

Hammer Time?

Lay the foundation for new cancer center construction with a solid planning process



According to a 2007 survey conducted by Health Facilities Management and the American Society for Healthcare Engineering, the hospital construction boom is still going strong.¹ Survey respondents cite these top reasons for hospital construction:²

- To improve an aging facility
- To improve operational efficiency and patient flow
- To implement technological advances
- To meet consumer-driven demands
- To differentiate services from the competition
- To increase market share.

Current design trends in healthcare construction also aim to increase patient and staff satisfaction and to improve the facility's bottom line by retaining and attracting patients and staff. Patient-friendly design changes might include private spaces and family-centered care. Staff-friendly design might include decentralized nursing stations.¹ While no cancer program wants to be left behind, the following process tips can help ensure your endeavor's success.

Plan Ahead

Any plans for capital construction begin with a strategic plan. Ideally, this plan outlines the vision for your cancer program's course over the next three to five years. Start by determining what you want to accomplish and how construction—whether it's an entirely new cancer center, a renovation, or an addition to existing facilities—will help you reach your goals.

A wide range of programmatic issues can fuel the drive for new construction. Sometimes the construction may be planned to solve a problem. For example, a facility may undergo a complete overhaul because its cancer services are scattered throughout the hospital. Consolidating the cancer service line under one roof or on one or two floors can turn "virtual" cancer centers into "one-stop-shopping" cancer centers. Other programs may find that they have outgrown their small—or poorly-designed—infusion area. Implementing both public and private infusion areas into cancer center design can offer patients more choice. Some cancer centers experience overcrowding across the board, resulting in costly delays in seeing patients. Still other problems may relate to technology, such as aging equipment. For example, a cancer center that needs a new vault for a linear accelerator should consider whether it would be more efficient to simply build out your existing facility or to build a whole new cancer center that could accommodate both medical oncology and radiation oncology.

New construction can also be proactive. Forward-thinking cancer programs incorporate cancer center design into their strategic planning to fill unmet needs in a com-

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munity, to add a new technology, or to respond to increasing patient volumes.

Whatever the reasons for the new construction, the first step—and one that must take place prior to any discussion of dollars, designs, and personnel requirements—is research. The foundation for any significant capital improvement process must rest on up-to-date and accessible data.

Establish Your Team

To carry out this all important research, you must first establish a task force or committee. This task force should encompass a broad group of stakeholders, including those who will be directly affected by the proposed construction. Ideally this task force should include physicians, nurses, administrators, a representative from the foundation (for non-profit facilities), and a member of the finance department. To be effective, these meetings should be all inclusive. In other words, do not schedule a meeting with physicians on one day, nurses and administrators on another day, etc.

This task force should create a SWOT analysis of your cancer program, i.e., an assessment of your program's strengths, weaknesses, opportunities, and threats. Examining strengths and weaknesses is a look inward at your program. Analyzing your program's opportunities and threats is a look outward. In other words: an examination of your service area in the context of your marketplace.

Schedule meetings so that *all* stakeholders can participate and communicate. If disagreements arise, all parties need to be at the table and able to respond. Discussions of these issues can become emotionally charged and difficult for participants to hear. Feelings can be (and often are) hurt. Consider bringing in a third-party facilitator so that the discussion remains focused on the issues. Fault finding should *never* be a part of the SWOT analysis process.

Once your task force has accurately defined the cancer program's strengths and weaknesses, it can begin gathering the data needed to accurately describe opportunities and threats. This step of the strategic planning process generally requires more time and effort. And, because these projections tend to be more speculative, your task force should be prepared to back its assertions with research, facts, and data. In other words, unless a competing hospital issues a press release about building a new cancer center, a task force cannot know for sure that the competitor is planning construction across the street.

Know Your Patient Population

Planning for your cancer center must start with understanding some basic facts about your patient population. For example, your task force must know if the cancer center's patient volumes are growing or declining. The group

Floor Plan of McCreery Cancer Center at Ottumwa Regional Health Center



should also be able to identify the leading cancer sites and if these volumes are increasing or declining. The task force must understand the demographics of the cancer center's patient population. Start by examining your payer mix. Is the percentage of cancer patients older than age 40 increasing or decreasing? What percentage of your cancer patients is covered by Medicare, Medicaid, and/or third party payers? What percentage of your patient population is uninsured or under-insured? What percentage of your cancer patients is employed, unemployed, and/or retired?

