

A Place to Flourish[®]



The Caritas Project
Generative Space Award
Enabling Health: Everybody, Everywhere

Ann & Robert H.
Lurie Children's
Hospital of Chicago



Design Overview

At 23-stories, the new 1,255,000 SF Ann & Robert H. Lurie Children's Hospital of Chicago, the tallest children's hospital in the world, integrates inpatient and ambulatory care, diagnostic and treatment spaces, and clinical support. Lurie Children's is located on a 1.8-acre site on the Northwestern University's Feinberg School of Medicine Campus, just north of the downtown business center of Chicago. This location will increase clinical, academic and research opportunities. It is also connected by bridges to the Prentice Women's Hospital, which will allow for faster transport of critically ill newborns.

The building's design supports a 2nd floor emergency department, 3rd and 4th floor diagnostic and outpatient clinics, along with radiology, operating rooms, psychiatry, and support services on the remaining lower floors of the building. The upper floors house inpatient services. These distinct services are divided by two levels of public and family support spaces on the 11th and 12th, respectively. On the 11th floor, major amenities include an indoor garden, cafeteria, gift shop, and large conference center. The 12th floor houses a chapel, teen lounge, a central playroom, hair salon, and a family sleep center. Color selections for the hospital are based on five palettes—city, park, lake, woods, and prairie—inspired by Chicago and the surrounding regions. The colors and themes also contribute to wayfinding between and throughout the floors of the hospital.

The 45-bed Kenneth and Anne Griffin Emergency Care Center, uniquely located on the hospital's 2nd floor, has multiple means of access. From the ground level, patients arriving by ambulance will be transported via dedicated emergency elevators. Also at ground level, an entry driveway with curbside drop-off, and a valet service, will accommodate patients arriving by personal vehicle, with strategically positioned elevators directly across from the entry doors. Additionally, there is a direct bridge connection from the adjacent parking structure that will lead families straight to the patient check-in desk and triage rooms. Those arriving with non-emergencies can ride the escalators or "diving bell" elevator to the second floor, where they will access the public elevators between the second and 11th floors. For added security, a second set of elevators provides service between floors 11 and above.

A unique feature of the hospital is the Crown Sky Garden, an interactive indoor garden located on the 11th floor. A linear bamboo grove is framed by a multi-colored light wall that changes color when motion sensors are activated. Colored glass marbles in water runnels meander through the bamboo planters. Reclaimed wood sculptures serve as play elements, as well as benches. They are equipped with interactive speakers that emit sounds of nature. A transparent overlook deck on the 12th floor, called the Tree House, allows patients and their families to view the garden from above.

More than 20 of Chicago's esteemed cultural institutions, in partnership with the hospital and design team, have contributed their time and talents to help make Lurie Children's an engaging and healing environment for patients and their families. Each of the hospital's 23 floors features special, child-friendly designs with unique art and interactive exhibits that celebrate the spirit of Chicago.



North Façade

Lurie Children's is located on a 1.8-acre site on Northwestern University's Feinberg School of Medicine Campus in downtown Chicago.

PHOTOGRAPHER Nick Merrick © Hedrich Blessing

North Façade

The new building is connected by bridges to the Prentice Women's Hospital and a parking structure.

PHOTOGRAPHER Nick Merrick © Hedrich Blessing



Entry Driveway

Those with non-emergencies have the option of ground level drop-off, or entry from a second level bridge from the parking structure.

PHOTOGRAPHER Nick Merrick © Hedrich Blessing



Entry Lobby View

The street level entries are patient-friendly and welcoming. Visitors with non-emergencies can ride the escalators or take the "diving bell" elevator to the second floor.

PHOTOGRAPHER Nick Merrick © Hedrich Blessing



SITE PLAN

- 1 AMBULANCE DOCK
- 2 ENTRY
- 3 LOBBY
- 4 PUBLIC ELEVATOR TO LEVEL 2
- 5 STAFF / SERVICE ELEVATOR
- 6 TRAUMA ELEVATOR
- 7 PATIENT TRANSPORT ELEVATOR
- 8 PUBLIC ELEVATOR
- 9 EMERGENCY ELEVATOR
- 10 EMERGENCY LOBBY
- 11 EMERGENCY ENTRY
- 12 EMPLOYEE ENTRY
- 13 LOADING DOCK
- 14 PRENTICE WOMEN'S HOSPITAL
- P PARKING



LEVEL 1 FLOOR PLAN

Loading / Lobby

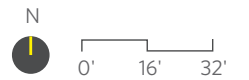


LEVEL 2 FLOOR PLAN

Emergency

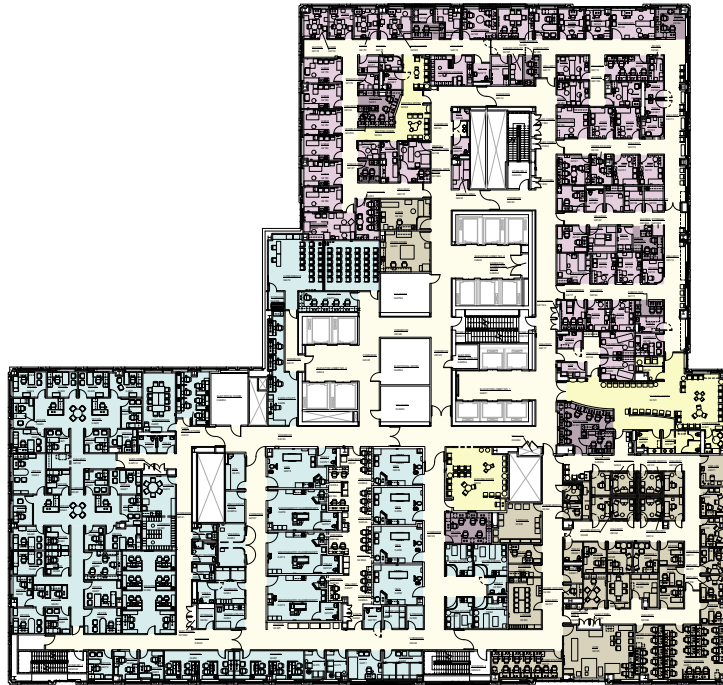


- | | | |
|---|---|---|
| ■ Emergency Room | ■ Environmental Services | ■ ED Specialty |
| ■ Materials Management | ■ ED Reception | ■ Public Amenities |
| ■ Support | ■ ED Waiting | ■ Core Workstation |
| ■ Circulation | ■ Triage | ■ Security |
| ■ Public Areas | ■ ED Trauma | ■ Imaging |
| ■ Security | ■ Nourishment | |



