HEALTH CARE
STRATEGIC MANAGEMENT

The Newsletter for Hospital Strategists
Volume 22, Number 1
January 2004

FACILITIES

How trends will affect health care facilities design and construction

By Tracy K. Johnson, CHE, CHC

Many hospitals and health care systems are looking taking a hard look at their facilities to determine whether they will be able to support the future health care needs of their community in the future.

Facility development planning, whether it is replacement, renovation, reconfiguration, or new construction, must give careful consideration to trends in health care delivery that will influence or drive facility requirements and capital projects.

Key industry trends

Key industry trends impacting facility development and design include:

- Growth and aging of the baby boomer population resulting in increased utilization of health care services
- Technological and pharmaceutical advances that will change how and where care is delivered and by whom
- Rise in consumerism and availability of information leading to increasing patient demand for responsive health care and health care environments
- Staff shortages requiring facilities that enhance productivity and are attractive to current and prospective employees
- More stringent building codes and growing regulatory requirements for patient safety and privacy

Implications for facility development, design

As these trends are driving facility renovation and expansion, most health care organizations face other daunting challenges: increasing competition, limited financial resources, reduced access to capital, and continued emphasis on cost control.

More than ever before, facility investments must be made wisely to extend project life cycles, increase operational efficiencies, and improve market position.

Key implications for health care facilities of the future include moving facilities away from dense, institutional, and hard-to-access urban sites to larger, easy to access campuses in growing suburban communities.

Providers should consider developing new acute- care facilities to meet growing inpatient demand as well as outpatient facilities designed to decompress services at urban sites and reach potential new patient populations. Such strategies are sometimes less expensive in terms of costs per square foot and interruptions to operations than trying to retrofit existing aging facilities.

Rationalize services across multi-hospital campuses

Integrated delivery networks will rationalize services across multi-hospital campuses and development of specialty facilities along clinical service lines.

Health care organizations may need to create market distinction and economies of scale through specialty hospitals, "hospitals within a hospital," and centers of excellence.

These approaches cluster a broad continuum of services that may include acute care beds, diagnostic and treatment modalities, outpatient services, and subacute services in one area dedicated to the care of a major service line or patient population (e.g., orthopedics or pediatrics).

More flexible designs

Greater flexibility in the design of space will respond more quickly to changing technology and future health care service development needs.

Universal design gives patient rooms the flexibility needed to accommodate varying levels of patient acuity. The size of patient rooms and clinical workspaces, such as imaging rooms, operating rooms, and exam rooms are getting larger to support changing technology and patient care concepts.

Building large blocks of space with adequate floor-to-floor heights that are easily convertible to different uses and locating soft (e.g., administrative) space adjacent to

Reprinted with permission. ©2004 by THE BUSINESS WORD INC. All rights reserved.
11211 E. Arapahoe Rd., Suite 101 • Centennial, CO 80112-3851 • **800-328-3211** • **www.BusinessWord.com**
© Copyright 2004 by The Business Word Inc. It is illegal under federal copyright law to reproduce, fax or input electronically this publication or any portion of it without the publisher's permission.
For more permission information, see page 2.

clinical/patient care space for future expansion also increases the overall flexibility of facilities.

Improved departmental layout and configuration will enhance patient flow and operational efficiencies. The layout of a department should minimize staffing inefficiencies by enhancing appropriate visibility and access to key staff areas and maximize productivity by streamlining the patient management process.

Improving functional adjacencies between services that interact frequently with each other reduces the length of time needed by staff and patients to move from one service to another and creates opportunities for one-stop shopping patient care areas.

More amenities

Designers will be incorporating amenities expected by a more demanding customer base including patient privacy, supportive healing environments, and conveniently located retail functions.

Offering only private rooms is becoming the standard in many facilities, along with an emphasis on family-centered care. Other amenities include private patient treatment and registration functions in all clinical areas; inclusion of low-tech, high-touch design features (e.g., use of natural materials, softer lighting and colors, healing gardens, etc.) that promote relaxing environments and healing processes; and retail outlets for health-related products and services.

