

ARTICLE

Design principles for high-performing cancer networks

5 best practices from leading cancer centers

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Health systems have long recognized the benefits associated with creating ambulatory scale for patient cost and convenience. Traditional approaches to scaling the ambulatory enterprise have relied heavily on acquisitive growth and development of “big box” ambulatory sites, which, like their namesake, include a little bit of everything. Yet as healthcare consumers have developed new expectations and a more sophisticated understanding of their disease, a more thoughtful approach to network planning has been required of clinical service lines. Nowhere is this more true than in the constellation of assets, programs, and people that constitutes a cancer network.

Designing a High-Performing Cancer Network is Complex.

The complexity of cancer networks is a function of two things: (1) the practical requirements of the disease and its patient population, and (2) the reality that programs are often optimizing, not designing new models of care.

The practical requirements of cancer begin with acknowledging its dozens of sub-types, each with a unique entry point into the health system and cascade of interventions. Cancer is multi-modal and multidisciplinary, meaning networks stitch together a patchwork of diagnosing and treating providers, health records, and capital-intensive centers to produce the “episode” of cancer care. Cancer patients, frequently older and with multiple comorbidities, endure months of provider encounters and serial procedural, systemic, and radiation-based therapy during these episodes.

The second complexity of network design is that most health systems — community and academic — have either inherited a set of cancer network assets through merger and acquisition (M&A), or organically assembled a set of assets that no longer align with their strategies or market conditions. Consequently, network design is often an exercise in rationalization and optimization of legacy infrastructure and partnerships, absent the degrees of freedom in greenfield planning.

Despite these Complexities, Best Practices Abound in the Cancer World.

Whether your cancer network is newly emerging, assembled through recent M&A, or in need of a refresh in the marketplace, the following five best practices are instructive for how to conceptualize and execute on a contemporary cancer network design.



Best Practice



Evaluate Service Distribution Strategy.

Distribution of cancer services is the cornerstone of network design. Our evaluation begins with the oncology market — including its measures of need, relative fragmentation or consolidation, and the geography served by the cancer network. With these inputs, programs can tackle the more challenging questions, such as: where to provide basic, medium-complexity, and high-acuity cancer care; how to balance centralized/highly sub-specialized environments versus decentralized/generalist sites of care; and how to optimally locate high-frequency services like chemotherapy and radiotherapy.

Parameter	Key Evaluation
Demand Sizing	Understand incidence, prevalence, projected utilization, and evolution in standard of care (e.g., hypofractionation in RT).
Geographic Positioning	Study patient origin, market density, and drive times to network assets for high-frequency services like infusion and radiation.
Retention Performance	Utilize tumor registry to assess retention by disease and sub-market for post-diagnosis and post-surgical outmigration.
Site Interconnectivity	Profile capabilities of your sites to move away from hub-and-spoke delivery and create a constellation for multi-site treatment.

CHARTIS SPOTLIGHT: A Regional Cancer Network

In 2014, our client launched a cancer care network across its regional footprint, organizing a system-wide cancer care model that covers more than 70 percent of the patients in its state. The network was designed around tertiary/quaternary services in the capital city, with additional complex procedural work in nearby tertiary hospitals. It was also supported by nearly a dozen other ambulatory sites optimized for rural access to infusion and radiation therapy. As the network has grown, the health system and its network affiliates continuously reassess the network model to ensure the state has access to an integrated, multi-site model that delivers cutting-edge and research-oriented cancer care.

Best Practice



Cultivate Network Points of Distinction.

In cancer care, location does not always win the day. We find that in many crowded markets, our clients must find unique ways to differentiate as they extend cancer care off main campuses and into an ambulatory constellation. That distinction can be experience (providing a comprehensive set of supportive services generally unavailable at network sites), specialization (offering access to a disease-specialized surgeon or medical oncologist at multiple locations), or innovation (providing novel drugs through research studies at sites closer to where patients live).

Parameter	Key Evaluation
Differentiation in Market	Assess your access/timeliness, facility appearance, and comprehensiveness of services relative to market alternatives.
Sub-Specialization	Review your programs that are unique in the market and can be extended safely across a multi-site network and create guidelines for where sub-specialized care will/won't occur for each tumor type.
Research Expansion	Study your clinical trial offering and rationalize the study types and support required to extend therapeutic trials beyond your main campus.
Innovation Capability	Sharpen plans to advance your network assets and operating model as clinical and business constructs evolve (e.g., home infusion).

CHARTIS SPOTLIGHT: A Top-5 NCI-Designated Cancer Center

In the early 2000s, our NCI-designated client had launched a regional satellite program built on a generalist model and focused primarily on competing by providing close-to-home convenience. In 2010, the organization launched version 2.0 of its regional strategy. The goal of the second-generation ambulatory network was to bring the multidisciplinary care model that the cancer center

was known for to its suburban customers. To achieve this goal, the organization began recruiting fellowship-trained surgeons to partner with the existing medical and radiation oncologists in the community to serve as the foundation of disease-site-specific, team-based care delivery. The success of this model in breast and gastrointestinal cancers served as the blueprint to expand to other disease-specific programs in thoracic cancers and head and neck cancers, among others.

Best Practice



Deliver Consistency of Outcomes.

The most challenging element of network design is creating consistently exceptional experiences and outcomes in every environment. This challenge is most acute in networks aggregated through merger, with legacy providers, care processes, and operating models. The process of harmonization begins with clinical standards — ensuring every network site follows the same protocols for evidence-based medicine and participates in multi-site tumor boards and peer review. Standardization also extends to service — ensuring patient experience is consistent, frictionless, and timely across the network.