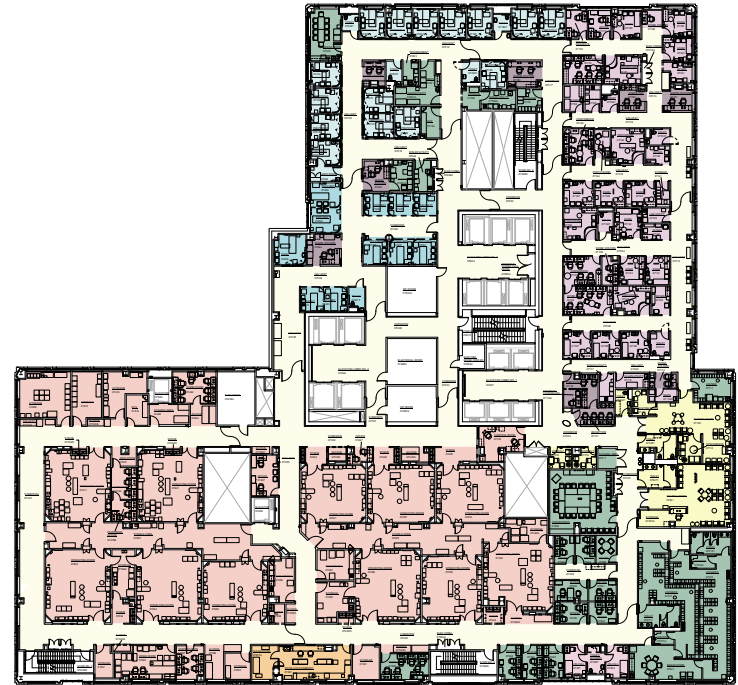
LEVEL 4 FLOOR PLAN













Diagnostic & Treatment Clinics



LEVEL 7 FLOOR PLAN

Operating Clinics

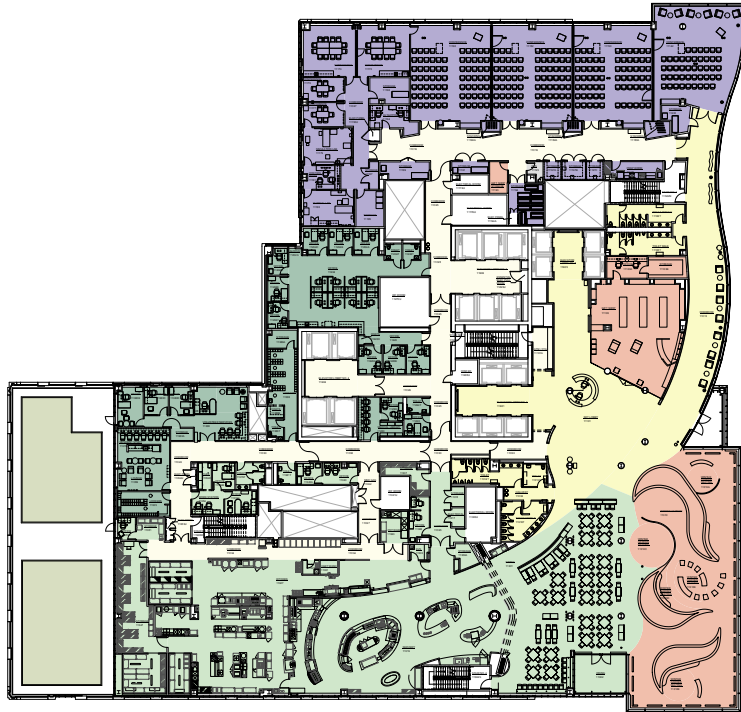


- | | |
|---|---|
|  Rehabilitation |  Procedural Areas |
|  Non-Invasive Diagnostics |  Pharmacy |
|  Circulation |  Staff |
|  Core Workstation |  Staff on Call Suite |
|  Public Areas |  PACU |
|  Clinic Ambulatory |  Prep / Hold |



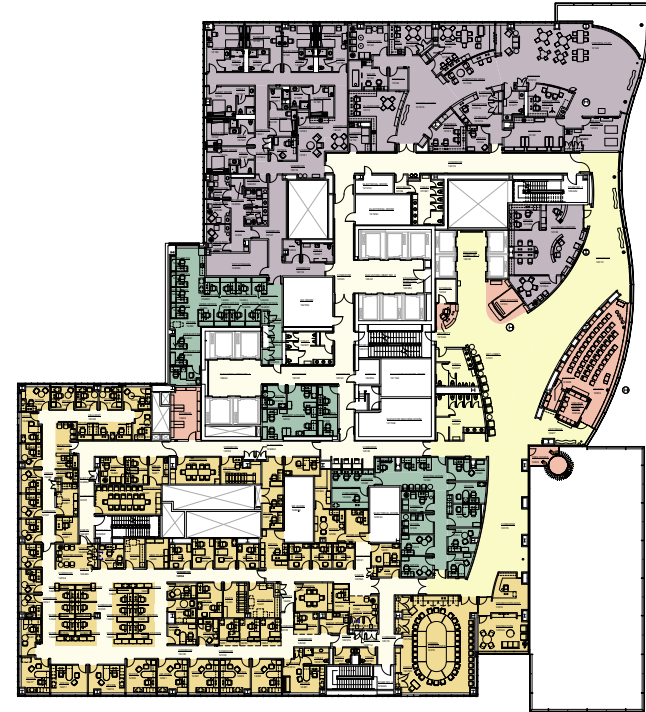
LEVEL 11 FLOOR PLAN

Public Spaces



LEVEL 12 FLOOR PLAN

Public Spaces

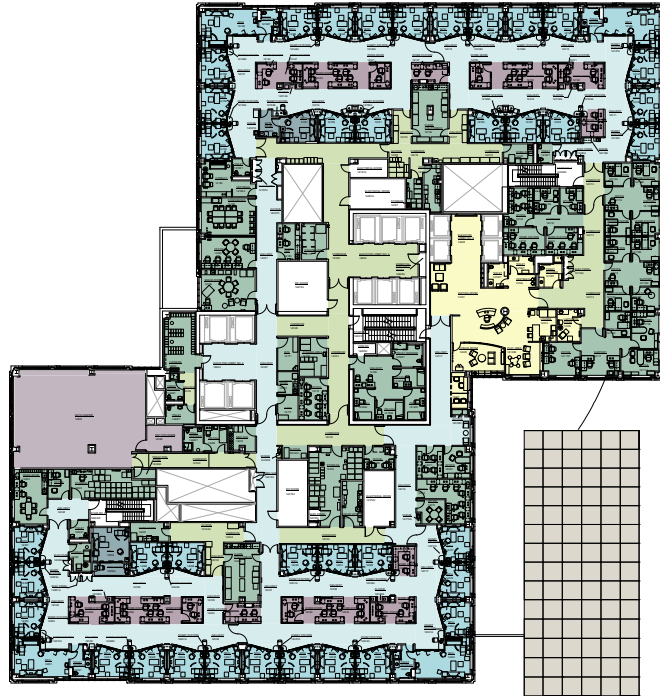


- Education & Conference
- Public Amenities
- Support
- Circulation
- Staff
- Public Areas
- Food Service
- Vegetated Roof
- Office
- Family Life / Kids Play Area



