Robert Wood Johnson Foundation

Published: January 25, 2012
Program Results Report
Grant ID: 59929

Helping Restore the "Big Charity" in New Orleans

Technical assistance for a new post-Katrina safety-net hospital designed to improve health care

SUMMARY

In 2005, Charity Hospital, known as "Big Charity," closed following Hurricane Katrina. This facility had provided more than 90 percent of care to the uninsured residents of New Orleans. It was part of the Medical Center of Louisiana at New Orleans.

From 2007 to 2011, Louisiana State University Health Care Services Division (LSU Health) worked to apply evidence-based design principles in creating a new top-quality hospital to replace Charity Hospital. In health care, evidence-based design relies on research-based best practices to improve the quality and safety of both patient care and the workplace.

LSU Health subcontracted with researchers at Georgia Institute of Technology's College of Architecture for technical assistance in pursuing much of this work.

Key Result

LSU Health completed architectural plans for a new 424-bed hospital in New Orleans , incorporating numerous features of evidence-based design. Groundbreaking for the hospital took place in April 2011.

Funding

RWJF supported this project through a grant of $1,242,267 to the Medical Center of Louisiana Foundation, which served as fiscal agent.

CONTEXT

The Medical Center of Louisiana at New Orleans was the flagship facility of LSU Health Care Services Division, a seven-hospital system that is the largest provider in Louisiana. "Big Charity" provided more than 90 percent of health care for the 23.5 percent of New Orleans residents who lacked health insurance.

The hospital also trained numerous medical residents and other health professionals from Louisiana State University and Tulane Health Sciences Centers. The hospital's closure severely challenged such training and the delivery of care to the residents of New Orleans who were uninsured.

In 2006, LSU Health committed to using evidence-based design to plan a new hospital. Research in this growing field has shown a clear link between a hospital's physical design and patient care and safety, staff recruitment and retention, organizational efficiency, and financial performance. However, LSU Health lacked the funding to gather, analyze, and apply information on evidence-based design practices.

RWJF's Interest in This Area

RWJF has provided not only immediate relief after Hurricane Katrina decimated the Gulf Coast and New Orleans (see the Special Report, *In the Eye of the Storm*) but has continued to provide funding for the city to redevelop its public health infrastructure. For example, see remarks by John Lumpkin, MD, senior vice president and director of the Health Care group about rebuilding the health care system.

The Foundation also has funded other programs and projects that seek to improve the workings of hospitals through changes in architectural design and workflow. See the Program Results Report on the development of community-based tools to increase the use of evidence-based design in hospital construction.

THE PROJECT

From 2007 to 2011, LSU Health Care Services Division worked with partners to apply evidence-based design principles in creating a new top-quality hospital. In health care, evidence-based design relies on research-based best practices to improve the quality and safety of patient care and the workplace.

LSU Health subcontracted with researchers at Georgia Institute of Technology's College of Architecture for technical assistance in pursuing much of this work.

The Georgia Tech team analyzed complex health care processes and the designs that could best support them. For example the team:

- Identified potential bottlenecks and resource constraints in the emergency department, and suggested alternatives for enhancing patient flow
- Interviewed officials at six hospitals regarding their experiences with "acuity-adaptable" rooms, which provide a single setting for a range of care levels, eliminating the need to transfer patients among different rooms

- The Georgia Tech team developed Just-in-Time Research—a rapid-response service—to summarize the best-available information on critical design challenges when participants in hospital design meetings could not reach consensus. The service provided a two-week turnaround.

The hospital design team toured leading hospitals to learn which key design features have proven successful and which have not. The hospitals, selected by the Georgia Tech team, were:

- Kings County Hospital, New York City
- New York-Presbyterian Hospital, New York City
- Wake Forest Baptist Medical Center, Winston-Salem, N.C.
- WakeMed Raleigh Campus, Raleigh, N.C.
- Emory Hospital, Atlanta

LSU Health joined the Pebble Project, a network of 42 hospitals applying evidence-based design to major construction. The network, run by the Center for Health Design, allows members to share experiences and expertise through meetings and a listserv. The project team also toured hospitals with exemplary design in conjunction with Pebble Project meetings.

RESULTS

The project team reported to RWJF that LSU Health completed architectural plans for a 424-bed hospital in New Orleans that incorporates numerous evidence-based design features. For example, the hospital will have:

- Distributed nursing stations located outside of patients' rooms, which will serve as small offices where nurses can complete charting and other administrative work while remaining near their patients
- Emergency room surge capacity: the ability to respond to a massive influx of patients without disrupting other care
- A family zone in patient rooms, where visitors can be near their loved one without intruding on staff
- Patient rooms equipped with showers that lack sills, to avoid tripping hazard
- LSU Health also rejected some design features, such as the acuity-adaptable model, based on research by the Georgia Tech team.

- The hospital is designed to attract insured patients for specialty care while also providing state-of-the-art care to uninsured patients, according to project staff. Groundbreaking for the hospital took place in April 2011.

Communications Results

LSU Health presented the hospital's evidence-based design features and advantages at several public forums to gain community support for the project.

The Georgia Tech team wrote two reports on its work on the project: *Supporting LSU in Creating an Excellent Evidence-Based Hospital*, and *Just-in-Time Research: LSU Hospital Design*.

The project team presented twice to Pebble Project meetings—once on emergency room design and Just-in-Time Research, and another time on lessons from Katrina related to hospital construction.

LESSONS LEARNED

1. **Implement a rapid-response model for evidence-based design.** According to Michael Kaiser, MD, the project director, Georgia Tech's Just-in-Time Research service helped the project team maintain a tight planning schedule by shedding light on design challenges that confounded normal decision making.

2. **Communicate early to establish roles for collaborators on evidence-based design.** The three teams involved in planning the new hospital—LSU Health in New Orleans, the Georgia Tech team in Atlanta, and a private architectural practice in Seattle—were not only widely separated geographically, but also brought different cultures, motivations, and knowledge to the table. This produced occasional misunderstandings. (Project Director/Kaiser)

AFTERWARD

The hospital is scheduled for completion in spring 2015, with move-in taking place the following fall. LSU Health will survey patients on their satisfaction with the new facility using a form developed by the Georgia Tech team.

The Center for Health Design is adding the researchers' report on Just-in-Time Research to its Ripple database (created with RWJF support) which provides information on the use of evidence-based design in health care. (See the Program Results Report.)

Prepared by: Robert Crum
Reviewed by: James O'Connor, Sandra Hackman, and Molly McKaughan
Program officer: Maryjoan D. Ladden
Grant ID # 59929
Program area: Vulnerable Populations

BIBLIOGRAPHY

Reports

Supporting LSU in Creating an Excellent Evidence-Based Hospital. Atlanta: Georgia Institute of Technology, 2011.

Zimring C, Cowan D, and Seo B. *Just in Time Research: LSU Hospital Design.* Atlanta: Georgia Institute of Technology, 2010.