



# WIPFLI HEALTHCARE PERSPECTIVE

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## Minimizing Construction Risk for Hospitals

Health care is currently experiencing unprecedented levels of demand. The baby boomer population bubble continues to age, patient acuity is increasing, and health care utilization rates are rising across the country. Demand for health care services has outpaced facility capacity in many markets, resulting in full inpatient units, overflowing emergency departments, and over-capacity radiology departments. Capacity is not the only issue; the physical age of many hospitals and medical office buildings is approaching or has exceeded its expiration date. Add into the mix an ever-growing patient demand for increased service lines and new technologies, and you have the foundation for an unprecedented level of need for services and facility development across the country.

This unprecedented level of demand throughout the health care industry is fueling a construction “boom” of massive proportions. Over the past four years, a total of \$130 billion was spent on health care construction. In 2006 alone, health care construction dollars hit an all-time high of \$40.2 billion, a 43% jump since 2002. Hospitals that are spending capital on facilities cite the following reasons as the primary drivers for their need for renovation and construction:

- Increasing number of private inpatient beds
- Expanding overall capacity
- Adding new service lines
- Fixing infrastructure and other age-related issues

With so many health care organizations either considering construction or in the midst of a building project, demand for construction services/materials has outpaced supply. Health care organizations nationwide are competing against each other for limited materials and skilled labor required for specialized health care construction (consultants, architects, construction managers, engineers, contractors). This competition

for limited resources has driven the cost per square foot of new health care construction to an all-time high. It is now more important than ever for hospitals to plan their construction projects appropriately to minimize risk and ensure capital dollars provide the greatest return on investment.

Despite this unprecedented level of construction, shrinking reimbursement rates and growth in expenses have made it increasingly difficult for hospitals to maintain acceptable margins. Many hospitals either do not have the capital to make the appropriate investments in their facility, or they spend their capital unwisely. Countless millions of dollars are invested in facilities as a “knee jerk” response to the market or to put out immediate facility-related “fires.” Rarely, however, can these facility changes be made without impacting other hospital departments. Most facility development projects set off a complex waterfall of internal/external space shifting/phasing, which (depending on the level of planning) can have both positive and negative implications. Facility investment decisions that are made without appropriate planning and consideration of long-term implications can handicap a hospital and surrounding site for decades. In contrast, facility development that is planned appropriately will provide flexibility and benefit for the long term.

Organizations that have been forced to defer construction projects for long periods of time due to lack of capital often have a strong sense of urgency to “get in the ground” quickly. While this urgency to complete construction is certainly understandable, it often leads to hasty decision making, which ultimately puts the hospital at a greater risk for negative outcomes related to their construction projects. The remainder of this article focuses on several steps/tactics hospitals should consider employing in order to mitigate risk and ultimately better prepare themselves to successfully plan a major construction project.

## Exhaust All Alternatives Before Turning to Facility Solutions

There has been strong evidence supporting the notion that new facilities (especially replacement facilities) have a positive impact on market share, revenue, and staffing expense. It is dangerous, however, to assume most organizational issues/challenges can be resolved with a costly facility response. As an example, a small community hospital was struggling with stagnant market share and volumes. To address these concerns, the hospital made the decision to close its Obstetrics unit (which was underutilized) and convert the vacated space into a clinic for visiting specialty physicians. This solution required only minimal facility renovations and resulted in the hospital growing their inpatient market share by four percentage points in a single year. Facility solutions should serve as a “last resort” as they are virtually always the most expensive pathway to take.

## Know Your Market and Build to Its Needs

Every successful building project needs to begin with a comprehensive market analysis to articulate the needs of the service area and appropriately plan the facility around those needs. Hospitals that reside in service areas with a disproportionately larger percentage of older age patients (65+) need to plan differently than hospitals serving a younger population base. Older patients typically utilize health care services at a much higher rate than younger patients. In addition, older patients typically have more acute health care concerns, which impact length of stay as well as service-line offerings. Hospitals must successfully plan for their specific population base and the unique needs associated with their service area.

## Do Not Be Overly Aggressive in Growth Assumptions

As discussed previously, health care is in the midst of a utilization “boom.” When planning for future facilities, hospitals have a tendency to plan aggressively towards higher utilization, improved market share, and ultimately significant volume growth. This tendency is driven primarily by the fact the hospital has been undersized for so long that the last thing the organization wants to do is “under build” and be at capacity on opening day. Hospitals should be cautious about looking to the future through glasses that are too “rosy” however. Many financing sources will expect hospitals to perform a detailed financial feasibility analysis, including future volume and revenue projections. If the hospital is too aggressive in

its future assumptions and does not ultimately meet these goals, there could be negative financial consequences that could ultimately jeopardize the hospital bonds.