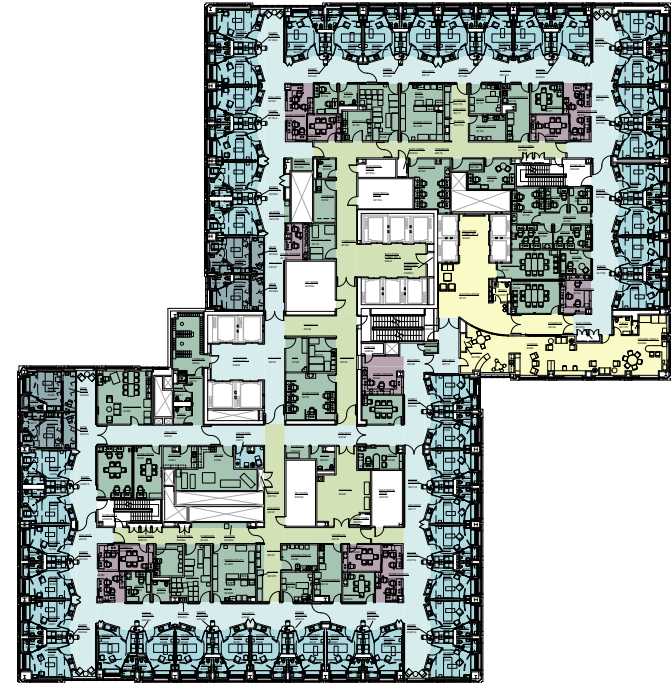
LEVEL 14 FLOOR PLAN

NICU

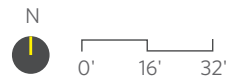


LEVEL 20 FLOOR PLAN

Typical ACUTE Care Unit



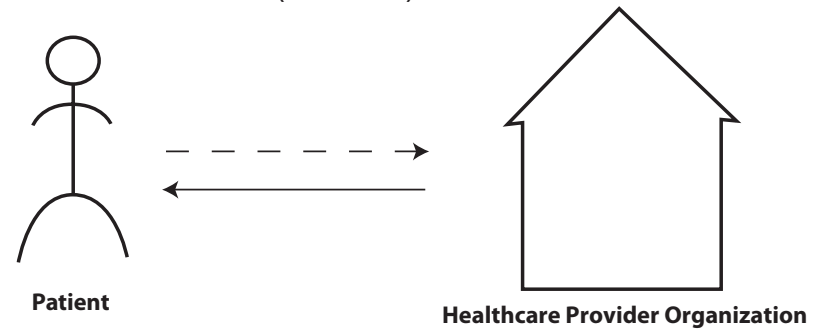
- Clinical Circulation
- Clinical
- Core Workstation
- Staff
- Staff Circulation
- Isolation
- Public Areas
- Data Center



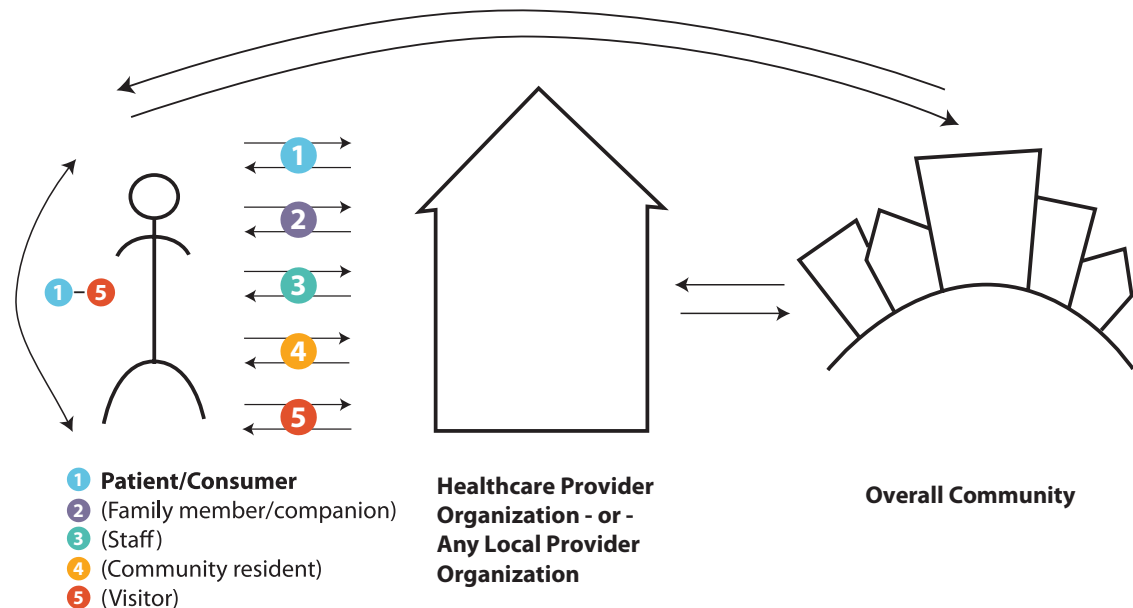
Exercising 'Health Design Leadership' to Cultivate a More 'Generative Space':

Toward a Care-Centered Model of Whole-Community Health, Healthcare and Quality of Life

The Status Quo: Instrumental Transactions
(1+ arrow)



The New Paradigm: A Place to Flourish
(15+ arrows)



A New Paradigm



REFERENCE The CARITAS Project

The following pages detail the arrowed interactions of Lurie Children's care-centered model.

