Hospital Design

From Barrier to Connector

By JOANNA LOMBARD, M. Arch., and ELIZABETH PLATER-ZYBERK, M. Arch.

The confluence of emerging data in the areas of evidence-based design in health care and the health and built environment data in urbanism has produced an opportunity to reconsider health care institutions' role in community building.

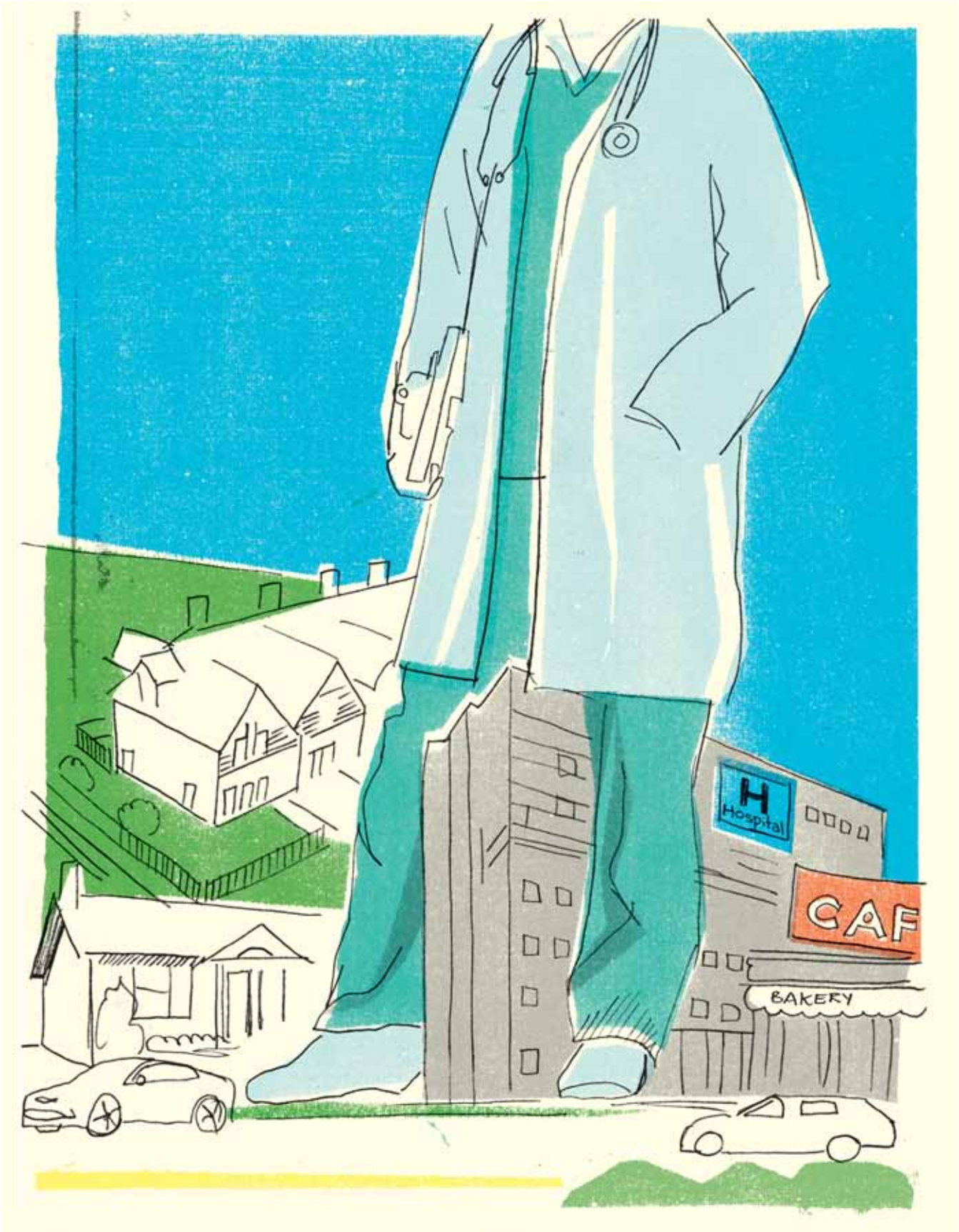
Extending from the urban core to first-ring suburbs, the fringes of suburban sprawl and beyond, health care facilities exert a formidable impact — they shape a community's identity, though often by default. Understanding its institutional impact enables a health care facility to express its central mission of healing, which encompasses the physical and spiritual and addresses the range of human experience from the individual to the community.

