

# Medical Construction & Design®

*The Source for Current News, Technology & Methods*

CAPITAL ASSET PLANNING &  
FACILITY MANAGEMENT FEATURE

JULY/AUGUST 2007  
VOLUME 3, ISSUE 4

## A Hospital With **HEART**

Technology, design, and a focus on patients  
and family at University of Kansas

Cooling Contingency  
Preparing for Catastrophic Failure

VALUE ENGINEERING  
IN HEALTHCARE



## Improving Efficiency: Reducing the Distance Nurses Walk

### *A Few Simple Steps Now Could Save Thousands of Steps Later*

A study by Rapid Modeling, a Cincinnati-based simulation consultancy working to improve the efficiency of U.S. hospitals, found that placing wall-mounted workstations manufactured by Proximity Systems of Houston in or near patient rooms could reduce the distance nurses walk by between 50 percent and 80 percent.

The "Hospital Unit Design Study" compared scenarios involving a central nurses' station; computers on carts; and Proximity WorkStations, to aid nurses in providing care, dispensing medication and documenting treatment. The models yielded results of 45,406 feet and 16,796 feet walked per day for the "nursing station" and "nursing station with carts" scenarios. The distance traveled for the Proximity WorkStation scenario was just 8,387 feet, 80 percent less than the nursing station scenario.

According to Nelson Lee, Rapid Modeling president, Proximity WorkStations' ability to hold IT equipment, as well as securing patient information, medications, supplies and medical devices positively impacted the greatest number of nursing tasks.

#### **Real-World Experience Confirms Study Results**

Ivy Holt, director of Nursing Informatics at Providence Portland Medical Center, Portland, Ore., agreed with the study. "When I started here we were paper-based and used a central nurses' station model, then we went to computers on wheels before finally installing the Proximity WorkStations," she said.

Holt said that with the central nurses' station computer patient care was not documented in real time. She described the distance traveled as inefficient and the process as potentially inaccurate. Holt described ongoing problems with computer carts, including staff not remembering to charge the carts and not being able to maneuver them into rooms around medical equipment, wires and visitors.

"With the Proximity WorkStations we have become much more efficient," said Holt. "We've put the computer and sup-



plies at the point of care where they are needed. We have all the tools at hand in a wall unit that is aesthetically pleasing (which is important), hides the CPU, uses very little space and no floor space," she said, referring to how close Proximity WorkStations are to within inches of the wall.

"We are reviewing and entering information and doing it in real time," she said. This timeliness can help improve accuracy.

#### **Steps Toward Increased Efficiency and a Healthier Bottom Line**

Lee feels the results of his company's study could have far-reaching implications for patient care and hospitals' bottom lines. "Limiting physical stress on nurses from excess walking can positively impact safety, accuracy, nurse productivity and retention, while reducing accidents and mistakes—ultimately lowering costs," he said. The most exciting aspect of the study, however, may be that since Proximity WorkStations can be implemented during new construction, or as a retrofit to an existing design, any medical facility can benefit.

For further information, please visit [www.proximitysystems.com](http://www.proximitysystems.com).