1

Patient

IMPROVING HEALTH AND WELL-BEING

The goal was to give patients the kind of room they would have designed for themselves. From space for a family member to sleep overnight to a large exterior window with city view, or from a private bathroom to nooks for personal items, patients will feel more at home.



“ When I was sharing in room in the (old) hospital, I couldn't fully relax. I worried about disturbing my neighbor; I never knew when my roommate's caregivers and guests would be coming in and out. Dealing with a lot of noise and commotion is really hard when you are not feeling well. Private rooms help so much with the emotional aspects of healing. ”

ELLEN GORDON, PATIENT AND KIDS ADVISORY BOARD ALUMNA



GENERATIVE SPACE

Guiding Principle We will provide the ideal patient experience by creating designated / channeled flows to allow appropriate and non-threatening separation of visitors, patients and staff. **Design Response** Connections and hallways between and among patient areas are designed to provide on-stage and off-stage channels.

Anticipated Benefit Patient areas will be calm and quiet by being removed from the noise and chaos of service areas, thus providing a healing environment.

CALM AND QUIET

Separation of patient, staff and public circulation was a guiding principle that was established to ensure that the design of the building would create an environment that would support calm and quiet. Circulation on the floor is organized and separated, with “on-stage” corridors that run along the face of the patient rooms, and “back stage” corridors that allow staff access to support spaces away from view and hearing distance of the patient rooms. This functional separation helps maintain quieter and calmer patient and family areas.



Providing Comfort and Distraction

The hospital endeavored to create a unique, kid-friendly environment to promote healing, education, and discovery. A Kids' Advisory Board, made up of past and present patients, contributed their ideas and artwork for "their" new hospital. Not only is each patient room designed to look more like a bedroom that one would find in a residence, with storage nooks and Internet hook-ups, but spaces throughout the hospital provide both comfort and welcome distractions for children during their visit or stay.



Private Patient Rooms with Space For Family



GENERATIVE SPACE

Guiding Principle To deliver the ideal patient experience by providing spaces / areas for family involvement in the healing process. **Design Response** Patient rooms have accommodations for families, including sleeping accommodations, internet and work space, and storage for personal belongings. **Anticipated Benefit** With comfortable accommodations, families will spend more time in the hospital with their child and participate in their care. Private rooms with family amenities encourage and support family participation in patient care.

Research reveals that patients can get better sleep and recover faster in private rooms. Infection rates are lower due to lack of exposure to airborne pathogens from a roommate, and medication errors are reduced. Family space in the patient room enables parents and families to spend time with the patient. Families that participate in the patient's care, potentially aid in reducing falls because of their presence in the patient's room. All of the patient rooms in the hospital are private, and provide accommodations for families. The rooms feature a sleeper sofa at the window, sliding door for easy access to the toilet room, and a warm and calming color palette. Family space in the patient room encourages and supports families spending time with the patients.



Orientation and Connection to the Outside World

Studies show that exposure to natural light helps to reduce depression, intake of pain medication, and length of stay. Additionally, research reveals that when light levels change over the course of the day to mimic night and day cycles, infants show healthier developmental outcomes, such as improved sleep and weight gain. The planning of the building was developed to bring as much natural light into the hospital as possible. On the patient floors, corridors extend to the window wall providing views to the outside, and admitting natural light into the patient unit cores. The patient rooms have large windows, including most of the rooms within the Neonatal Intensive Care Unit, and all have access to natural light.

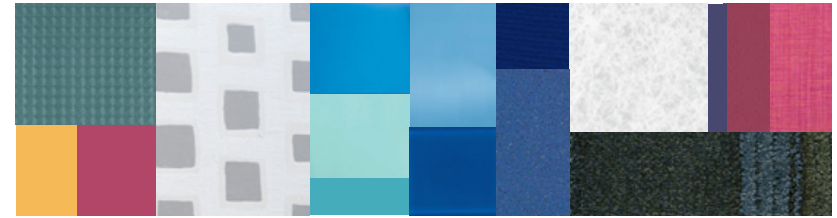


ENHANCING THE PATIENT EXPERIENCE

Inspired by Chicago itself, five color palettes were derived from the surrounding ecologies of the region—city, park, lake, woods, and prairie. These were further refined by input given by patients and their family’s desire for something colorful and bright. Intensity within each space has been adjusted according to function: brighter colors where distraction is important and stays are shorter; subdued tones that comfort and soothe where patients and families spend more time, such as inpatient areas. The final design concept considered how color could enhance the experiences of patients, families, and staff.

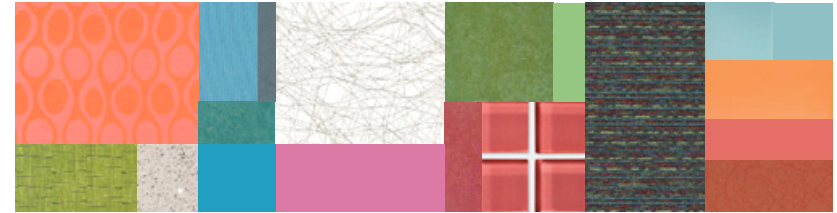
CITY

ACTIVE
VIBRANT
FUN
FAMILIAR



PARK

ACTIVE
FAMILIAR
SOCIAL



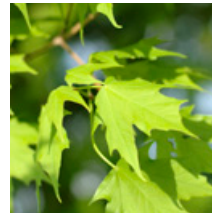
LAKE

CONTEMPLATIVE
BRIGHT
REFLECTIVE
SPIRITED



WOODS

DISCOVERY
MAGICAL
NATURAL
PEACEFUL



PRAIRIE

QUIET
CALMING
TRANQUIL



2

Family

PROVIDING ACCOMMODATION

Every amenity implemented within Lurie Children's emphasizes a core mission of providing family-centered care. When families are accommodated, they are better able to help in the healing process.



“ Psychologically, being in the hospital takes a toll on both children and their parents. But this place is just awesome. It has space and energy. You feel like you can breathe! You can just go ‘ahhhhh!’ There’s more room, natural sunlight, brighter colors, views of the lake. You really feel like you’re at home. Before the move I felt so drained. But going through the excitement surrounding the move rejuvenated me. I feel like I’m ready for anything now. ”

OKSANA PODILCHAK, MOTHER OF ONE-YEAR-OLD NAIA PENA (LEUKEMIA)



Sky Garden

The Crown Sky Garden, an interactive indoor garden full of light and color, sits off the Sky Lobby on the 11th floor.