Your tumor registry is an important source of information about your patients. All cancer patients identified in the pathology department or radiology department are recorded by the tumor registrar. The tumor registry then classifies and follows patients in the following categories:

- Class 0: Patients identified at your facility, but who have gone elsewhere for treatment. For strategic planning purposes, these patients are categorized as "lost patients."
- Class 1: Patients identified at your facility, and who continue to receive treatment at your cancer center or from one of your medical staff. For strategic planning purposes, these patients are categorized as "kept patients."
- Class 2: Patients who were identified elsewhere, but who have come to your facility or medical staff for treatment. For strategic planning purposes, these patients are categorized as "gained patients."
- Class 3: Patients whose cancer was diagnosed and treated elsewhere, but who are now being treated at your facility or by your medical staff for a non-cancerous diagnosis (e.g., pneumonia, heart attack, auto

accident, etc.). These patients are only considered as “gained patients” if their cancer care is now assumed by the hospital medical staff.

Know Your Market

The next step is an in-depth review of both your facility and your marketplace. Again, your tumor registry is an important source of information about how your cancer program is performing in the marketplace.

Your task force should use the information it gathers to assess how your program is performing in its service area in terms of number of cancer patients and total service area population. For example, if your service area has seen increases of cancer incidence, the task force should identify if its cancer program has experienced corresponding increases in patient volumes. If the cancer incidence is on the rise, but cancer center volumes have not increased, the task force should research *where* these patients are going for care.

Assessing marketplace competition is an important step in refining your strategic plan. Look to the future and identify how your cancer center can become a competitive alternative for patients. If your marketplace includes university-affiliated medical centers or other nationally known programs, the task force may recommend against competing head-to-head in all service areas and instead propose an approach that would showcase how your cancer center is able to fulfill niche services better than your competitors. For example, your program may have a radiation oncologist and urologist who focus on prostate care using current technology, highlighting individual personal care. Another example might be a breast center that includes a breast surgeon, radiologist, and medical oncologist. Again, focusing on market campaigns emphasizing individualized, personal, and timely care for each patient.

“Selling” Your Strategic Plan

At this stage, your task force should have an idea of what it wants to build and why. The next step is to garner support for the proposed construction project.

The cancer program administrator often becomes the point person for the project, assuming the responsibilities of meeting with numerous audiences to “sell” the construction project; however, the ongoing support of the oncology medical director and oncology nursing supervisor is critical. If possible, these team members should attend meetings with the cancer program administrator. For example, having a medical oncologist in attendance at these meetings can help the administrator address any technical medical questions that may come up. The presence of the oncology medical director also serves as a concrete demonstration of medical staff support for the project, reinforcing that the proposal is not merely a “business” project seeking additional income.

Money Talks

A critical component of your proposal is cost and income projections. While the task force should emphasize that any cost projections are preliminary and subject to decisions that have yet to be made, a “ballpark” estimate of the size of the proposed project must be developed and shared with key decision makers. This estimate is very different from the *pro forma* that your task force will develop later.

Cost and income projections for a new cancer center can be presented as a range, i.e., the proposed construction is

estimated to be between \$6 to \$10 million, with a projected positive revenue stream expected within two to three years. Both program costs and reimbursement levels will fluctuate between the groundbreaking ceremony and the treatment of the first patient. The same is true of construction costs for materials and labor, which can change rapidly and without warning. Broad-based projections of proposal costs give cancer center leadership the opportunity to consider:

- Philanthropy opportunities
- The availability of capital
- Potential cost-sharing opportunities
- Political alignments (benefits and hazards).

Develop a Pro Forma

Once the decision makers have signed off on the initial proposal and cost and income projections, your task force must now create a *pro forma*. This document is an accurate breakdown of the construction start-up costs, and a preliminary breakdown (or estimate) of what expenses and income will be over the first few years post-construction.

When gathering information to prepare the *pro forma*, strive to be all inclusive and realistic. Costs include new construction or building renovation costs, new equipment costs, and costs of adding or re-training staff. Do not try to shave items simply to gain support. For example, the latest linear accelerator equipped for image-guided radiation therapy (IGRT) can cost as much as \$4 to \$5 million, depending on your facility’s purchasing power and relationship with the manufacturer. When estimating the cost of adding this technology to your program, you must also factor in the cost of support equipment including:

- A CT planning simulator
- Vac-Locs for patients
- Physics support equipment
- Blanket warmers, blankets, and gowns for patient comfort
- Support computers and software
- Additional staffing, if necessary.

On the medical oncology side, new construction expenses can include:

- Chemotherapy treatment chairs that will meet both the patient and staff needs
- IV poles and fluid pumps
- Mixing hood(s)
- Entertainment facilities for patients who may be in the treatment chair for as long as 6 hours
- Basic laboratory equipment for cell counts
- Phlebotomy chair(s).