While the impact of an entirely new or "greenfield" facility can be evident, the transformative potential of an urban hospital is less apparent. Aside from its employment capacity, the urban hospital is often viewed as an unappealing destination, lacking in greenery and, often, beauty; troublesome in its parking dilemmas and unfriendly as a neighbor. The locations of urban hospitals can unnerve suburban dwellers. Iterative building additions fill in courtyards and gardens, creating labyrinthine interiors that confuse staff and visitors alike. Parking is often a challenge and can require expensive structured parking, typically void of grace and beauty. The edges of urban hospitals can provide neighbors with unsightly views of delivery bays or simply blank fences and facades, which devalue their surroundings.

The irony of this physical context for health care is that the facility itself contradicts the characteristics associated with healthy communities. Research on health and well-being is demonstrating the benefits of walkable, mixed-use centers.[1,2,3] The enhanced physical activity associated with walkable destinations protects against obesity, cardiac disease and some cancers, and it enhances opportunities for social interaction, which is important for overall well-being.[4]

The potential for health care institutions to serve communities as good neighbors and as regional destinations is significant. Within the constellation of activities necessary to urban vitality, a health care facility already is well endowed. Typically hosting some form of food service, retail, offices and a 24/7 presence, the hospital can provide an important anchor to a town center. If designed to support a dynamic streetscape, the hospital can be an enormous benefit to the neighborhood and, through its stable presence, encourage investment and renewal in existing neighborhoods.

For a hospital to fulfill its potential as a neighborhood enhancer, there are four fundamental aspects of transformation essential to the planning process. These are based on research that demonstrates effective impact; the goal is an institution that succeeds in its mission as well as in its esteemed position as a critical partner in community-building.


H
Hospital
CAF
BAKERY

PARTICIPATORY PLANNING

First, research demonstrates that productivity is enhanced in places that provide an opportunity for encounters with diverse points of view.[5]

Further, participatory planning processes that engage a full spectrum of constituents in a structured dialogue can lead to new ideas, effective strategies and greater consensus — not necessarily agreement, but rather a shared appreciation of the legitimacy of the decision-making process, as well as enhanced participation and community identity.

The irony of this physical context for health care is that the facility itself contradicts the characteristics associated with healthy communities.

The charrette planning process is typically an open planning process in which a team of designers and consultants converge on a location for specific period of time, usually 7-10 days, to engage in information-sharing sessions with relevant government agencies, community groups and interested parties. Many of these meetings are public sessions and ultimately inform the development of design proposals.

Providing a forum through a participatory process such as a charrette can reveal opportunities that may not have been considered. One health care system, for example, discovered that the caution with which it was approaching any changes for fear of unsettling the neighbors was, in fact, unwarranted. In that case, the neighbors were eager for change and had many ideas on ways that the system could grow and enhance its level of care and status, some of which involved services, others physical structures and other budget-neutral ideas that would give the system a higher profile in the community.

An open process brings these ideas forward, introduces members of the institution to one another as well as to the community and builds consensus. Although the process does not guarantee agreement, consideration of the concerns raised demonstrates respect for all persons, and the potential for community building is reinforced, both within the institution and beyond.

TURNING OUTWARD

Mixed use has been a consistent marker of walkable neighborhoods. A typical urban core supports mixed use through the presence of shops, restaurants, residences and offices. A typical health care institution may instead turn inward, isolating itself from street life. Consuming entire blocks, the hospital diminishes the mixed use that is essential to urban life. This is an area where the urban hospital can rethink its own configuration. Medical campuses provide a daily influx of potential customers who could support retail operations that would then provide destinations for nearby residents. For the health care systems, relocating some of the functions that neighbors can use — dining, pharmacy, retail, as well as outpatient services — from deep within the interiors of the hospitals to the exterior, where these facilities can generate attractive street frontages, produces both a secure and dynamic campus edge. These newly identifiable and active streets then serve the neighborhood and solve some of the identity and navigability challenges for the health care facilities.

AVOIDING BLOCK KILLERS

Memorable and navigable places typically connect well-defined centers and edges. Every hospital hosts various centers that can be defined better through neighborhood-friendly concepts. Some areas, for example, can be externalized to occupy street frontages. Others can be situated along publicly accessible courtyards and gardens.