PHOTOGRAPHER Dave Burk © Hedrich Blessing

Providing Access to Nature

Studies show that exposure to nature in different forms (viewing nature, gardens, being in nature, natural materials) have a calming and restorative effect on patients, families, and staff, thus reducing feelings of anxiety, sadness, anger, worry, and pain. The Crown Sky Garden is a two-story, glass-enclosed healing garden. High above the street on the 11th floor, this daylight-filled place featuring bamboo plantings, activity areas, and reclaimed wood benches provides a place to take time out and enjoy panoramic views of the city and of Lake Michigan. In addition, natural elements and materials are used throughout the interior design of the hospital.



Comforting Amenities

Studies show that the provision of places for play, respite, and positive distraction in the hospital can reduce stress and anxiety for patients, families, and staff. A variety of spaces for respite have been provided throughout the hospital including the Sky Café, and a Family Resource Center.



Places of Respite

A Family Advisory Board was consulted for suggestions about how the hospital could be designed to help families better support the healing process. As a result, Lurie Children's offers more spaces and services for families, including sleeping quarters in private patient rooms, family lounges, and a hotel-like sleep room.





Sky Café

The Sky Café is the primary dining facility and place of respite for families and visitors.

PHOTOGRAPHER Nick Merrick © Hedrich Blessing

CONTEMPLATIVE SPACE

The chapel is also a retreat for patients and families, as well as a place of sanctuary and privacy. The colorful and playful art glass panels, created by artist David Csicsko, provide the focal point of the space. These panels diffuse natural light from the exterior windows and afford privacy from the Prentice Woman's Hospital next door. The most important aspect of these art glass panels is to inspire hope and serenity to those who come to the chapel seeking inner peace. As part of the entry sequence into the chapel, there is a small room off to one side that was developed as a private retreat for families.



3

Staff

SUPPORTIVE WORK ENVIRONMENT

Recognizing that hospital staff members often work in a high-stress, emotionally charged environment, it was as important to provide improved care team stations and access to supplies and patients, as it was to provide elements that excite the senses and reduce fatigue.



“ Lurie Children’s is a true healing space not only for families, but for staff as well. It was designed to allow maximum access to sunlight, and there are beautiful areas for respite such as the Crown Sky Garden. ”

MICHELLE STEPHENSON, DNP, RN, NEA-BC, CHIEF PATIENT CARE SERVICES OFFICER AND CHIEF NURSE EXECUTIVE

Providing Decentralized Care Team Stations



GENERATIVE SPACE

Guiding Principle Work and care delivery spaces will facilitate teamwork by incorporating common multi-disciplinary team spaces. **Design Response** Care team stations are located at key locations on the floors and provide multi-use work space with open and private spaces. **Anticipated Benefit** Work space will promote communication and collaboration among care team members.

NICU Neighborhoods



GENERATIVE SPACE

Guiding Principle We will enable a teamwork approach to care and support roles. **Design Response** Care team at center of 11-bed neighborhood. Flexible touch-down space. **Anticipated Benefit** Supports team communication and collaboration. Supports team-family communication. Improved family satisfaction. Combines staff visibility of traditional ward model with all private rooms.

Acuity Adaptable Rooms



GENERATIVE SPACE

Guiding Principle Lurie Children's will provide the best level of patient care available by incorporating key rooms that will be at the front edge of standards for care. **Design Response** Acuity adaptable room meets the requirements of an intensive care room while providing the amenities of an acute care room. **Anticipated Benefit** Reduces the need to transfer patients. Accommodates patients with varying needs from acute to intensive care. Provides flexibility for room assignments, maximizing room utilization.

More than 800 Lurie Children's employees and physicians were involved in programming and design of the new hospital. The decision to go to all single patient rooms had an impact on nursing unit design; as the units become larger it impacts nursing efficiency, communication, and culture. The desire to reduce nurse travel time and walking distance, and to provide an optimal proximity of caregivers to patients, resulted in a decentralized nursing model. By creating recessed space rather than adding a vestibule, area within the patient room itself is preserved and allows caregivers to sit outside the room for charting or rounding without blocking the movement of a patient or equipment.

Infants who are subjected to less noise, get better rest, have a reduced risk of infection and have better outcomes in the private room environment. Research shows that cycled light is important to the physical development of neonates, and exposure to natural daylight provides a healthier, calmer environment. The NICU features all private rooms that offer a restful, family-centered environment for babies and their parents. It is organized into neighborhoods of eleven rooms that surround an open central care team core. This organization allows for visibility of patient rooms from the core and for visual and verbal communication between care givers, supporting the community culture of care that the caregivers enjoy in an open unit, while providing the private room environment for patients.

A study conducted on acuity adaptable rooms provide strong justification for adopting such rooms to reduce patient transfers. Improvements were found in several key areas including decreased patient transfers, reduced medication errors, and a significant reduction in falls. The Regenstein Cardiac Care Unit is designed as an admit-to-discharge unit that accommodates care for all cardiac and cardiovascular patients, whether pediatric or neonatal, regardless of acuity. Acuity adaptable patient rooms eliminate the need to transfer patients to another unit when their condition changes. Transfers represent not only an inconvenience for families and staff, but are a safety risk for patients.





GENERATIVE SPACE

Guiding Principle Having a teamwork approach to care and support roles. **Design Response** Creation of a consultation zone outside patient rooms by angling walls to create additional space at the corridor between patient rooms. **Anticipated Benefit** Interdisciplinary care teams will have space outside the patient rooms for rounding. This space will also accommodate impromptu consultation space outside the room for interaction among colleagues, caregivers, and caregivers to parents.

CORRIDOR CONSULTATION

A front porch concept incorporated into all the patient units provides a needed physical and emotional transitional space between the outside world and the patient room. The design of this space softens the impact of entering the patient room and results in a more welcoming environment. It is an important place away from the bedside, but close to the patient room, for caregivers to consult with a parent or another member of the care team. Apart from adding interest from the corridor itself, the angled fronts of the patient rooms improve visibility for the care team.

