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Business and Architecture: New Directions for Rural & Small Hospitals

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This article addresses three case studies that outline the changes occurring within the small and rural hospital community. These changes represent "business driven" planning decisions that were based on both financial and asset related planning scenarios. Salient factors outlined in the article include:

1. Current trends in type of care indicate growth in outpatient care relative to traditional care.
2. There is a shift in the level and variety of care for the elderly and long term disabled, including a "continuum of care" to meet various levels of need.
3. The major emphasis of healthcare dynamics is now cost-drive, and is the primary basis for healthcare organization's responses to managed care potential government cutbacks of Medicare and Medicaid.
4. Demographics are changing. Expectations are rising. Consumers are more educated and "choosy."
5. Short stay and Outpatient Clinics are expected to be as sophisticated and thorough as the former longer stays of traditional medicine. The trend is toward the advanced, high technology Outpatient Clinic, including the specialty clinic, such as cancer centers.
6. Cost and functional requirements drive facility solutions. Facility changes are often the last resort in the mix of solutions to the problems of shrinking market share, reduced patient and indemnified revenues, and rising costs.

The article identifies and interactive and consensus building process with the full team of planners, architects and owners making business decisions based on the return on investment (ROI) factors. In addition, creative facility planning uses existing assets wisely, renovates remote facilities converted from other functions and offers suggestions for downscaling and demolishing existing obsolete buildings. Many of the smaller facilities have outlived their useful lives. The case studies include quotes from interviews with the clients who discuss the pros/cons of their planning and design process.

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Rural and small hospitals are undergoing the dynamics of change in the healthcare industry that parallel - but do not precisely match - the trends of large hospitals in the major cities. These hospitals face the problem of limited resources which are less of an obstacle for large city hospitals that have a substantial patient population. This study will review three rural hospitals you order, to explore the dynamics of facility change integral to strategies for the improvement of quality care and market share. Although often the last resort physical changes can be one of the most dynamic solutions toward improving quality of care, market share, controlling costs, and increasing revenues.

More than ever, business factors determine decisions regarding facilities. Among the many business changes in the healthcare industry, we are aware of certain salient factors:

1. Current trends in type of care indicate growth in outpatient care relative to traditional care.
2. There is a shift in the level and variety of care for the elderly and long term disabled, including a "continuum of care" to meet various levels of need.
3. The major emphasis of healthcare dynamics is now cost-driven, and is the primary basis for healthcare organizations' responses to managed care and potential government cutbacks of Medicare and Medicaid.
4. Demographics are changing. Expectations are rising. Consumers are more educated and "choosy".
5. Short Stay and Outpatient Clinics are expected to be as sophisticated and thorough as the former longer stays of traditional medicine. The trend is toward the advanced, high technology Outpatient Clinic, including the specialty clinic, such as cancer centers.
6. Facility solutions are driven by cost and functional requirements. Facility changes are often the last resort in the mix of solutions to the problems of shrinking market share, reduced patient and indemnified revenues, and rising costs.

The facility changes are of primary concern to architects and planners who serve the healthcare industry. Although often the last resort at rural and small hospitals, the physical changes can be one of the most dynamic solutions toward improving quality of care and market share, controlling costs, and increasing revenues, as the following cases demonstrate.

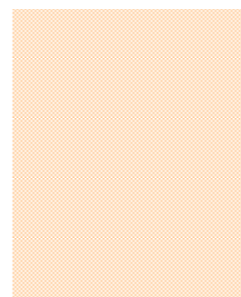
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Facility planning, design and development cannot be divorced from the business of the hospital. An integral relationship exists between the many business strategies and effective facility strategies in the cases below, and in the general discussion that follows.

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Case Study 1: **Webster General Hospital, Eupora, Mississippi** *Master Planning a Proposed Replacement Facility*

Webster General Hospital (WGH) is a county hospital built in 1962, and has a patient service population of about 30,000 persons in Webster County and portions of contiguous counties.