The above lists are not intended to be all inclusive, but to demonstrate the range of costs that can be associated with cancer center construction or renovation.

Balanced against these costs, your proposal should include a review of revenue opportunities resulting from the construction project. For example, you may estimate the number of patients that will be seen and/or treated, as well as the estimated charges and resultant revenue associated with these patients.

The sample *pro forma* (Table 1, page 25) spans five years and shows projected progressive yearly increases in net revenue (as volumes rise and fixed costs are spread over time).

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Table 1: Five-year Pro Forma

	Investment	Year 1	Year 2	Year 3	Year 4	Year 5	5-year Total
Gross Patient Services Revenue							
Radiation technical component		\$6,121,542	\$6,427,619	\$6,749,000	\$7,086,450	\$7,440,772	\$33,825,383
Radiation professional component		-	-	-	-	-	-
Less deductions from revenue		\$1,836,463	\$1,928,286	\$2,024,700	\$2,125,935	\$2,232,232	\$10,147,615
Net Patient Service Revenue		\$4,285,079	\$4,499,333	\$4,724,300	\$4,960,515	\$5,208,540	\$23,677,768
Salaries, Wages, and Benefits							
Non-physician staff		\$1,337,810	\$1,391,322	\$1,433,062	\$1,476,054	\$1,520,336	\$7,158,583
Benefits		\$267,562	\$278,264	\$286,612	\$295,211	\$304,067	\$1,431,717
Direct Expenses							
Variable expense		\$360,000	\$374,400	\$389,375	\$404,951	\$421,149	\$1,949,875
Fixed expense		\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$750,000
Maintenance contracts		\$0	\$200,000	\$200,000	\$200,000	\$200,000	\$800,000
Marketing		\$125,000	\$120,000	\$115,000	\$110,000	\$100,000	\$570,000
Less depreciation		\$1,714,286	\$1,714,286	\$1,714,286	\$1,714,286	\$1,714,286	\$8,571,430
Total Direct Expenses		\$3,954,658	\$4,228,272	\$4,288,335	\$4,350,502	\$4,409,838	\$21,231,605
NET INCOME		\$330,421	\$271,061	\$435,965	\$610,013	\$798,703	\$2,446,163
Cash flow adjustments							
Plus: Depreciation		\$1,714,286	\$1,714,286	\$1,714,286	\$1,714,286	\$1,714,286	\$8,571,430
Less: Capital equipment	\$12,000,000						
Less: Initial drug stock	-						
Net Cash Flow	(\$12,000,000)	\$2,044,707	\$1,985,347	\$2,150,251	\$2,324,299	\$2,512,989	
Total Cash Per Year							

Over the years, the *pro forma's* projections may become less accurate as various inflation and reimbursement assumptions become less certain. However, the *pro forma* is the basis for the business plan and usually is the pivot point for the governing body that decides if the project merits the investment of the facility's capital dollars. While a full discussion on creating a *pro forma* is outside the scope of this article, the *pro forma* is a critical component in garnering support for your new construction project.

Talk to the C-Suite

With your *pro forma* complete, the next step is "selling" your proposal to your facility's governing body. Keep in mind that your facility's leaders—the CEO, CFO, and COO—have to maintain a broad grasp of knowledge; however, they may have little knowledge about specific pieces of new technology. Because these individuals work with your facility's governing body, you should provide them with the information they need to fully understand the benefits of your proposal. Remember, these hospital leaders are busy, so you need to make your case as simply and succinctly as possible, avoiding technical jargon. You must be thoroughly prepared to discuss the treatment process, patient flow, and any other aspect of your program that may crop up—in language your C-suite will understand.

Ensure that you leverage the expertise of your staff during these talks. In other words, the cancer program administrator; the medical, surgical, and radiation oncologist; the oncology nurse; the physicist or dosimetrist; and other staff may offer expert insight into the proposal. To

successfully bring your project to completion, you must demonstrate that expertise over and over again in your discussions with stakeholders, administrators, governing body members, and co-workers. You are not only "selling" the project in the board room; your project needs to be sold in the hallway as well. Clearly communicate your proposal's benefits for the facility, the staff, the patients, and the community.

In the end, the key to successfully communicating with your C-suite is to be factual and unemotional. While some emotion is attached to almost every healthcare decision, successful leaders must rely solely on the facts to make decisions that will benefit the facility as a whole. Your task force must be able to truthfully provide those facts—all of the facts—whether they support your position or not. Successful cancer center design and construction is built on open communication and trust between stakeholders and decision makers. Without that base, your cancer program risks building on a damaged or fractured foundation. ■

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References

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