Integrating hospitals into healthy communities

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[Latin]: *hospes*

*Guest, host, stranger...*
HOSPITAL

Access?
Environment?
Safety?
Physical Activity?
Social Capital?

MALL
Hospital Community Impacts

- Lack of Primary healthcare
- Ugly, out of scale buildings
- Noise
- Traffic
- Lack of neighborhood retail
- Lack of connections

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“The symptoms or the suffering generally considered to be inevitable and incident to the disease are very often not symptoms of the disease at all, but something quite different—of want of fresh air, or light, or warmth, or of quiet, or of cleanliness..

FLORENCE NIGHTINGALE, 1860
English nurse, writer, statistician
A COURT FOR KING CHOLERA.

31 August–8 September, 1854, LONDON
JOHNS HOPKINS HOSPITAL
Baltimore MD ca. 1889
POST-WAR
"MODERN" HOSPITAL

D&T BASE
Efficient layout
Daylight excluded

PATIENT BED TOWER
Every room the same
Core lacks daylight

PARKING
1948 Hill-Burton Act

TODAY

Academic Medical Center
Teaching Hospital
Tertiary Regional Hospital
Specialty Hospital
Critical Access Hospital (rural)
Community Hospital
Medical Office Building
Urgi-Center
Primary Care Clinic

THE COORDINATED HOSPITAL SYSTEM

BASE HOSPITAL
DISTRICT HOSPITAL
RURAL HOSPITAL and Health Center
COMMUNITY CLINIC
Imperatives of Urban Planning

- **Livability**
  - Quality of life
  - Mixed-use environments
  - Transportation options
  - Job and housing options
- **Walkability**
  - Connectivity
  - Streetscape design
  - Destinations
- **Adaptability**
  - Allowing change in uses without changes in the framework
- **Sustainability**
  - Green infrastructure
  - Green buildings
  - Access to nature
  - Environmental justice
  - Support local economies

Imperatives of Medical Planning

- Functional adjacencies
- Block and stack
- Patient flow
- Materials management
- Infection control
- Travel distances
- Future flexibility
- Future expansion
- Staffing efficiencies

"Additional Planning Criteria"

- The patient experience
- Staff satisfaction and retention
- Community interface
- Integrated public spaces
- Quality of place
- Brand expression
- Wayfinding
- Daylighting and access to nature
- Sustainability

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HEALTHCARE PLANNERS
INSTITUTIONAL PLANNING PROCESS
URBAN PLANNERS
COMMUNITY PLANNING PROCESS
INTERDISCIPLINARY PLANNING
MULTI-STAKEHOLDER PROCESS

HEALTH DISTRICT PLANNING

COMMUNITY MEMBER
RESIDENTS, PATIENTS, EMPLOYEES, VISITORS

HEALTHY PLACES + AMENITIES

PATIENTS
VISITORS
EMPLOYEES

RESIDENTS
A HEALTHY BUILT ENVIRONMENT

Beth Israel Deaconess Medical Center, Boston, MA
ACCESS TO OPEN SPACES

SOCIAL SUPPORT  NATURE ENGAGEMENT  SENSE OF CONTROL  EXERCISE

EVIDENCE THAT ALL OF THESE REDUCE STRESS

IMPROVED HEALTH OUTCOMES
... each hospital job supports about two more jobs and every dollar spent by a hospital supports roughly $2.30 of additional business activity.

AMERICAN HOSPITAL ASSOCIATION
CASE STUDY

A historic opportunity to envision the joint future of one of La Crosse’s oldest neighborhoods and its largest employer.
“Too Many Absentee Landlords”

“Neighborhood Not Safe to Live in”
USDA Food Desert

“No Places to Buy Lunch”
The study area is **under-retailed** although the region is not.