In 1992, the Webster County Board of Supervisors signed a 50 year lease agreement with the North Mississippi Health System (NMHS) of Tupelo that gave the health system responsibility for the operation of the hospital. The agreement has been successful for both parties. WGH can now afford to fund the capital outlays for a phased hospital replacement on the original site. NMHS has broadened its service area and further established its network of referrals.

The major building issue at WGH is the age of the facility. The Acute Care wing was built in 1962 with the original hospital, with additions made in 1970 and 1980. A Long Term Care wing was built in 1972. The last major renovation occurred in 1980 in the specific areas of ER, Medical Records, the Laboratory, and part of the Administrative suites. The patient occupancy areas of Long Term and Acute Care are badly in need of renovation.

Since NMHS began managing WGH, it has acquired adjacent properties to consolidate the site. One adjacent building site is leased: the Dialysis facility. NMHS also built the Family Medical Clinic building. Other free standing facilities on the site include the Home Care building, Child Care building and the Wellness and Outpatient Rehabilitation Center building.

The major site issue with the hospital replacement will be the topography of the site and accom-modating the free standing facilities, while building a new hospital.

**"The quality of care at WGH is excellent.
It can only get better with improvements
in the environment."**

The phased replacement is estimated at \$9 million to complete, and will replace all main hospital program areas, including ER, Surgery, Radiology, Laboratories, Pharmacy, Acute Care, Long Term Care, Administration and various major support service depart-ments. Acute Care and Long Term Care are the inpatient programs, with the 33-bed Long Term Care at 100% Capacity, and the 43-bed Acute Care wing currently with an average daily census at about 50% capacity. "The quality of care at WGH is excellent," says Bruce Ridgway, Vice President of NMHS Facilities. "It can only get better with improvements in the environment."

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The initiative for change occurred through dialog with physicians, the medical staff and the patient base. Patient surveys were compiled via telephone interviews conducted by a professional polling consultant. The issues of patient and staff concern helped to drive the planning process.

Architectural programming was performed through interviews conducted by Easter and Mason Healthcare Consulting Corporation, the architectural programming and planning consultant. The next step will be the master plan, the process to determine adjacencies, operational flow, traffic, space details and the hundreds of departmental needs that will specify the building and site design that lies ahead.

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Case Study 2:

Brozosport Memorial Hospital, Lake Jackson, Texas

Investing in an Outpatient Cancer Clinic and Medical Equipment for Programs

Brazosport Memorial Hospital of Lake Jackson, Texas, invested in facility improvements, new medical equipment, and a free standing cancer clinic building to maintain high standards of care and develop a new outpatient cancer care program. The effort has contributed to the hospital's public image as an excellent community hospital, and has paid off in patient revenues and financial stability.

Lake Jackson, Texas, is the largest of nine small towns on the upper Texas Gulf Coast known as the Brazosport region. Built in 1984, the hospital serves a population market in the nine towns of approximately 90,000 people, with a secondary market population of about 20,000 persons from outlying areas that are likely to bypass either local hospitals or Houston hospitals to receive specialty care at Brazosport Memorial.

"The three major factors for excellence are the facility, the equipment and the medical staff."

The hospital's largest programs include Inpatient Acute Care (especially Medical, Surgical and Obstetrics), Emergency Room, Skilled Nursing and Inpatient Rehabilitation. Several years ago the hospital leadership noticed that a significant number of adult cancer patients in the Brazosport area were going to large hospitals in the Texas Medical Center in Houston (60 to 80 miles away) or to the University of Texas Medical Branch at Galveston (40 miles away). Cancer cases of these patients included breast cancer, lung cancer, prostate cancer, colon cancer, and other cancers common to adult or senior patients.