## Talk to Your People

It is impossible to begin planning for the future needs of your facility without first understanding what you have today and the issues related to the existing space. The first step in developing a list of facility issues to be addressed is to perform detailed interviews with key users of the department in question (physicians, administration, managers, and other key users/drivers of space). These interviews should be focused on understanding qualitative opinion about the physical space and the issues currently impacting the department. Data and quantitative information reveal only a limited perspective; personal interviews provide the opportunity to collect significant qualitative information regarding both strategic and facility issues.

## Prioritize Needs and Address the Highest-Priority Areas First

Hospitals with a long list of facility issues to resolve often make the mistake of trying to resolve all their issues in one fell swoop, often taking on too much in a single project. Ironically, failing to prioritize and taking on more projects than can be appropriately managed usually result in the organization failing to resolve any of its issues. In order to effectively prioritize projects, facility issues/needs should be categorized into short-, medium-, and long-term priorities. Short-term issues impact the hospital today and require immediate attention (existing code violations, patient safety issues); medium-term issues will impact the hospital within three to five years; and long-term issues require resolution in seven to ten years. The prioritization of needs ensures that facility issues are resolved along a critical pathway and that the most urgent needs are resolved before less pressing ones.

## Maximize Utilization and Flexibility of Space

Health care utilization is often unpredictable. It is, therefore, extremely important to build a facility that is flexible and able to adapt to changes in the market. For example, it is extremely difficult to predict the precise number of Emergency Department (ED) exam rooms that will be required on a day-to-day basis. It is difficult to justify building exam room capacity for the highest-peak periods, but at the same time, hospitals do not want to treat patients in hallways

because there are no exam rooms available. The ideal compromise is to design the ED so when volumes do spike, there is an adjacent “overflow” area that can be used to handle these peak volumes. A good candidate may be a surgical prep/recovery zone or an outpatient oncology area. These departments are typically open only during the day and closed during ED peak periods (in the evening). Building in this type of flexibility allows hospitals to ensure adequate capacity while maximizing utilization of space and resources.

## Rely on Quantitative Drivers to Size Your Facility

Staff and physicians tend to remember only the time when their department was at or over capacity. If a facility were planned based solely upon perception and qualitative opinion, it would most likely be significantly oversized. In order to effectively plan for facility growth, it is imperative that quantitative drivers (volumes, patients, cases) serve as the foundation for planning. Translation of projected volumes into key room counts, or “right sizing,” is an art that requires significant planning and operational experience. The translation methodology must not only ensure the correct quantity of rooms, but also promote efficient operations at an acceptable occupancy rate. Significant experience in working “in the trenches” with physicians and staff is important to understand the impact of operating implications on room projections. For example, the presence of an effective pre-admission program can have a dramatic impact on the need for prep/recovery rooms in surgery. An effective preadmission program can reduce the amount of time required for pre-procedural tasks and thus reduce need for prep/recovery rooms and associated space. In contrast, a hospital without effective preadmission protocols will require more prep/recovery rooms as more time will be spent completing pre-operative procedures. Facility

development must be built on efficient operating protocols tailored to the unique operating conditions of the hospital and never simple “black box” answers.

## Understand the Latest Design Trends

Health care is currently a “hotbed” for innovation in facility design. Hospitals across the country are beginning to implement concepts such as “healing environments” and “patient safe design” in an effort to improve outcomes as well as gain an edge amongst their competitors. Many of the current health care design trends (such as same-handed patient room design) are so new that there is no significant statistical evidence proving or disproving their impact on outcomes and patient safety. Many hospitals, however, are taking a leap of faith and implementing these cutting-edge design trends because they make intuitive sense and can only serve to benefit the patient. However, many of these latest design trends have increased costs associated with them, and it is important that hospitals weigh the cost/benefit of these trends before moving forward into implementation.

## Concluding Remarks

Hospitals have only a small margin of error when performing major construction and replacement projects. A single mistake in planning or oversight in project management may be enough to send a construction job into a tailspin that costs millions to resolve. When planning for the development of new facilities, hospitals must dedicate appropriate time for planning and decision making before any shovel is put to the ground. The planning should be grounded in the key foundations and issues described in this article. This will ensure facility investment decisions are sound and will provide the most value into the future.

John's experience spans a wide breadth of hospital and ambulatory settings, ranging from large academic hospitals and integrated delivery systems to small regional hospitals. Combining this experience with strong analytical skills and a solid understanding of efficient health care operations/design enables John to quickly and competently match clinical/business needs with effective, creative solutions.



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