

EVALUATING THE NCI COMMUNITY CANCER CENTERS PROGRAM PILOT

Summary of Key Findings

In 2007, the National Cancer Institute (NCI) launched the NCI Community Cancer Centers Program (NCCCP), a strategic partnership with 16 community hospitals across the United States. This 3-year pilot program aimed to build a community-based research platform to support a wide range of basic, clinical, and population-based research across the cancer care continuum—from prevention, screening, diagnosis, treatment, survivorship, through end-of-life care. This document provides an overview of the context within which the NCCCP pilot was implemented and key evaluation findings.

The Cancer Care Context for the NCCCP

The vast majority of cancer care—up to 85%—occurs in the community. The NCCCP was designed to expand cancer research and deliver the latest, most advanced cancer care to a greater number of Americans in the communities where they live (<http://ncccp.cancer.gov/about/index.htm>).

Expanded access to clinical trials and high-quality care is particularly important in light of NCI's long-standing commitment to addressing health care disparities. Disparities in access to care and quality of cancer care continue to occur among racial and ethnic minorities, residents of rural areas, the elderly, the uninsured and underinsured, and those who are socioeconomically disadvantaged.

Another driving force behind the NCCCP was the recognition that cancer care today is a complex undertaking. It is managed by multiple primary and specialty care providers, often involves a combination of treatments, and includes complex transitions from one stage of care to another. The realities of cancer care highlight the need for enhanced communication, improved care coordination strategies, and improved health information technology systems. Supporting research on these issues is one way NCI is working to improve access to and quality of care throughout the cancer care continuum.

Through guidance and technical assistance, NCI aimed to improve the capacity of the NCCCP pilot sites to respond effectively to these driving forces in cancer care. A heterogeneous group of 16 sites, including independent hospitals and multi-hospital health systems, participated. These sites represented a cross-section of U.S. communities, including those in rural, suburban, and urban areas.

Key Characteristics of the NCCCP Pilot (2007 – 2010)

The NCCCP had several characteristics that distinguished it from other types of programs. One defining characteristic was the focus on activities to reduce healthcare disparities. Forty percent of awarded funds were designated for disparities activities. This cross-cutting theme was integrated into the other key program components, whose objectives were to:

- Enhance clinical trials infrastructure and participation;
- Improve access to and quality of cancer care;
- Enhance survivorship and palliative care services;
- Enhance use of information technology and electronic health records to support improvements in research and care delivery; and
- Increase capacity to collect biospecimens to support genomics-based research.

A second major characteristic was that the NCCCP represented a true public-private partnership. NCI provided base funding as well as strategic guidance and technical assistance. The participating sites and their top management teams made significant financial and programmatic co-investments to facilitate the staffing and structural changes necessary to implement the program.

Evaluating the NCCCP Pilot

NCI used a theory-driven process and outcome evaluation to assess the implementation of the overall program and its components. This state-of-the-art evaluation was designed and conducted independently by RTI International (RTI). RTI used a rigorous, multi-year, mixed-method approach to examine five levels of implementation: network, organization, program, program component, and patient.

The evaluation included case studies, a micro-cost analysis, and a strategic case analysis; patient surveys and focus groups; a comparative evaluation that included non-NCCCP sites; an environmental analysis; and an examination of the effect of NCCCP participation on sites' clinical trial accruals. In evaluating the program, RTI focused on the four components that had specific deliverables associated with measurable outcomes: disparities, clinical trials, quality of care, and survivorship and palliative care. Implementation of the remaining two program components—information technology and biospecimens—was not evaluated because these components focused on assessing capacity and identifying gaps and therefore did not assess outcomes.

Three questions guided the evaluation:

- What changes in each program component and for the cancer program overall seem to be facilitated by the NCCCP?
- What organizational characteristics seem important to effectively manage and implement the NCCCP?
- What changes and elements are sustainable and/or potentially replicable in other community hospitals?

Specific findings from these questions are provided in the following table. The findings are derived from the evaluation reports, available at <http://ncccp.cancer.gov/about/reports-and-tools.htm>.