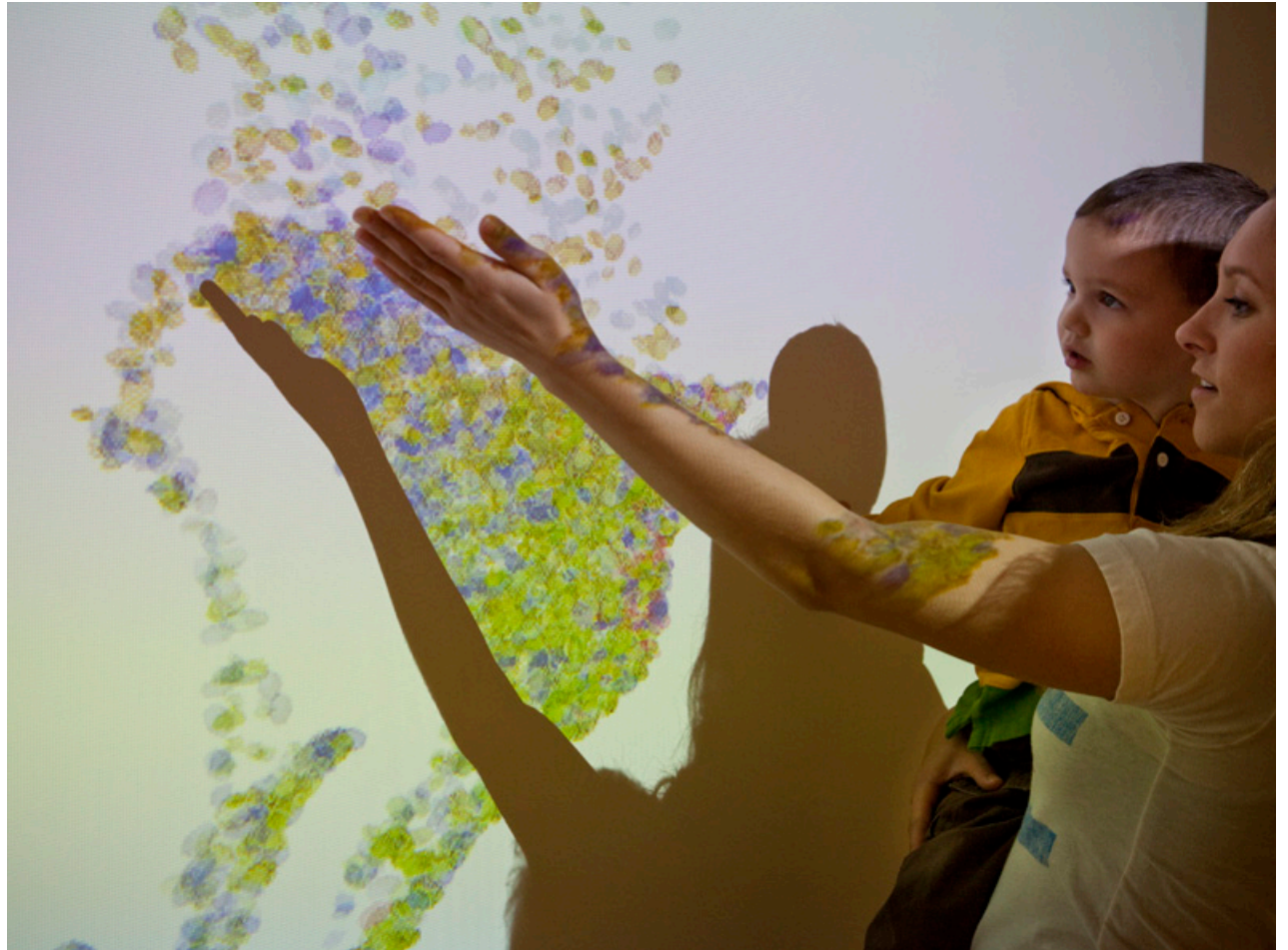


4

Community

CIVIC AND CULTURAL PARTNERSHIP

By partnering with leading cultural and civic organizations, design elements, exhibits, and other ideas were developed in creative collaboration to make patients' stays at Lurie Children's an uplifting, educational experience, that "Celebrates Chicago."



“ The Chicago History Museum’s installation of children’s art alongside our historic photographs invites families to discover new perspectives on the city. Lurie Children’s collaborative design process engaged Chicago’s top cultural institutions and inspired a vision that was carefully carried through to a delightful conclusion—introducing hospital families and visitors to the diversity and creativity of our beloved city. ”

TAMARA BIGGS, DIRECTOR OF EXHIBITIONS, CHICAGO HISTORY MUSEUM

John G. Shedd Aquarium

Thanks to a one-of-a-kind donation by the John G. Shedd Aquarium, near life-size models of a mother whale and her calf were raised 24 feet into the air and installed on the ceiling of the hospital's Pritzker Foundation Lobby during a Whale Raising Celebration on December 7, 2010. The sculpted whales, together weighing almost a ton, will be a permanent fixture on the hospital's first floor. They were temporarily in storage at The Field Museum, until they were brought out to be restored by the original artist, Victor Joyner, and raised by Chicago Flyhouse, a Chicago rigging company.



The Field Museum

The Field Museum, in each of its four glass cases on the first floor, features a scene from Illinois' prehistoric past: from an underwater reef to a tropical swamp, then a land ruled by dinosaurs and later, a home to Ice Age mammoths. The backlit scenes use lenticular printing technology to create a three-dimensional effect—mammoth tusks and ancient sea life appear to pop out at viewers. Accompanying the images are real fossils and fossil casts from The Field Museum's extensive collection. See 300-million-year-old plants and a huge tooth from the museum's resident T. rex, the world's largest and most complete Tyrannosaurus rex skeleton ever found.



John G. Shedd Aquarium

Shedd Aquarium's concept throughout the Kenneth and Anne Griffin Emergency Center transports guests to lively habitats around the world where unique and fascinating animals thrive. Envisioned to be both calming and fun, this engaging world juxtaposes a light-hearted graphic treatment of animal habitats with photorealistic animal images. Many of the animals are ones you can actually see at Shedd. Icy tones and watery blue colors evoke the natural habitats of the animals while creating an environment that is gentle and calming. Exam and waiting areas are fashioned after natural habitats that range from coastal kelp forests and the open ocean to colorful coral reefs and lush rainforests. These exhibits were brought to life by Aquamoon.



Art Institute of Chicago

With young patients and their families in mind, the Art Institute of Chicago selected 49 reproductions from their collection that reflect themes of home and family, animals and nature. Alongside these are kids' interpretations of these artworks. In addition to reproductions based on the collection, five artists designed original boxes, displayed in the care station desks at a child's eye level. The nature-themed waiting room proudly displays a three-foot high replica of one of the famous Art Institute lions, across from a full wall-sized reproduction of Georges Seurat's iconic *A Sunday Afternoon on the Island of La Grande Jatte*.



