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Comprehensive cancer control in the U.S.: summarizing twenty years of progress and looking ahead

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Abstract

In order to celebrate the accomplishments of the Centers for Disease Control and Prevention's (CDC) National Comprehensive Cancer Control Program (NCCCP), the Comprehensive Cancer Control National Partners (CCCNP) developed this Special Issue on Cancer Causes and Control. This, the third Special Issue on Comprehensive Cancer Control (CCC), is a reflection of 20 years of building successful partnerships to prevent and control cancer; planning and implementing strategic cancer control; collaborating to address national cancer prevention and control priorities; evaluating efforts; sharing successes; and, in later years, serving as a model for global cancer control planning and implementation. The CDC currently supports cancer control planning and implementation in all 50 states, the District of Columbia, eight tribes or tribal organizations, and seven Pacific Island Jurisdictions and U.S. territories through the NCCCP. CCC is an approach that brings together multi-sector partners to address the cancer burden in a community collectively by leveraging existing resources and identifying and addressing cancer related issues and needs. The Comprehensive Cancer Control National Partnership (CCCNP), a partnership of national organizations, has been committed to supporting comprehensive cancer control efforts since 1999. We summarize the efforts described in this Special Issue. We also describe opportunities and critical elements to continue the momentum for comprehensive cancer control well into the future.

Keywords

Cancer control; Evaluation; Program success; Coalition; Primary prevention; Screening; Survivor; Partnership

Introduction

As described in the articles in this Special Issue, the National Comprehensive Cancer Control Program (NCCCP) has accomplished a great deal over the past 20 years. These accomplishments are largely attributable to the coordination and collaboration of the many partners committed to multi-sector coalitions across the country to develop and execute data-informed plans and to implement evidence-based interventions that prevent and control cancer. Comprehensive Cancer Control (CCC) coalitions have worked to address the burden of cancer by employing strategies that promote healthy behaviors to reduce cancer risk, support activities to increase access to screening, and address the needs of cancer survivors. In addition, as described in the "Cancer Control Planning: Self-Assessment for Pre-Planning, Development, Implementation and Evaluation of National Cancer Control Plans" article of this Special Issue [1], this collaborative and strategic approach to cancer control planning has also attracted global interests. Internationally, more and more countries have become interested in developing and implementing national cancer control plans.

Going forward, CCC programs and coalitions can accelerate their reach and impact through continued collaboration, a focus on health equity, and appropriate adaptation of evidence-based interventions to meet the needs of local populations.

The key to success: collaboration

This Special Issue highlights the importance of strong and effective partnerships in several articles. "Collaborating to Conquer Cancer: The Role of Partnerships in Comprehensive Cancer Control" [2]; "Advancing Health Equity through the National Comprehensive Cancer Control Program" [3]; "How the Comprehensive Cancer Control National Partnership Shapes the Public Health Workforce" [4]; and "Evaluating Centralized Technical Assistance as an Implementation Strategy to Improve Cancer Prevention and Control" [5], demonstrate how effective coalitions can be designed and how they can be used to address important issues in cancer control.

CCC efforts at the state and national levels are exemplars of collaboration. Stakeholder-driven cancer plans that were developed based on state, tribal, and territory data show us the way to address tough cancer issues by incorporating evidence-based interventions into cancer control plans for moving forward. Coalitions work together to leverage strengths, resources, and organizational will to implement plan priorities. As described in the "Examining Comprehensive Cancer Control Partnerships, Plans, and Program Interventions: Success and Lessons Learned from a Utilization-Focused Evaluation" [6] article in this issue, plans and partnerships work. We have witnessed this over the past 20 years and have learned from challenges, successes, and experience. Cancer plans provide a vision of how things could be as well as a roadmap for how to get there.

The NCCCP was built upon the premise that a coordinated and integrated approach to cancer control creates synergies that are much more impactful than silo efforts [7]. We have demonstrated in this body of work how successful NCCCP efforts have reduced cancer burden. These efforts include cancer prevention activities such as reducing exposure to radon

and second-hand smoke, increasing human papilloma virus (HPV) vaccination rates, and improving community environments to foster physical activity. CCC programs and coalitions have also expanded the reach of cancer screening programs and improved the quality of life for cancer survivors.

At the national level, ongoing support of coalitions from the CCCNP has built professional capacity for comprehensive cancer control and prevention. Each CCCNP organization brings unique skills to trainings and technical assistance that focus on establishing and maintaining strong partner-ships that can adapt and implement evidence-based cancer control programs and plans. Two partner organizations have also provided targeted technical assistance through cooperative agreements from the CDC. The American Cancer Society and George Washington University Cancer Center have helped coalitions advance colorectal cancer screening; HPV vaccination; patient navigation; cancer survivorship; evidence-based communication planning and implementation; policy, systems, and environmental change; and provision of care for diverse racial, ethnic, sexual, and gender minorities.