After a market study, the board and hospital executives agreed that sufficient demand and the trend toward advanced outpatient care would support an outpatient cancer clinic at the hospital. The hospital developed a contract with the University of Texas M.D. Anderson Cancer Center (Houston, Texas) to use physicians from M.D. Anderson, while Brazosport would provide clinic services, own and maintain the proposed new facility. The outpatient cancer clinic is called M.D. Anderson Outreach at Brazosport.

In the last eight years, the hospital has either spent or committed about \$26 million for facility improvements and equipment.

It was determined that a free standing facility was a better

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option than an addition to the existing facility. The cancer clinic presents a strong, distinct identity to the public, and supports the work of Dr. Emerardo Falcon, the medical oncologist who started the program at Brazosport Memorial.

Building the clinic as a free standing facility also gave the hospital more flexibility for expansion of the other health services that remain attached to the original hospital. Although it is a free standing, the cancer clinic is located on the hospital campus, and is prominently visible to traffic entering the primary entrance drive to the main hospital. The cancer clinic facility is one story with high ceilings and a covered patient drop-off driveway at its front entrance. The clinic cost \$4 million with half of cost going to radiation oncology equipment, including a barium linear accelerator.

Even though Brazosport is a community hospital in a rural region, its proximity to the prestigious Texas Medical Center requires the highest standards in order to maintain its patient base. "The standard of excellence for Brazosport Memorial Hospital is driven by the Texas Medical Center," says Wes Oswald, the hospital's CEO. "The three major factors for excellence are the facility, the equipment, and the medical staff."

In the last eight years, the hospital has either spent or committed about \$26 million for facility improvements and equipment. These expenses include \$4 million for the cancer clinic, \$15 million for equipment (including a CT scan, MRI, new catheterization laboratory, and other items), and \$7 million for the proposed expansion of services. Revenues have been healthy from outpatient care and a daily patient census at about 68 out of 165 licensed beds. About 70% of patient revenues come from Medicare reimbursements. Consequently, funding for facility improvements has been very successful with no loans. Lease-purchase contracts of seven years were arranged for the heavy investment in medical equipment.

Major renovations in the main hospital had been few prior to the current expansion of services. Prior to the current program, the SNU 16-bed facility was renovated, as well as the 14-bed Rehabilitation unit and a 14,000 square-foot free-standing laboratory. The current \$7 million clinical expansion of services includes renovation of same day Surgery bed space, renovation of ER with a doubling of size, a renovation for the new Wound Care program, and a renovation for the new Outpatient Cardiac Rehabilitation area.

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Case Study 3: Madison County Hospital, London, Ohio

A Medical Mall, Plus Master Planning and Re-Engineering the Traditional Hospital

Madison County Hospital (MCH) of London, Ohio, is building a professional Primary Care mall and completing a master plan to update several clinical services in its traditional hospital facility, built in 1961. The Surgery, ER, Acute Care, SNU, Outpatient Clinic, and Obstetrics departments will undergo renovations. MCH plans to expand its outpatient clinical services to meet demand and the trend toward advanced outpatient services. The renovations in the hospital are aimed at expansion of such services in the Outpatient Clinic as a primary target for facility changes.

The renovations in the hospital are aimed at expansion of services in the Outpatient Clinic as a primary target for facility changes.

The hospital renovation project is estimated at \$8.4 million. Funding for hospital renovations will be obtained through the sale of tax exempt hospital revenue bonds. The basis for the renovations, which are badly needed, is an effort to maintain and improve market share of clinical services by modernizing the facilities. Remodeling prior to the current effort was relatively minor. The Obstetrics unit last updated in 1971, an IC unit built several years ago, and Mental Health wing built in 1981.

The average daily census has declined over the years to its present level of approximately 45 bed-patients per day, while the hospital has licensure for 102 beds. The hospital serves a rather tight market population of 40,000 consisting almost entirely of Madison County. Physician referrals are sending some local patients to other hospitals.