Parameter	Key Evaluation
Clinical Standards	Convene broad representation of disease-oriented, physician-led groups tasked with developing care guidelines and pathways.
Care Model Similarity	Inventory resources at all sites, establish a “baseline service expectation,” and rationalize additional services based on volume.
Team-Based Care	Assess how multidisciplinary clinics and regional sites connect, optimize tumor board outreach, and formalize peer review against guidelines.
Service Standards	Study heterogeneity in care experience by disease site (and location) through patient journey mapping and targeted QI/PI for intake, navigation, care transitions, and survivorship.

CHARTIS SPOTLIGHT: A Multi-State IDN and Cancer Institute

Over a period of five years, our client and its cancer institute expanded from three community sites to more than 25 cancer programs, becoming one of the largest providers in the United States. Though covering a broad geography, these programs were fully harmonized through the deployment of clinical and operational standards across the system. These protocols ensure consistent, evidence-based medicine is practiced at all sites and is supplemented through standard research processes, biospecimen collection, and protocols for patient navigation and supportive oncology services. The result of this expansion and unification is that patients of the cancer institute can receive identical and consistently exceptional care, independent of which location they visit within a 200-mile radius of the main campus.

Best Practice



Optimize Provider Alignment.

Provider enterprise is a key component of cancer network design, as it extends beyond the therapeutic disciplines (surgery, hematology/oncology, and radiation oncology) to a host of physicians involved in the diagnostic and longitudinal care of patients. In this domain, we study how to optimize integration of the upstream screening and diagnostics value chain within the network design; where and how to consider professional service agreements and/or technical service joint ventures to expand market impact; and how to create a sustainable workforce model, given the complexities of multi-site coverage.

Parameter	Key Evaluation
Upstream Alignment	Evaluate where to integrate/co-locate upstream and downstream services to therapeutic modalities (e.g., prevention/high-risk, screening, diagnostics, and APP survivorship clinics).
Cancer Partnership	Assess models (e.g., PSA and joint venture) that can provide alignment in key modalities as an alternative to de novo practices.
Coverage Optimization	Review your coverage model to avoid provider turnover driven by fractional models, windshield time/regional coverage, or imbalanced clinic schedules or rounding requirements.
Break Down Silos	Ensure your regional network cross-pollinates providers, avoiding a “two-tier” culture of main campus versus regional physicians.

CHARTIS SPOTLIGHT: A Metropolitan Cancer Program

Our client has been on a multi-year journey to bring fully integrated, seamless cancer care to a major metropolitan market. In support of this vision, the program recently created three comprehensive cancer centers, each with a specific role and graduated complexity of clinical offerings. These metro sites are interconnected and share hematology/oncology coverage with six additional regional clinics and infusion centers, as well as co-location with comprehensive breast centers and a host of care coordinators and integrative oncology services. After an extensive evaluation process, the health system selected a “build” strategy over the option to align with a local multi-specialty oncology practice and created a fully aligned physician enterprise in support of the network. That network now serves more than 6,000 patients each year and delivers on the promise of highly coordinated and compassionate cancer care.

Best Practice



Ensure Financial Sustainability.

The final element for network design is business architecture and operating efficiency. Developing an ambulatory cancer footprint is capital-intensive and subject to arcane and ever-changing rules related to Centers for Medicare & Medicaid Services (CMS) reimbursement, site-of-service differentials, and licensure requirements for compliance and 340B drug discount access. These dynamics need to be key inputs into network site selection and hospital alignment because they have profound impacts on profitability and the ability to sustain network access for patients and the communities you serve. Sustainability also depends on operating efficiency as regional networks depend on establishing the optimal mix of advanced practice providers (APPs), consolidated clinic days, and central business office functions like scheduling and registration.

Parameter	Key Evaluation
Care Team Leverage	Study your use of RNs and APPs and your model for direct supervision across existing (or contemplated) sites of care, with an eye toward balancing quality and personnel expense.
Business Architecture	Review existing (and future) facility plans to account for site-neutrality and provider-based billing optimization relative to on-campus (250 yard) and off-campus (35 mile) constraints.
340B Drug Discounts	Evaluate licensure of all infusion through disproportionate share hospitals and organize funds flow to account for impact to operating unit financial statements.
Alternative Sites of Care	Quantify exposure to ambulatory infusion mandates and white bagging of drugs and create thoughtful mitigation strategies.

CHARTIS SPOTLIGHT: An Academic Cancer Center

In 2018, our academic medical center (AMC) client decided to reevaluate its site-of-service strategy in radiation and medical oncology. The evaluation looked at the various ways to optimize utilization of provider-based licensure for locations within 35 miles of the main hospital, with the goal of converging on a single operating model and extending the benefit of 340B across all ambulatory cancer sites in the network. The AMC now has a fully integrated model and organizes its four off-campus cancer centers through a single hospital licensure, allowing the organization to optimize its economics and reinvest significantly in improved patient experience, supportive care, and clinical research at these sites.

Best Practices are Essential as the Cancer Care Delivery Landscape is Poised for Dramatic Change.

The next decade will bring tremendous growth in cancer incidence and prevalence, unabated merger and acquisition activity, and profound changes to the cancer care delivery landscape. These forces will require health systems to critically evaluate where they stand against each best practice and the parameters within, using this insight to drive proactive planning and optimization of cancer network design. Leading health systems will leverage this planning as a competitive differentiator to expand reach, grow share, improve margin, and deliver high-value cancer care in convenient, patient-centered settings.

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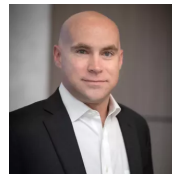
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