NCCCP Evaluation: Results as of the End of the Pilot Program

What changes in each program component and for the cancer program overall seem to be facilitated by the NCCCP?

HEALTHCARE DISPARITIES COMPONENT

- All sites increased accrual of underserved populations (e.g., racial/ethnic minorities, rural), particularly elderly patients, into clinical trials.
- All sites demonstrated significant progress in tracking race and ethnicity of patients using Office of Management and Budget categories despite organizational and hospital department system challenges.
- All sites focused on building capacity as the primary outcome for this component because most had not defined and prioritized underserved populations or identified appropriate partners and outreach strategies to address health care disparities. Most sites:
 - maintained or increased the number of dedicated staff;
 - increased patient navigation capacity; and
 - established formal community partnerships focusing on underserved populations.

For details on these findings, see Chapter 9 of the Integrated Evaluation Report. See also the Clinical Trials Analysis Report.

CLINICAL TRIALS COMPONENT

- All sites enhanced their capacity to conduct trials and other research activities. Sites:
 - increased the number of trials actively enrolling participants; sites with little or no initial infrastructure were able to open trials;
 - increased overall accrual to trials; sites with well-developed infrastructure increased accrual only from disparate populations;
 - increased the proportion of physicians enrolling their patients in trials;
 - expanded their trial menu into cancer control trials (e.g., symptom management, quality of life, prevention) and correlative studies as well as early phase trials; and
 - increased the number of trials sponsored by industry.
- Most sites enhanced their clinical research infrastructure, as measured by:
 - staffing (e.g., nearly all increased total research staffing, half established research medical directors);
 - related affiliations (e.g., most increased number of cooperative group memberships); and
 - systems (most developed an electronic tracking system during the pilot, established dedicated research pharmacies, and formed on-site Internal Review Boards).

For details on these findings, see Chapter 10 of the Integrated Evaluation Report. See also the Clinical Trials Analysis Report.

QUALITY OF CARE COMPONENT

- All sites increased the number and types of multidisciplinary care teams; several sites established teams for the first time and half increased the types of teams.
- All sites developed and endorsed use of the Conditions of Participation, which specified requirements for physicians to be affiliated with their cancer program and NCCCP. This was done because most sites relied on private practice physicians who had limited or no formal relationships with the NCCCP site.
- Sites varied in their implementation of the Conditions of Participation. Several sites implemented relatively strict Conditions that were intended to raise the standard of physician involvement in the cancer program.

What changes in each program component and for the cancer program overall seem to be facilitated by the NCCCP?

- All sites consistently improved quality of care over time for breast or colon cancer patients diagnosed at the NCCCP sites, as measured by five treatment indicators. Of the five indicators, one (treatment of hormone-receptor positive breast cancer that adheres to hormone therapy guidelines) showed significant differences in NCCCP sites when compared to similar hospitals not participating in NCCCP.
- All sites were challenged in efforts to improve quality of care because few private practice physicians had fully integrated their electronic health records systems with hospital records.

For details on these findings, see Chapter 13 of the Integrated Evaluation Report. See also the Comparative Health Outcomes Analysis Report.

SURVIVORSHIP AND PALLIATIVE CARE COMPONENT

- At some sites, the proportion of patients who reported receipt of a written treatment summary increased significantly.
- Half of the sites increased the frequency of routine screening for psychosocial distress.
- Many sites made progress in providing educational programs to clinical professionals, but accomplishments were limited because of lack of physician engagement and staffing needs.

For details on these findings, see Chapter 14 of the Integrated Evaluation Report.