Comprehensive cancer control in action

CCC coalitions may vary in how they are structured and differ on the specific topics that they choose to focus on based on the needs of their populations, but effective coalitions share many of the same attributes. While the structure, vision and mission of coalitions may vary, examples from the CCCNP, the South Dakota Cancer Coalition and the Kansas Cancer Partnership highlight the importance of collaborating to achieve the goals of comprehensive cancer control [6]. These partnerships all have formal structures that allow for diverse membership that is representative of the needs of their populations. With limited resources, ongoing strategic planning is critical for identifying priority areas. Workgroups develop and implement topic-specific short and medium-term action plans. Reviewing coalition membership on a regular basis provides opportunities to identify who may not be at the table and who needs to be there to accomplish coalition goals, and helps identify ways to engage them on a permanent or ad hoc basis.

In addition to leveraging the resources and networks of diverse stakeholders, evidence-based cancer control messages are most effective when diffused and reinforced through multiple channels over time [8, 10]. Thoughtful planning and implementation raises community awareness, shapes attitudes, and changes behaviors, as has been demonstrated in NCCCP programs. In this issue, Love and colleagues [11] describe the importance of multilevel communication campaigns. Rural cancer screening campaigns have made impressive strides with one–on–one peer conversations, client reminder calls, and print media [9]. Effective communication campaigns also require active listening and engagement with the community where health improvements are targeted. The Tampa Bay-Hai-tian Heritage Festival collaboration honored community priorities by expanding the focus of their health interventions to include hypertension, diabetes and HIV/AIDS— an exemplar for removing silos to address critical com-munity health concerns [12]. While past communication campaigns have been impressive [9, 10], it is imperative to move beyond awareness-raising to identify and tap into the values that not only drive individual and cultural health behaviors but also inform policy, systems, and environ-mental (PSE) change strategies that support

these healthy behaviors. Strategies that support changes to policies, systems and environments can have broad impact on public health and help provide sustainable cancer prevention and control. Such strategies include activities designed to inform decision-makers and the public about the health impact of policies or regulations, improve the systematic delivery of preventive health services, and modify environments that make it easier for people to increase healthy behaviors. Many times people know what the healthy choice is, but do not have the financial means or personal will to embrace those choices due to socioeconomic and environmental conditions.

Health equity has been a cornerstone of comprehensive cancer control since its inception and is a crosscutting priority for the NCCCP. Integrating health equity requires accessing and utilizing data to identify where there are opportunities for addressing disparities. Coalitions can address health equity by reviewing their membership and recruiting new partners that are representative of all members of their community. This not only invites broader community engagement to better understand the issues, but, it also establishes trust and increases the likelihood of appropriate buy-in before interventions are developed.

One recent area of focus for CCC efforts is cancer survivorship. The expansion of screening programs coupled with advances in treatment have led to an ever-growing cancer survivor population in the U.S. and globally. Cancer survivors benefit from the same PSE strategies that prevent cancer, i.e., smoke-free environments, availability and appeal of healthy foods, opportunities for physical activity through complete streets and safe residential spaces, and mental health supports [13]. Survivorship Care Plans (SCP) are intended to improve information sharing between providers and patients, (i.e., about treatment summaries, recommended follow-care, and responsibilities for follow-up care providers), bolster survivor wellness, and coordinate care—hallmarks of quality, patient-centered care.

Looking ahead, there are opportunities to ask patients, caregivers, and families how the cancer care system is doing by capturing patient reported outcomes (PROs). What are cancer survivors experiencing throughout treatment and long-term? How can payers incorporate these data into value-based payment algorithms? It is not enough to treat a tumor if the result is financial toxicity, physical impairment, and mental distress.

Implementation considerations: the importance of community context and stakeholder input

Going forward, CCC programs and coalitions will benefit from attention to quality of evidence and adaptation for context. The growing field of implementation science studies explores how best to promote and adapt evidence to accelerate impact on population health by fitting interventions within health care contexts and public health environments [14].

Smart application of evidence includes careful selection of proven interventions, evaluating the context where the intervention will be implemented, and adapting the intervention while maximizing fidelity of core ingredients of the intervention [15]. See Fig. 1 for consideration of "green light" areas, where interventions can probably be changed with little impact on

efficacy, "yellow light" areas where caution is warranted, and "red light" areas that are core to the intervention.

Another key to tailoring implementation is inclusivity during coalition building. Local decisionmakers, such as payers and social entrepreneurs, are critical to effective CCC advancements. For example, employers who provide compensated time off for cancer screenings, and make the healthy choice the easier choice through tobacco-free work sites and healthy food offerings will yield financial returns in employee productivity [16]. Payers can align efforts with clinical experts to identify misaligned incentives in cancer treatment that perpetuate skyrocketing costs and continue to prevent those who can benefit from accessing existing standard-of-care as well as novel therapies.

A vision for the future

Socioeconomic status remains a primary driver of health in the U.S. Racial and ethnic minorities continue to face disproportionate challenges to wellness through residential discrimination, social stigma, and chronic stress with few supports. Sexual and gender minorities share chronic exposure to social stigma and often remain uncounted and are, thus, invisible in the context of science and population health measures that determine public health investments. Collectively, more lives could be saved by reframing, reassessing, and reprioritizing our goals for CCC in the U.S. to center our efforts on health equity [17].