To attract more local patients back to their hospital, MCH undertook an ambitious multiple strategy:

- MCH will modernize facilities at the main hospital.
- MCH is currently building a professional mall of Primary Care suites in the northeast sector of the county.
- They have developed some cooperative relationships as a member of two Ohio network organizations.
- They are involved in a cooperative program with James Cancer Hospital, located at Ohio State University in Columbus, that allows referrals from James to MCH's Chemotherapy Outpatient Clinic.
- A Home Health program is being acquired by MCH through the merger with an independent Home Health organization

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located on MCH property.

MCH devoted \$1.2 million of cash reserves to the building of the Darby Professional Mall.

The networks include the Community Hospital Network (CHN - 5 hospitals in the Columbus area) and the Laboratory Network (Labnet) of central Ohio. CHN has formed committees from the member hospitals to optimize JCAHO compliance and key hospital and administrative services, including Information Systems, Purchasing, Biomedical Services, and Home Health. Labnet consists of 17 hospitals that strategize laboratory revenues with insurance carriers that normally tend to pull laboratory service business away from the hospital. MCH devoted \$1.2 million of cash reserves to the building of the Darby Professional Mall, primary care suites located off campus and designed to capture the population growth in the northeast sector of the county. While other hospitals just outside the county have developed doctors centers and surgery centers, MCH plans to develop Primary Care among the constituent population that meets the expected future patient demand.

Currently, the biggest programs by revenue and volume at the hospital are the Laboratories, Radiology and Imaging Services, and the Clinical Cardiovascular program (both inpatient and outpatient). Among these, the Laboratories provide much of the revenue from its multiple services to a broad sector of the county, and beyond. MCH Laboratories provide hospital patient blood analysis, outpatient analysis, private practice blood analysis, independent nursing home blood analysis, and even some veterinary analysis from the various veterinary practices in the county.

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Problems Revealed in the Case Studies

The examples above reveal a lot about the problems faced by rural and small hospitals, as well as some of the specific solutions chosen. Current conditions that are the most common and challenging for small and rural hospitals include:

1. Old facilities - 30, 40 years old or even older. Some are still under a Hill Burton Act loan.
2. Shrinking market share, as the local patient population is attracted by other organizations in the big city or other towns and counties where the service is perceived to be better.
3. Loss of recently trained, updated or specialized MDs and other medical staff. Failure to cultivate new blood due to outdated facilities and poorly funded programs, programs that have reduced service loads, or programs that have even been lost to outside competition.
4. Problematic cash flow that is creating a downward spiral: the lower the revenue, the worse the cash problem, and the harder it is to get more funding to update the facility and the programs.

The rural or small hospital does not have to endure the downward spiral forever, nor is it always necessary to close its doors. Alternatives for rural and small hospitals that have reached a crisis point include:

1. Close the hospital.
2. Merge, or form a joint venture or limited contract with a well funded healthcare system.
3. Attempt innovative ways to win back market share, cultivate new medical staff, and update facilities. (Sometimes the innovative solution may actually involve the merger or joint venture, Item 2 above.)

The architect and planner must consider the hospital's key business indicators and return on investment (ROI).

Innovative solutions might include combinations of strategies that quickly improve the public perception of the hospital. If the facility is outdated and a hindrance to operations, programs, morale and public image, a renovation will bring an instant improvement, both in the reality and the image of the hospital. Funding, however, can be a challenge.

A renovation will bring an instant improvement, both in the reality and the image

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of the hospital.

Some of the funding and marketing solutions may also improve image: success tends to build on itself. With the understanding that the architect as project leader cannot afford to tune out seemingly non-architectural solutions, the following strategies and guidelines are presented for both the hospital leadership and the architect.