The Joffrey Ballet

Photographs throughout the 7th floor present the vitality and uniqueness of The Joffrey Ballet, captured through the eye of the camera. These fascinating photographic works convey the beauty, elegance, energy and creativity expressed through ballet as art. This collection gives the patients and visitors a glimpse of The Joffrey's repertoire.



Chicago Fire Department

It is not unusual to see Engine Company 98 fire trucks come and go from the busy Chicago Avenue Firehouse, located across from Lurie Children's. The customized 3,500-pound fire truck cab was built and donated by Pierce Manufacturing (Appleton, Wisconsin), in recognition of Children's Memorial Hospital's longstanding partnership with the Chicago Fire Department in caring for the region's children. The cab is accessible for children of all abilities and features fun and educational activities. The fire truck is positioned in front of a rendering of the historic Chicago Avenue Firehouse.



National Museum of Mexican Art

“Para los niños” (for the kids) is a vibrant, fired ceramic and mosaic mural created by young artists from the Pilsen neighborhood through the museum’s Yollocalli Arts Reach program. The main objective of the mural is to bring wonder and amusement to children, families and staff at Lurie Children’s while serving as a backdrop to a major donor recognition display. The colors of the mural were inspired by brightly decorated piñatas. The kids chose the piñata motif because it signifies the joy and enthusiasm that kids anticipate, taking turns trying to smash the piñata and share the scattered toys and candies as part of the celebration.



Chicago Cultural Alliance

A dynamic, multi-media installation celebrating Chicago’s rich cultural diversity resides on the 12th floor of Lurie Children’s. A collaborative effort between the Chicago Cultural Alliance and artist John Manning, the display incorporates a series of 15 flat screen video monitors mounted vertically on a 40-foot curved wall. A steady procession of images showcase the faces of children, reflecting the diversity of Chicago’s cultures and neighborhoods, interspersed with patterns derived from tapestries and fabrics integral to these cultures.



Adler Planetarium

For centuries, people from many cultures have used the stars as a backdrop for their stories, presented through the constellations. Adler Planetarium’s galactic perspective acts as a guiding light on the 14th floor, where the Neonatal Intensive Care Unit is located. This exhibit offers an experience of tranquil wonder, and a reminder that though sometimes we can’t see them, the stars are always there, in the skies above us.



Lincoln Park Zoo

On the 19th floor, the Lincoln Park Zoo invites exploration and enjoyment of the beauty of animals. The area features eggs that children can play on and in and another interactive area near the elevator bank features larger-than-life turtles that bring a storybook to life and represent the residents of the Nature Boardwalk at the zoo. The Paths of Discovery are a series of photos displayed in hallways that focus on animals in the zoo's collection from North and South America, Asia and Africa, and serve as ambassadors to those in the wild. The Discovery Boxes that are tucked into the care stations contain vignettes of the larger storybook murals, complete with three-dimensional representations of the animal characters that depict the lives of the animals at the zoo.



Chicago Symphony Orchestra and Lookingglass Theatre Company

The Chicago Symphony Orchestra and Lookingglass Theatre Company created content for the hospital's 15th floor, inspired by their 2010 collaboration on a production of Sergei Prokofiev's classic work for children, Peter and the Wolf. Through this story, patients and their families can discover the ways in which music and theatre can spark delight, inspire courage and offer comfort and refuge. Artworks on the 15th floor depict scenes and elements that were explored in the process of bringing the story to life: a wide meadow, a deep forest, the principal characters, musicians and instruments, notes and stories.



Redmoon Theater

Lurie Children's is the proud recipient of a 2011 National Endowment for the Arts Grant Award in the Visual Arts category in partnership with Redmoon Theater for this exhibit, through which Redmoon Theater aimed to create the same sense of community and hopefulness that is experienced in its renowned spectacles and events. The display, which aims to activate the viewer's imagination, uses images of whimsy, wonder and fancy to tell a simple, visual adventure. A dozen artists collaborated on over 100 original pieces of visual art, many of which are displayed at a child's eye level, including: an interactive dollhouse, imaginative hand-painted tableaux, three-dimensional dreamscapes and original illustrations and photos, all depicting a tale of unusual birds who go on a great journey to discover their inherent bravery.



5

Visitor

INTUITIVE SURROUNDINGS

At Lurie Children's, the goal was that visitors should feel just as welcome as patients as they navigate the hospital, following easy-to-understand signage, color cues, and themes on every floor.



“ It’s amazing! It seems very warm and kid-friendly. The wood floors, the colors they’ve chosen. How open things are. The glass doors that let you see in. Making it feel very welcoming and keeping people still connected. That can be hard to do in a big new space. They really did everything right. ”

EMILY WALVOORD, MD, PEDIATRIC ENDOCRINOLOGY & DIABETOLOGY, RILEY HOSPITAL FOR CHILDREN IN INDIANAPOLIS. (FORMER CHILDREN'S MEMORIAL HOSPITAL OF CHICAGO RESIDENT IN 1997, CHIEF RESIDENT 1997-1998.)



GENERATIVE SPACE

Guiding Principle To create themes for the public spaces that are both relatable and appealing to all. **Design Response** An expansive, transparent ground level lobby that draws in visitors with views to some of Chicago's cultural icons, even before they step inside. **Anticipated Benefit** Increased visitor comfort upon entering an environment that educates and engages, while it communicates hope and healing.

UNIVERSALLY PLEASING

One of the goals of Lurie Children's was to make the hospital inviting to all. Most important was its appeal to children, but recognizing that patients, families, and visitors could come from much farther away than the surrounding city, it was important to create an environment that would be universally pleasing. The decision was made to incorporate an overall theme of "What Makes Chicago Distinctive," into the design of the public and family spaces, given the city's culturally diverse make-up. To accomplish this, the hospital sought out partnerships with leading cultural and civic organizations throughout Chicago.



Providing Visual Clues

In children's hospitals it is important to provide visual graphic elements that the kid's can relate to and adults can use as well to help reinforce their travels through a building. Animal images were assigned to each of the public and patient floors. Each of the animal photographs is incorporated into a familiar scene of Chicago. This references feedback from the Kid's Advisory group's desires for their new hospital. More graphic elements of the animal images were incorporated into the signage system. Large photographic images of these animals are featured in their corresponding back wall of the elevator lobby at kid level.



Clear Destinations

To help with the wayfinding on more complicated clinical, D&T and Procedural floors a "ribbon" was designed to be incorporated into the flooring. Where you come to a destination there is an orange circle at the end of the ribbon. The ribbon colors are either blue two-tone or green two tone. The orange circles are also used alone at destinations such as a care team station, check out or check in station.