As described in the "Advancing Health Equity" article in this Special Issue [3], public health programs like those funded through the NCCCP play a key role in the successful implementation and uptake of activities related to addressing health equity. To further advance health equity, addressing the gaps in research and evaluation of interventions designed to reduce health disparities is important.

Evidence-based cancer control strategies are scalable through training, mentorship, infrastructure investments, and novel technological approaches. Inaction is unacceptable when some people remain uncounted due to inadequate surveillance systems, untreated due to workforce capacity constraints, and without access to the most basic pain relief [18]. Access to effective, evidence-based cancer care is possible when we build capacity from "the inside out and the bottom up" [19].

While it can be enticing to measure CCC impact based on numbers reached, CCC also means reaching and supporting those who face the most challenges in accessing and adhering to cancer screening and treatment. Cancer develops over decades. Thus, it is valuable for CCC efforts to educate decision-makers continuously about the benefits of up-front investments to prevent and mitigate the impacts of cancer-including death, disability, and lost productivity long-term. A demonstrated commitment to valuing diverse perspectives when developing future leaders can also diversify the scientific, public health, policy, and clinical workforce so that leaders we are educating look more and more like the communities we serve.
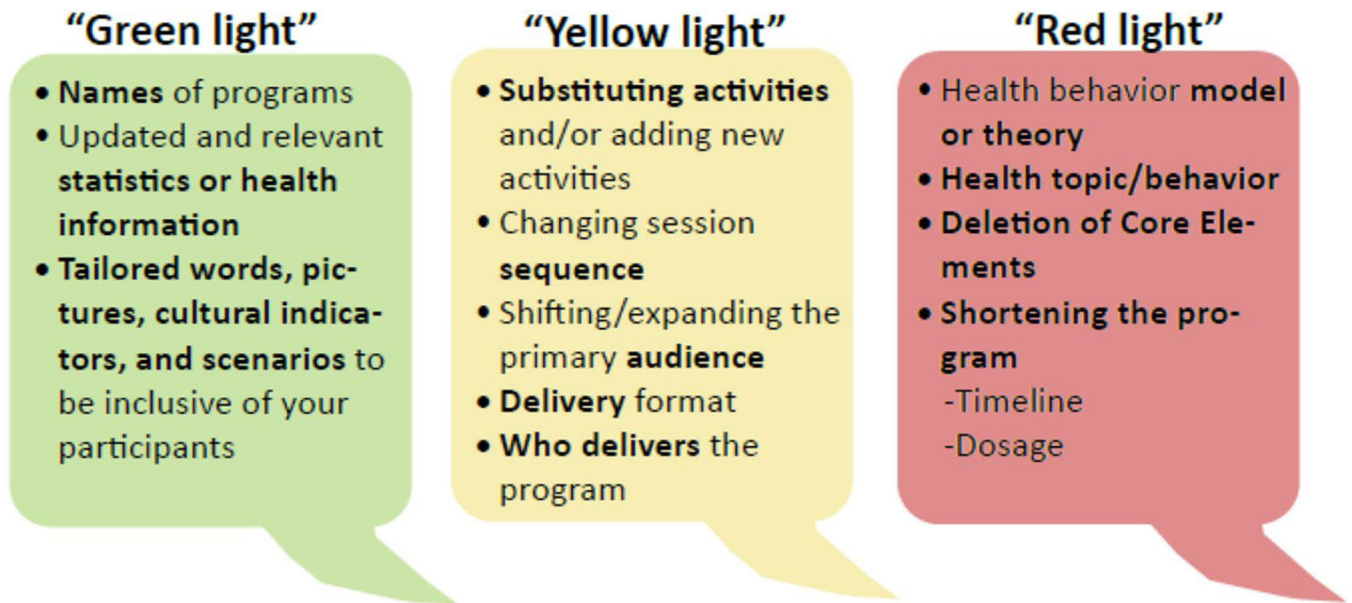
Conclusion

The continued success of the NCCCP relies upon working 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. Continued federal, state, and community level support is critical. The vast and rich information we have from 20 years of experience provides a strong foundation to build on. It is an "engine of change" we should fully utilize. The infrastructure exists to apply what is known in evidence-based cancer control efforts at every level-through program and practice policies, organizational systems change, environmental modifications, and community interventions to benefit employers, community-based organizations, health care systems, and, ultimately, to patients and their loved ones.

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"Green light"

- **Names** of programs
- Updated and relevant **statistics or health information**
- **Tailored words, pictures, cultural indicators, and scenarios** to be inclusive of your participants

"Yellow light"

- **Substituting activities** and/or adding new activities
- Changing **session sequence**
- Shifting/expanding the primary **audience**
- **Delivery** format
- **Who delivers** the program

"Red light"

- Health behavior **model or theory**
- **Health topic/behavior**
- **Deletion of Core Elements**
- **Shortening the program**
  -Timeline
  -Dosage

Fig. 1.
NIH adapted from https://www.acf.hhs.gov/sites/default/files/fysb/prep-making-adaptations-ts.pdf