The ability to navigate a facility easily and to find spaces that are contemplative as well as those that are active ensures a variety essential to a well-integrated place. Attention to the edges of a campus in an urban setting means the difference between a block killer, which lines the streets with windowless walls, few doors and no street-level amenities, or a block builder that provides active doors and windows, a pedestrian-friendly sidewalk and streetscape indicative of the health care system identity. Block killers present parking lots and structures directly along the street; block builders provide street lights and street trees concealing parking lots, and they provide structures with occupied buildings and a sense of "eyes on the street."

Sensitivity to the character of the neighborhood, its historic architecture and the potential for health care architecture to offer comfort and reassurance can result in an architectural style that is compatible with neighboring buildings, supports the neighborhood and enhances the climate of the institution. A navigable and identifiable health care institution benefits all parties.

TRANSPORTATION PLUS WALKS

Urban settings generally offer employees greater transit choices. For the 10-20 percent of the staff at the lowest end of the pay scale, the ability to save on travel expenses and car ownership is an enormous benefit. For many outpatients and families, transit also offers a valued transportation choice. Designing entrance and arrival features to accommodate transit stops encourages transit use, which research demonstrates is related to health benefits that result from greater walking.[6]

Urban connectivity is a significant benefit for housing choice as well. The urban health care campus often is in itself a five-minute walk. With associated medical office buildings and related facilities, the campus typically expands beyond the five-minute circle. Major urban medical centers can encompass a number of five-minute walk circles. Developing a design strategy from transit to key locations or the design of the path from the car door to the front door should look to the five-minute walk as the defining area. Organizing the series of walks into a pattern of centers and edges establishes unique character and quality of place that enhances the social and physical environments.

The setting for health care is the community, and the health care institution greatly contributes to the character of the community. The historic, fortress approach of locked gates and eyeless wallscapes sent a message that presaged departure. Returning to the urban core sends a new message — one of inclusiveness and aspiration. Health care systems are building housing, retail and reviving neighborhoods as well as their own fortunes. The very process of engaging a community in planning the future, along with the results of well-planned blocks and streets, buildings and greens signal a new partnership that calls to mind the potential of place. The physical place then represents the mission that calls us all to community.

Our surroundings enable the reflection that directs the mind to consideration beyond the immediate. Embedded in the most current medical practices, Catholic health care also addresses the fundamental questions of human existence — why are we here, what is our purpose? In this way, the healing of the body is united with the healing of the soul. The built environment that shapes the spaces for these encounters is endowed, therefore, with a powerful responsibility to assist in the expression of this central mission.

JOANNA LOMBARD, a practicing architect, is a University of Miami School of Architecture professor with a joint appointment in the Miller School of Medicine.
ELIZABETH PLATER-ZYBERK, architect and principal of Duany Plater-Zyberk & Company, is the dean of the University of Miami School of Architecture with a joint appointment in the Miller School of Medicine.

NOTES

1. Lawrence D. Frank et al., "Linking Objectively Measured Physical Activity with Objectively Measured Urban Form: Findings from SMARTRAQ," *American Journal of Preventive Medicine* 28, no. 2, S. 2 (2005): 117-25.
2. Christine M. Hoehner et al., "Perceived and Objective Environmental Measures and Physical Activity among Urban Adults," *American Journal of Preventive Medicine* 28, no. 2, S. 2 (2005): 105-16.
3. Lawrence D. Frank et al., "A Hierarchy of Sociodemographic and Environmental Correlates of Walking and Obesity," *Preventive Medicine*, 47 (2008): 172-178.
4. Scott C. Brown et al., "Built Environment and Physical Functioning in Hispanic Elders: The Role of 'Eyes on the Street'," *Environmental Health Perspectives*, 116, no. 10, (Oct. 2008):1,300-07.
5. Ank Michels and Laurens De Graaf, "Examining Citizen Participation: Local Participatory Policy Making and Democracy," *Local Government Studies*, 36, no. 4, (2010): 477-491.
6. Lilah M. Besser and Andrew L. Dannenberg, "Walking to Public Transit: Steps to Help Meet Physical Activity Recommendations," *American Journal of Preventive Medicine* 29, no. 4, (2005): 273-280.

JOURNAL OF THE CATHOLIC HEALTH ASSOCIATION OF THE UNITED STATES www.chausa.org

HEALTH PROGRESS®

Reprinted from *Health Progress*, November-December 2011