Facility hot spots

As hospitals and health care systems look to reconfigure and expand their facilities, key areas that will feel the greatest effects of these trends are nursing units, emergency departments, surgery, imaging, and ambulatory services.

Nursing units

With inpatient utilization now on the rise, beds are in short supply in many hospitals and regions due to the overall reduction in inpatient capacity in the last decade. More recently, many hospitals are moving toward all private rooms, which increases patient satisfaction, decreases patient transfers, and eases restrictions on room use, but further reduces inpatient capacity in existing units.

Nursing unit design is changing to better support patients and increasingly scarce nursing staff. In addition to more private room capacity, units will be configured for family-centered care, especially in obstetrics, requiring large rooms to accommodate family members overnight and other family support spaces on the unit. Universal room designs and the installation of system-wide monitoring capabilities have garnered much attention recently. These capabilities eliminate patient transfers and ensure that all rooms can accommodate patients with any diagnosis or any acuity level simply by changing staffing ratios and equipment..

Real estate management is part of the hospital CEO's job to maximize property value

Hospital administrators think of themselves as specialists in managing organizations that focus on caring for patients. But they are also real estate managers.

To be most effective, they must manage real estate assets to promote the operational goals of the hospital or health system.

Now a health care real estate management firm has issued a guide to help hospitals do that. "The Lillibridge Guide: Solutions" is a 78-page handbook published by Lillibridge Healthcare Real Estate Trust, Chicago. Spokeswoman Carla Lyons said the company is distributing the guide to hospitals without charge because "we have always taken a leadership role in educating the industry."

One premise of the guide is that while most hospital investments are short-term because of rapidly changing technology, real estate is relatively static. Investments are made for the long term, and then the focus shifts to maintenance of existing properties.

Besides housing patients and caregivers, a use for hospital-owned real estate is leasing to physicians and medical offices.

The guide offers a set of strategic questions and possible answers. They are:

- What purpose will the medical office building of the future serve? Look to your service lines for guidance.
- Our medical offices are full; should we build, buy or lease more space? That depends on long-term service and capital needs.
- What should we do with our empty space? Sale or redevelopment are options.
- Should we allow tenant physicians to perform procedures in their offices that compete with the hospital? You must weigh loss of hospital revenue against the value of physician referrals for other procedures, and the cost of their defection if you limit their practices.
- If we sell an empty building, how can we control its future occupancy and uses? Options are ground leases, air rights, joint ventures and sale covenants.

Another chapter helps administrators decide the answers to such questions as "Do our real estate assets enable us to achieve our long-term goals, or are they a drag on our capital resources?"

© Copyright 2004 by The Business Word Inc. It is illegal under federal copyright law to reproduce, fax or input electronically this publication or any portion of it without the publisher's permission.

Larger patient rooms and all private patient accommodations will increase the distance the nurses have to travel to see fewer patients. Centralized nursing stations are becoming crowded with computer terminals and larger patient care teams that include attending physicians, residents, staff nurses, pharmacists, hospitalists, clinical nurse specialists, and patient care coordinators. Nursing substations serving smaller clusters (2-8 beds) and decentralized support functions help reduce distances between the patient care team and the patients. Bedside charting and handheld devices also reduce the need to congregate around a central nurse station and maximize the care given in the patient room.

Emergency departments

EDs are more crowded than ever and past efforts to divert less urgent patients from the ED have largely fallen by the wayside. The ED is expanding rather than contracting its capabilities and is becoming a major treatment center in addition to its traditional role of triaging, diagnosing, and admitting or releasing patients for follow-up care elsewhere. EDs are now reimbursed for several types of observation patients including chest pain, asthma, and congestive heart failure. Efforts to treat strokes aggressively in the early stages have led to the creation of stroke teams in many EDs. These additional service capabilities require a greater level of ancillary services and facility support within the department.