<table>
<thead>
<tr>
<th></th>
<th>Demand</th>
<th>Supply</th>
<th>Sales Gap</th>
<th>Gap as % of Demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study Area</td>
<td>$23.7M</td>
<td>$3.1M</td>
<td><strong>$20.7M</strong></td>
<td><strong>87%</strong></td>
</tr>
<tr>
<td>City of La Crosse</td>
<td>$424.9M</td>
<td>$615.1M</td>
<td>-$190.2M</td>
<td>-45%</td>
</tr>
<tr>
<td>La Crosse MSA</td>
<td>$1,217.2M</td>
<td>$1,199.6M</td>
<td>$17.7M</td>
<td>1%</td>
</tr>
</tbody>
</table>

Source: ESRI Business Analysis Online, 2012; HR&A Advisors, Inc.
## Retail Demand Based on Existing Demographics

<table>
<thead>
<tr>
<th>Retail Category</th>
<th>Sales Gap</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Food-Based Retail:</strong></td>
<td></td>
</tr>
<tr>
<td>Food &amp; Beverage Stores</td>
<td>$3,195,424</td>
</tr>
<tr>
<td>Grocery Stores</td>
<td>$3,128,938</td>
</tr>
<tr>
<td>Specialty Food Stores</td>
<td>$39,601</td>
</tr>
<tr>
<td>Beer, Wine &amp; Liquor Stores</td>
<td>$26,886</td>
</tr>
<tr>
<td><strong>Food Services &amp; Drinking Places</strong></td>
<td>$2,883,945</td>
</tr>
<tr>
<td>Full-Service Restaurants</td>
<td>$923,756</td>
</tr>
<tr>
<td>Limited-Service Eating Places</td>
<td>$2,013,427</td>
</tr>
<tr>
<td>Special Food Services</td>
<td>$85,783</td>
</tr>
<tr>
<td>Drinking Places - Alcoholic Beverages</td>
<td>$(139,021)</td>
</tr>
<tr>
<td><strong>Additional Categories of Excess Demand:</strong></td>
<td></td>
</tr>
<tr>
<td>Electronics &amp; Appliance Stores</td>
<td>$617,787</td>
</tr>
<tr>
<td>Bldg. Materials, Garden Equip. &amp; Supply Stores</td>
<td>$390,916</td>
</tr>
<tr>
<td>Gasoline Stations</td>
<td>$3,536,484</td>
</tr>
<tr>
<td><strong>General Merchandise Stores</strong></td>
<td>$4,161,157</td>
</tr>
<tr>
<td>Motor Vehicle &amp; Parts Dealers</td>
<td>$3,745,452</td>
</tr>
</tbody>
</table>

- **Food-Based Retail:**
  - 5-7k SF
- **Food Services & Drinking Places:**
  - 6-8k SF
- **General Merchandise Stores:**
  - 10-20k SF
A Grocery Store that is 5-7K SF
Challenging operational scale for most operators

A Café / Restaurant that is 6-8K SF

A General Merchandise Store that is 10-20K SF
Contemporary operators seek massive scale or downtown site
Market dynamics and financing availability mean virtually all new multi-family development will be affordable.

**Market Rate Rent**

~$1.00 / SF / Month

Project income does not cover development costs + required returns.

**Affordable Rents**

$0.75 / SF / Month

Federal and State incentives fill the gap: 
Low Income Housing Tax Credits for projects with tenants at 60% AMI
New Market Tax Credits for projects with at least 20% commercial space.
### 2013 Maximum Incomes for Low Income Housing Tax Credits, La Crosse County, WI

<table>
<thead>
<tr>
<th>Household size</th>
<th>60% Average Median Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>One person</td>
<td>$29,100</td>
</tr>
<tr>
<td>Two persons</td>
<td>$33,240</td>
</tr>
<tr>
<td>Three persons</td>
<td>$37,380</td>
</tr>
<tr>
<td>Four persons</td>
<td>$41,520</td>
</tr>
<tr>
<td>Five persons</td>
<td>$44,880</td>
</tr>
<tr>
<td>Six persons</td>
<td>$48,180</td>
</tr>
</tbody>
</table>

*Source: http://www.danter.com/TAXCREDIT/getrents.HTML*

### Healthcare employees who may be qualified to rent affordable housing units, based on American Medical Association data:

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Starting salary</th>
<th>Average salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency medical technician</td>
<td>$19,360</td>
<td>$30,000</td>
</tr>
<tr>
<td>Pharmacy technician</td>
<td>$19,480</td>
<td>$28,070</td>
</tr>
<tr>
<td>Medical assistant</td>
<td>$20,750</td>
<td>$28,650</td>
</tr>
<tr>
<td>Cardiovascular technologist</td>
<td>$25,940</td>
<td>$48,300</td>
</tr>
<tr>
<td>Surgical technologist</td>
<td>$27,910</td>
<td>$39,400</td>
</tr>
<tr>
<td>Health Information Technician</td>
<td>$30,000</td>
<td>$39,100</td>
</tr>
</tbody>
</table>

PARTNERING FOR IMPLEMENTATION

- **Joint Development Corporation**
  currently in organization phase, led by City of La Crosse and Gundersen Lutheran – TIF Funds

- **Community Development Corporation**
  currently in organization phase, led by Neighborhood Revitalization Commission

A CDC that would focus on housing rehabilitation in a concentrated and targeted manner would have the visible impact necessary to entice additional investment within the Study Area.
City, nonprofits launch major urban renewal project
HEALTH DISTRICT PLANNING
HEALTHY BUILT ENVIRONMENT
The design and location of homes, schools, workplaces, stores, streets, and open spaces—our built environment—has a tremendous impact on physical, mental, and social health.

Dr. Richard Jackson, M.D., M.P.H.
Walking is most strongly related to measures of land use diversity, intersection density, and the number of destinations within walking distance. Bus and train use are equally related to proximity to transit and street network design variables, with land use diversity a secondary factor.
Block size and dimensions impact flexibility of development and walkability of the urban environment.
HOSPITAL SPACE REQUIREMENTS

2700-3000 SF / Inpatient

“Hospital Use”
- Inpatient Nursing Units
- Intensive Care Units
- Birthing Units
- Operating Rooms
- Interventional Radiology Suite
- Imaging Suite
- Emergency Department
- Chemotherapy/Infusion
- Renal Dialysis
- Primary Care Clinics
- Specialty Outpatient Clinics
- Physical Plant
- Administrative Offices
- Ancillary Support
- Loading Dock / Storage
- Instrument processing and sterilization
- Parking
- Adult/Pediatric/Women/Psych
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LEGACY GOOD SAMARITAN MEDICAL CENTER 249 beds, 200,000 visits

Health Districts :: CDC Built Environment Work Group :: Oct 2, 2012
intersections per square mile

120

250

480'

230'

Health Districts :: CDC Built Environment Work Group :: Oct 2, 2012
intersections per square mile

less LIVABLE
less WALKABLE
less ADAPTABLE

Health Districts :: CDC Built Environment Work Group :: Oct 2, 2012
St. Olav's Hospital
Trondheim
Norway

Integrating Hospitals into Healthy Communities :: GPA 2013 Fall Conference :: October 10, 2013
St. Olav's Hospital, Trondheim, Norway

500 Parking Spaces
St. Olav’s Hospital, Trondheim, Norway
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Beth Israel Deaconess Medical Center, Boston, MA
Beth Israel Deaconess Medical Center, Boston, MA

Architecture + Materials

Pedestrian Greenway

Public Entrance

Historic Preservation / Adaptive Reuse

Cafe
HEALTH DISTRICT PLANNING
ACCESS TO OPEN SPACE
HEALTH DISTRICTS
AND THE FUTURE OF HEALTHCARE
“By 2020, we had successfully transitioned the health care system from one which "fixed people after they were sick" to one of preventative, diagnostic medicine. Treating them for the conditions we know they were likely to develop.”

Jim Carroll - Futurist, Trends & Innovation Expert
One out of 3 children are obese or overweight before their 5th birthday.

Since 1980, obesity prevalence among children and adolescents has almost tripled.

Source: (National Collaborative on Childhood Obesity Research)
• Changing the business model of healthcare

• GREATER FOCUS ON WELLNESS, PREVENTION, AND COMMUNITY HEALTH

• Moving from “fee for service” to “accountable care organizations”

• Community Health Needs Assessment (CHNA) required for non-profits

• Providers responsible for the care of a population

• Greater emphasis on care management, continuity and collaboration

• Patient Satisfaction Scores factored into reimbursement rates
Hospital Community Benefits

- Healthcare Services
- Economic Benefit
- Healthy Built Environment
- Community Resource
- Local Jobs
- Growth Potential
CONCLUSION