OVERALL PROGRAM

- Program initiation at the sites took more time than expected because of the complexity of NCCCP and the adaptation and integration of each program component to their respective hospital's structure and processes.
- The NCCCP network, with NCI guidance, provided important collaborative learning opportunities.
- Sites leveraged a high level of matching funds for NCCCP implementation, investing \$3.74 for every \$1 of NCI funding received.
- Quality improvement partnerships with national organizations (e.g., American College of Surgeons-Commission on Cancer, American Society of Clinical Oncology) were established.
- Involving private practice physicians was an ongoing challenge. However, sites established stronger relationships with their key cancer physicians through multidisciplinary care conferences.
- All sites worked with the NCI and the NCCCP network to develop and use assessment tools that enabled them to monitor progress in program implementation (<http://ncccp.cancer.gov/about/reports-and-tools.htm>).
- Leadership and staff at all levels expressed the belief that a few components of the NCCCP (i.e., clinical trials, quality of care, information technology) would certainly be continued, even without federal funding, but that others (i.e., disparities, biospecimens) would be far less likely to survive a lack of external funding.

For details on these findings, see Chapters 15-17 of the Integrated Evaluation Report.

What organizational characteristics seem important to effectively manage and implement the NCCCP?

- Engagement and active support, such as allocation of funding from top management at sites (e.g., Chief Executive Officer, Chief Operating Officer).
- Distinct cancer service line or structure that enabled faster integration of NCCCP activities into the organizational process.
- Strong physician leadership of the cancer program.
- Direct reporting relationships between sites' physician directors of cancer programs and their top management.
- Dedicated program coordinator to implement NCCCP.
- Physicians willing to serve in the role of "champion" for key program components, such as initiation of new multidisciplinary care conferences.
- Dedicated outreach personnel to establish or maintain relationships with community groups and organizations (e.g., hospices).

For details on these findings, see Chapters 14 and 16 of the Integrated Evaluation Report.

What changes and elements are sustainable and/or potentially replicable in other community hospitals?

Sustainability

- Enhancing clinical trials infrastructure and capacity.
- Pursuing quality of care initiatives (e.g., Rapid Quality Reporting System, Quality Oncology Practice Initiative).
- Integrating hospital and private practice physician medical record systems.
- Maintaining current survivorship and palliative care services.

For details on these findings, see Chapters 14 and 16 of the Integrated Evaluation Report.

Replicability

- Health care systems or individual hospitals are more likely to be able to replicate NCCCP if they:
 - have a potential competitive advantage;
 - are willing to invest in their cancer program activities and infrastructures, such as outreach workers; and
 - have an established role in the community as an institution with a strong social mission and a healthy, stable financial position.

For details on these findings, see the Economic Evaluation Report.

Evaluation Conclusions

Based on the evaluation findings, RTI derived a number of conclusions about the NCCCP pilot program that relate to the NCCCP model itself and to the organizational characteristics of this heterogeneous sample of community hospitals.

Conclusions related to the NCCCP model

- Establishing a public-private partnership between NCI and the participating hospitals influenced all aspects of program development and implementation.
- The NCCCP enhanced cancer research capacity within community cancer centers.
- The nature of the NCCCP model required sites to invest significant time to begin the program and set goal priorities during the adoption and implementation stages.
- Sustainability for pilot NCCCP sites will depend on maintaining a meaningful connection to the NCI beyond the formal funding period, through either continued communication or branding as an NCI partner.

Conclusions related to organizational characteristics of participating hospitals

- Support from senior executive leadership was critical to successful program implementation.
- NCCCP activities required physician engagement to ensure adoption of quality improvement activities.
- NCCCP activities required that a variety of provider specialists work together to ensure clinical care coordination.
- Communication and coordination across program components facilitated NCCCP accomplishments.

Even with the environmental context of the economic downturn in 2008 occurring during the pilot and uncertainty with regard to health care reform, the participating hospitals seemed to have embraced the opportunity to be part of a new initiative with NCI and to do what was necessary to bring their hospitals' patient care to a higher level. RTI findings indicate that hospitals effectively leveraged the resources provided by NCI to enhance their cancer research capacity, improve their quality of care for key indicators of breast and colon cancer treatment, establish stronger relationships with their key cancer physicians, and implement new initiatives that they may have otherwise not have known about.

In summary, the evaluation of the NCCCP pilot program found that this public-private partnership helped community hospitals enhance their capacity to provide state-of-the-art cancer care in several respects, especially involvement in clinical trials research.

Learn More

Visit the NCCCP website at <http://ncccp.cancer.gov/index.htm>.

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