EDs will get bigger as more (and private) treatment rooms are added to accommodate growing volumes and to ensure that a patient is seen in a timely fashion. Fast-track programs and facilities are being added to treat patients with minor problems more quickly and cost effectively. For high-volume programs, separate treatment areas for fast-track, emergent, observation, and psychiatric patients are often warranted. Smaller programs require a room and unit design that maximizes the flexibility of rooms for a variety of patients. In the future, most EDs will have dedicated imaging facilities, including radiography, CT scanning, and ultrasound, as well as lab satellites to streamline operations and improve ancillary testing and turnaround time.

Surgery

The drive to improve turnaround time and developments in technology including minimally invasive surgery, integrated monitoring systems, inter-operative imaging and robotics are changing the facility needs for surgery. Operating rooms need to get bigger with ceiling mounted and boom operated technology to handle the ever growing amount of equipment and personnel needed to perform surgical procedures. Development of dedicated outpatient OR capacity and related pre- and post-operative areas (with all private rooms) for ambulatory and same day admission patients are changing the overall size, configuration and layout of the perioperative suite.

Invasive procedures are also migrating to places outside the traditional surgical suite including interventional suites in radiology, cardiac catheterization labs (including angioplasties and pacemaker insertions), and women's health centers (including biopsies in multidisciplinary breast centers and less complex gynecologic procedures). Related support space and facility needs to perform more invasive procedures in all these areas are growing as a result.

Imaging

New imaging technologies and applications are expanding the role and facility requirements of this service. Emerging technologies include PET scanning, other hybrid modalities in nuclear medicine such as gamma camera-CT and CT-PET imaging, high-speed and full-body CT imaging, peripheral endovascular therapies, and digital mammography and radiography. Imaging departments in hospitals and in ambulatory centers are growing to accommodate these new technologies as quickly as possible.

At the same time, digital technologies and picture archiving communications systems (PACS) create opportunities to rethink the distribution of imaging services. With images increasingly available to radiologists by computer, imaging equipment can be more easily decentralized to other areas where patient care is being provided, such as mammography units in breast centers, CT scanning in the ED, and imaging in perioperative suites. Faster imaging times and fewer retakes also mean greater throughput for many modalities, which translates into the need for greater space for patient changing and support areas.

Ambulatory services

The fastest growing segment of the market for many years, outpatient service development is becoming a cornerstone in the service delivery plan of most health care systems. Ambulatory facilities have evolved from limited, single-service operations in store fronts to strategically placed and organized multidisciplinary health care centers designed to appeal to highly mobile and discriminating customers and as potential vehicles for hospital/physician partnerships.

Facility design is critical to the freestanding ambulatory care center's image and its attractiveness to patients. Larger ambulatory care centers will include

© Copyright 2004 by The Business Word Inc. It is illegal under federal copyright law to reproduce, fax or input electronically this publication or any portion of it without the publisher's permission.

related retail businesses such as spas and herbal/vitamin shops as part of a women's health service line. Adequate parking close to building entrances and a location that is accessible and attractive are important features as well. Consideration should also be given to the expansion potential of the site, including acquiring a large parcel of land for additional services and facilities in the future if needed.

Hospital-based ambulatory services require special considerations in terms of location and layout. Aggregating outpatient services in a separate zone near patient entrances is ideal to maximize their accessibility and separation from inpatient and emergency activity. Where inpatient and outpatient services are provided within the same department, the configuration of the area should allow separation of outpatients from inpatients, if possible, with separate entrances and waiting areas to minimize cross traffic.

Advances in technology and changes in patient care delivery systems will continue to challenge health care facilities in the 2004 and beyond future. Anticipating these changes and building in as much flexibility as possible will maximize the life of facility investments while enhancing the delivery of supportive and cost-effective care. ■

Tracy K. Johnson, CHE, CHC, is Manager, Health Strategies & Solutions, Inc., 1628 John F. Kennedy Boulevard, Suite 200, Philadelphia, PA 19103. 215-636-3500, ext. 108. E-mail: tjohnson@hss-inc.com.

© Copyright 2004 by The Business Word Inc. It is illegal under federal copyright law to reproduce, fax or input electronically this publication or any portion of it without the publisher's permission.
For more permission information, see page 2.