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Hospital Guidelines

1. The hospital should develop a strong board dedicated to fund raising and finance. In the non-profit hospital, the board would be given the responsibility to raise funds, including the initiative for raising facility capital. In the for-profit hospital, the board should work with the administration to determine and approve the best financial methods and instruments.
2. At a minimum, develop one specific program at a time that attracts new physicians to the local hospital. The physicians are the key to drawing patients, improving revenues and the reputation of the hospital.
3. Hospital leadership should work with the board to include facility planning and renewal in its long-range strategic plan. Facility renewal should become a part of the hospital culture: expected and budgeted, rather than deferred indefinitely. This would help prevent the common problem of permitting the decay of the structure over many years before anything is done about it.
4. Hospitals should consider partnering with centers of excellence, whether academic or university hospitals in big cities, or other hospitals renowned for excellence in key programs.

The architect as project leader cannot afford to tune out seemingly non-architectural solutions...

The successful initiative to enhance revenues and improve the facility begins with the hospital's own perception of intrinsic worth to the community. The rural or small hospital has a mission to fulfill, and its own niche has value. Large or academic hospitals have a need to expand the sphere of influence in order to promote their mission of excellence in specific programs. Partnering can entail joint venture agreements or less ambitious limited contracts. Small and rural hospitals have partnered with these organ-izations by using telemedicine for surgical procedures, as well as interactive diagnostics. At Brazosport Memorial Hospital's Outpatient Cancer Clinic, the facility and patients are made available to outside medical oncologists.

5. Hospitals might consider partnering with nearby colleges and universities to offer local certification or degree programs for medical paraprofes-sionals. The faculty would train the students who would eventually become employees, or could already be employees in training. For example, such programs have proven successful for paramedic and EMS staff at rural hospitals.

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Architect/Planner/Project Leader Guidelines

1. The architect should pay attention to the above issues and guidelines for the hospital, as well as others that may enhance the hospital's marketing and finance! He may have the opportunity to suggest and encourage strategies that improve the hospital's position and ultimately, empower it to do the project he is recommending. As a consultant outside the internal agenda of the hospital, the architect, project leader or planner has the power of detachment; therefore, his opinion has weight with the board and CEO.
2. The architect and planner must consider the hospital's key business indicators and return on investment (ROI). The hospital will review factors such as average daily census, revenues versus costs, cash flow, patient visits (outpatient and inpatient), and space usage compared to revenues and costs per department. The architect/project leader should be prepared to support his recommendations based on hospital criteria. In fact, he will be respected for aggressively initiating the scrutiny rather than later defending his proposals for facility improve-ments.
3. The architectural leadership should work cooperatively with the hospital board and executives of the hospital. This would involve not only the facility issues, but also an exploration of the financial and business solutions - the big picture - suggested in Item 1.
4. Be conversant with the standard business details of the hospital, department by department. Facility and space needs are driven by functional needs. This fact is the basis for the pre-design disciplines of programming and master planning, which in turn should guide the design process.
5. Match facility change to trends in the industry and local patient demands and demographics.

The programming and master planning process must precede architectural design - a "given" that is not always followed in practice!

This last item is vital to success. The programming and master planning process must precede architectural design -- a "given" that is not always followed in practice! Objective evaluation of needs must be determined, and the planner must work in cooperation with the hospital to produce an effective working document for facility change.

The architectural solution becomes effective to the extent that business solutions are optimized.

Given the limited resources of rural and small hospitals, business

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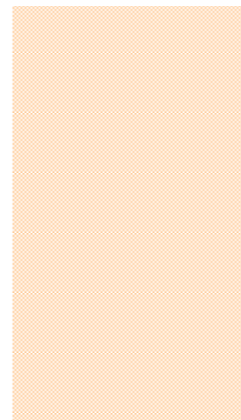
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and architecture are tightly intertwined for successful planning. The big factors of funding, marketing and function will ultimately determine the architectural form that is developed.

In conclusion, the planning done must consider operational and functional strategies in the whole business environment - with architecture as one component. The architectural solution becomes effective to the extent that business solutions are optimized in the areas of marketing, finance, image, expansion of services, and quality of care. 🍷

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