A Path of Discovery Along the Way

Another part of the theme of exploration and discovery that also becomes part of the circulation spaces is the "Path of Discovery". This is a system of a linear display band that has a protective cover over changeable visual insets. The Path of Discovery is located in the clinical public corridors on the lower part of the tower and also in the inpatient corridors.





GENERATIVE SPACE

Guiding Principle To provide an engaging space for visitors to meet, relax, or retreat in a restorative environment. **Design Response** A sky garden was located on the 11th floor, the transition level at which visitors must transfer to and from the inpatient Tower Elevators. **Anticipated Benefit** Visitors and/or families are likely to be more comfortable during their time at Lurie Children's, resulting in longer visits with patients, which is supportive of the healing process.

CONNECTION WITH THE WORLD OUTSIDE

Perched high up above the streets, on a sunlit corner of the 11th floor of Lurie Children's, the Crown Sky Garden offers visitors spectacular views and a memorable place to reflect over the cityscape and Lake Michigan below. This important public space within the hospital is easily accessible to all patients, families, and staff, but provides opportunities for both privacy and escape. Providing such a space in the hospital was an idea that was envisioned and developed through collaboration with cultural institutions, clinical and operational staff, and the design team.



A Role Model

With a strong commitment to patients, families, staff, and the community, Lurie Children's, along with their design and construction team, has created a hospital environment that conserves energy, reduces water consumption, uses renewable resources, and recycles waste. The building is serving as a role model for sustainable and high-performance design for both healthcare and non-healthcare facilities alike.





Sustainable Design

With a strong commitment to patients, families, staff, and the community, Lurie Children's, along with their design and construction team, created a hospital environment that conserves energy, reduces water consumption, uses renewable resources, and recycles waste. The team has used the best practices in the industry, as outlined by the United States Green Building Council (USGBC) and the Green Guide for Healthcare, to achieve a Leadership in Energy and Environmental Design (LEED®) Certified facility that is appropriate, manageable, and meaningful.

ALTERNATIVE TRANSPORTATION

The selected Streeterville site has pedestrian access within close proximity to the Chicago transit system, and will utilize existing parking facilities. Bicycle storage areas and shower facilities are provided on the project site to promote the use of an alternative environmentally-friendly transportation method.

NATIVE LOW WATER LANDSCAPING & GREEN ROOF

A palette of local plant species minimizes the need for maintenance, irrigation, and creates natural habitat for local wildlife. The new facility has maximized their green roof area with native and indigenous plants to promote natural habitation, and help support local species such as birds and insects by enhancing their ecological systems. Intensive green roofs and use of high reflective roofing materials reduce the building temperature, increase the lifespan of the roof, mitigate stormwater runoff and reduce the building's heat island effect.

WATER USE REDUCTION

Design strategies such as high-efficient fixtures and occupant sensors have been integrated into the new facility to reduce the overall water usage by 20%. The utilization of an efficient irrigation system designed for the facility will reduce landscape water consumption by 50%. The plantings selected are native or adapted vegetation with the ET Controller integrated to monitor the rainfall, the evapo-transpiration rates prevalent in the region, and soil moisture to adjust the amount of water that is distributed.

MEASUREMENT AND VERIFICATION

A Measurement and Verification Plan has been developed for the new facility. Its implementation will evaluate the building energy systems. Through stringent analysis, the M&V Plan will measure energy usage and track equipment performance. This technique will verify the hospital's overall energy consumption, and provide ongoing accountability of the building energy performance.

RECYCLED CONTENT & USE OF REGIONAL MATERIALS

Building components will use materials produced with recycled content, such as recycled steel for the structural framing. Regionally produced materials and products will be utilized where available to reduce energy costs associated with shipping.

FOREST STEWARDSHIP COUNCIL CERTIFIED WOOD

All concrete formwork and interior wood finishes use wood certified by the Forest Stewardship Council. This ensures the sustainable logging of trees and the use of plantation grown wood.

COLLECTION OF RECYCLABLES

Designated locations for collection of recyclables are provided throughout the building. The sorting of materials include paper, corrugated cardboard, glass, plastic, and metals.

INDOOR ENVIRONMENTAL QUALITY

Where appropriate, individualized thermal comfort will be provided with HVAC systems designed to maintain comfortable levels of air temperature, radiant heat, velocity, and relative humidity. All adhesives, sealants, paints, coating, and carpets used on the interior will be specified as low Volatile Organic Compound (VOC) materials. Fresh air monitoring will further ensure healthy indoor air quality.

INNOVATION

Accessed through the 11th floor Patrick G. and Shirley W. Ryan Family Sky Lobby, the Crown Foundation Sky Garden is a dramatic two story public space that offers patients, staff, and visitors a connection to the natural environment while engaging sustainable strategies such as EcoResin light walls, live greenery, and High Volume / Low Speed Fans.



Pebble
Project®

Benchmarking has been a consistent theme in the design of Lurie Children's, not only in the sense of its many firsts in healthcare, but just as importantly, in its ability to inform projects that will come after. Now that Lurie Children's is open, the implications and innovative features of this vertically-organized hospital are being studied as part of the Pebble Project.

The Pebble Project® is a unique collaborative where forward thinking healthcare providers learn, research and share information to create better healthcare facilities to improve patient and worker safety and clinical outcomes, while maximizing environmental performance and operating efficiency. The Pebble Project seeks to create a ripple effect throughout the healthcare industry by assisting healthcare providers through research and documented examples of where design has made a difference.

As a Pebble Partner®, Lurie Children's has made a commitment to do research on selected aspects of the building design. The hospital features many design strategies founded on research in pediatric and applicable adult settings.

Lurie Children's is a free-standing, 23-story, vertically organized hospital located in downtown Chicago. As such, a number of innovations in the medical planning of the building provide opportunities to do study and research as a Pebble Project that are unique to this hospital. A number of topics under consideration for study relate specifically to the stacked planning of the building which may prove influential internationally and have applications in high-density and flood-prone areas.

LURIE CHILDREN'S RESEARCH INITIATIVES

A study on the effect of the decentralized nursing unit design on nursing cohesion teamwork and efficiency.

A post-occupancy study examining the impact of the design on the hospitalization experience for children.

A study of hospital acquired infections in the vertical environment.

A study on the effectiveness of instruction in a virtual environment for preparing nurses for wayfinding in a new hospital building.

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