Current Trends in Healthcare Design

Nursing 2015 - Red Team
Health Care Building Boom

• 50% of America’s hospitals are ready for replacement or renewal today
• Half a trillion dollars expected to be spent by 2020 on healthcare construction
• Population dynamics will outstrip facility growth by 2020
• Rising disease burden - 90 million people currently affected with chronic diseases and disabilities
• Despite medical advances many chronic diseases and life style choices are increasing the disease burden - asthma, diabetes, obesity
Current Trends in Healthcare Design

- Evidenced Based Design Principles
- Sustainability
- The Experience
- Private Rooms/Patient Units
- Decentralized Staff Work Area
- Family Space
- Safety
- Staff Amenities
- Bariatrics
Evidenced Based Design

• Landmark study - 1984 by Roger Ulrich (patients with views of nature were discharged 16 hours sooner than those without)

• The Center for Health Design

• Research Basis

• Pebble Projects
39 Pebble Projects

- Research initiatives
  - Medical outcomes
  - EMR - communication impact
  - Security issues
  - Efficient clinic model
  - Cost of service
  - Medication errors
  - Walking metrics
  - Waiting times

- Lighting/access to natural light
- Noise Reduction/Impact
- Infection rates
- Patient falls
- Patient satisfaction
- Staff Turnover
- LOS
- Way Finding
Evidenced Based Design

- Safety
- Patient Outcomes
- Research
- Patient Satisfaction
- Operational Efficiency
- Financial Performance
Sustainability

- LEED
  - Leadership in Energy and Environmental Design

- Green Guide for Health Care
Sustainability

- LEED
  - Site Design
  - Energy Conservation
  - Water Efficiency
  - Green Power
  - Recycled Materials
  - Indoor Air Quality
  - Transportation
  - Innovation in Design
  - Not developed for Healthcare initially

Karlsberger 2007
Sustainability

- Green Guide for Health Care
  - Integrated Operations
  - Energy Management
  - Chemical Management
  - Waste Management
  - Environmental Services
  - Purchasing
  - Innovation in Operations
“The Experience”

- Creating the Experience
  - How it feels
  - How it impacts the stay
  - How it effects patient satisfaction
  - How it impact community reputation
  - How it impacts financial performance
Decentralization is beneficial but not at the expense of a shared communication space.

Modules/Clusters can impose increased staffing issues.
Patient Units - Configurations

Karlsberger 2007
Private Rooms – Inboard/Outboard/Midboard Toilet Rooms

Planning for

- Patient Safety
- Staff Efficiency
- Productivity
Private Room – Same Handed
Private Room – Same Handed Canted
Decentralized Staff Work Area
Outside the Room

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Decentralized Staff Work Area
Outside the Room

Karlsberger 2007
Family Zone

- Family Zone in the Patient Room
  - Sleeping
  - Working
  - Entertainment
  - Information/Education

- Resource Centers
  - Information/Education
Patient Zone

Patient Zone in the Room

- Control
- Physiological Information
- Communication
- Entertainment
- Education
Staff Zone

Staff Zone in the Patient Room

- Observation
- Communication
- Hand washing
- Workspace
- Supplies
Safety

- Patient Safety
  - Standardization
  - Adjacencies
  - Infection Control accommodations
  - Visualization by staff
  - Patient lifting systems
Staff Amenities

- Staff Respite Spaces
- Access to Natural Light
- Walking Metrics
- Integrated Technology
- Recruitment & Retention
- Still found to be at risk in most projects

Karlsberger 2007
Bariatrics

- Larger door openings
- Overhead lifts
- Floor mounted toilets
- Specialized equipment