCP programs, survey results

| NCCCP priorities | Interventions addressing health equity | |
|---|---|---|
| | Year 2 2013 | Year 4 2015 |
| Emphasize primary prevention of cancer | 102 | 135 |
| Promote tobacco-free living | 40 | 51 |
| Improve nutrition and physical activity and reduce obesity in communities | 20 | 17 |
| Promote sun safety | 8 | 10 |
| Improve nutrition and physical activity and reduce obesity at worksites | 11 | 19 |
| Improve nutrition and physical activity and reduce obesity in schools | 12 | 14 |
| Increase vaccination for HPV and HBV | 10 | 20 |
| Reduce exposure to artificial UV light sources | 2 | 3 |
| Support early detection and treatment | 32 | 28 |
| Patient Navigator (PN) or Community Health Worker (CHW programs) | 25 | 12 |
| Patient-Centered Medical Home initiatives | 7 | 4 |
| Address public health needs of cancer survivors | 21 | 15 |
| | 21 | 15 |
| Total | 156 | 183 |