

MARKETPLACE

THE WALL STREET JOURNAL

WEDNESDAY, NOVEMBER 27, 2002

Healthy Hospital Designs

*Improving Decor and Layout
Can Have Impact on Care;
Fewer Fractures and Infections*

By MOTOOKO RICH

HOSPITALS, long a bastion of bad design and dreary decor, are finding that improving their layouts and their looks can translate into better health for their patients.

Take the Barbara Ann Karmanos Cancer Institute in Detroit, which was gutted and renovated two years ago. Before the overhaul, it had the institutional feel of hundreds of hospitals across the country: dingy beige walls, fluorescent lighting and cramped patient rooms. The redesign introduced softer colors like pastel blues and greens on the walls; warmer, indirect lighting; wider hallways and doors; and pullout sofas for visitors.

At first, hospital administrators figured most of the changes were cosmetic. But in tracking some patients with sickle-cell anemia who had checked into the hospital both before and after the redesign, they found that on average, the patients gave themselves 45% less self-administered pain medication in the refurbished facility. Among a group of patients with prostate cancer, those who were admitted after the redesign cost the hospital an average of 23.5% less than others who had checked in beforehand—again, largely because of the reduced use of pain medication.

"There is no question in my mind that a calming, healing environment helps patients deal more effectively with their pain," says Michael Henderson, a physician and chief medical officer at the institute.

The idea that a building's layout, furniture and decor influence patients' medical experiences isn't new. "It's something we innately felt," says Debra J. Levin, executive vice president of the Center for Health Design, a nonprofit group for designers, health-care executives and product manufacturers in Pleasant Hill, Calif. The problem, she says, was "there was nothing out there to hang your hat on." Hospital executives "were saying if you want funding, you need



▲ At the Swedish Medical Center in Seattle, still-life paintings cover cubbyholes containing medical equipment and reclining chairs add to patients' comfort.



The Karmanos Cancer Institute in Detroit updated its drab nursing station (left) with colorful artwork, soft, pastel wall colors and computers (above).

to prove to me that if you do X, you'll make Y happen. I can't just trust you with my \$20 million on a handshake."

So two years ago, the center decided to try to prove its theories. Together with 10 hospitals that had either recently built or renovated facilities or were planning to do so, it launched a series of research projects. Now,

the results of some of the design changes are starting to be measured.

At Methodist Hospital in Indianapolis, Clarian Health Partners Inc. renovated its cardiac wing and redesigned rooms so that patients wouldn't have to move from critical-care units to recovery bays. Afterward, the number of patient falls dropped 60%, says Ann Hendrich,

a former Clarian executive who worked on the renovation.

Bronson Methodist Hospital in Kalamazoo, Mich., built a new 348-bed facility two years ago with only private rooms. Since then, officials have noted a sharp reduction in hospital-acquired infections. The new single rooms also allow doctors to have more private—and in many cases more thorough—conversations with their patients. "I'm often talking about life and death issues and the intimate details of medical history," says Mark Marbey, a heart surgeon at Bronson. "A number of things can go on when there isn't another patient and family just beyond the curtain."

The change is also helping the hospital's bottom line: In the old facility, the hospital spent about \$500,000 each year to transfer patients who had problems with their roommates or infection-control issues, says Frank Sardone, chief executive of Bronson. "We view private rooms as a cost-saving mechanism," he says.

Until recently, most hospitals were designed almost by accident, with new wings sprouting without much thought to how they fit with what had been built before. But now, there's a boom in new building. Hospitals are anticipating explosive growth in demand from baby boomers, and health-care facility construction is expected to increase 17% this year, compared with 1% growth in construction overall, according to McGraw-Hill Construction, a division of McGraw-Hill Cos.

All that building is giving hospitals the opportunity to rethink how they want their wards to look and function. Naturally lit atriums and meditative gardens are turning up more frequently, driven by studies that show exposure to nature reduces stress and speeds healing. Many hospitals are breaking up nursing stations into smaller pods and moving them closer to patients' rooms, with some hospitals installing computers outside many rooms so that nurses and doctors can check charts and fill out paperwork electronically. One company, Catalina Curtain Co. in Catalina Island, Calif., has even begun selling curtains covered with beach and garden scenes for hospitals to install around patient beds.

To help shake it out of conventional thinking about waiting-room design, Memorial Hospital & Health System of South Bend, Ind., hired Ideo, designer of the Palm V hand-held computer and the New York emporium of fashion-house Prada Group NV, to aid it in planning a new cardiac wing. One Ideo recommendation: a waiting area broken up into private alcoves for individual families.

"There is so much impetus on satisfaction of the customer, and that's very much part of our desire to make the family as satisfied as they can be," says Beverly Teegarden, a nurse and executive director for critical care and cardiovascular services at Memorial.

Even changes that seem merely aesthetic can have an impact. In a surgical recovery room at Swedish Medical Center in Seattle, John Pangrazio of the NBBJ architecture and design firm placed small still-life paintings over cubbyholes containing oxygen masks, suction lines and blood-pressure cuffs.

A Healthy Atmosphere

New studies show that replacing or updating hospital décor and design can have a positive effect on patients' health. A sample of renovated hospitals:

FACILITY	LOCATION	RENOVATION DETAILS
Barbara Ann Karmanos Cancer Institute	Detroit	Softer colors like pastel blues and greens on the walls; warmer, indirect lighting; wider hallways and doors; pullout sofas for visitors
Cardiac Wing of Clarian Health Partners' Methodist Hospital	Indianapolis	Modified patient rooms so that cardiac patients stay in one room throughout their stay; reclining sleeper chairs for family members; private toilets for each patient
Bronson Methodist Hospital	Kalamazoo, Mich.	All private rooms; atrium garden; local art; most corridors exposed to natural light
Swedish Medical Center	Seattle	Recovery rooms with art-covered cubbyholes to hide medical equipment such as oxygen masks; decentralized nursing stations with flip-down desks and computers outside patient rooms
SSM DePaul Health Center	Bridgeton, Mo.	In rooms, provides wall-to-wall erasable boards on which patients, families or staff may write or draw notes; multiple nursing "pods"; leaf imprints on ceiling tiles



A new bathroom (right) at the Barbara Ann Karmanos Cancer Institute in Detroit, compared with one of its predecessors



"It's not so intimidating to people who really don't like hospital-like equipment," says Ginny Burnett, a nurse and manager at Swedish. "It helps to foster a feeling of wellness."

To be sure, patients are more concerned about the quality of their doctors and nurses than whether they have well-lit rooms or wide hallways. Even factors like noise levels in and around their rooms aren't a major factor in patient satisfaction scores, says Deirdre Mylod, manager of research and development at Press Ganey Associates Inc., a South Bend, Ind., company that conducts patient surveys for hospitals.

But changes in design can help both staff performance and patients. When Chicago's Northwestern Memorial Hospital replaced its antiquated facilities with a new 500-bed hospital three years ago, it put in window seats that fold out into beds so that family members can spend the night in all of its patient rooms. "The advantage for the staff is that now the family isn't underfoot," says Cynthia Barnard, a hospital executive. "The room design actually helps the nurses help the patients."

Meanwhile, Northwestern's scores in Press Ganey surveys, previously in the 30th percentile, are now clustered between the 80th and the 85th percentile.