Cincinnati Children’s Hospital Medical Center

User Centered Design Principles and Tools to Improve Patient and Family Experience

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CCHMC by the numbers

- 592 bed tertiary care pediatric institution
- Outpatient visits – 1,000,000+
- Inpatient admissions – 31,000
- ED visits – 125,000
- Surgical procedures – 34,000
- Over 15,000 employees
- Ranked third in the nation among all Honor Roll hospitals in the 2014 *U.S. News & World Report* survey of best children’s hospitals
Our Mission

Cincinnati Children’s will improve child health and transform delivery of care through fully integrated, globally recognized research, education and innovation.

For patients from the community, the nation and the world, the care we provide will achieve the best:

- Medical and quality of life outcomes;
- Patient and family experiences; and
- Value

-- Today and in the future.
Improving Experience through User-Centered Design
User-Centered Innovation at Cincinnati Children’s

- **Implementation**
  - “Build to think & learn”
  - Making ideas tangible

- **Opportunity Generation and Ideation**
  - “Problem solve differently”

- **Project Initiation**

  - Frame the Challenge
    - Sponsor and team;
    - Knowledge Audit
  
  - Empathy
    - Analogous challenges
    - Bright Spots
  
  - Discovery and Inspiration
    - “Look at the world differently”

  - Prototyping to Learn
    - Pilots/PDSA’s
    - Measure
    - Scale
  
  - Insight Synthesis
    - Idea Generation

  - Making ideas tangible
Innovation Mindset

- Curiosity/Discovery
- Fresh eyes
- Possibility
- “What if …”
Innovation Principles

• Start with a deep understanding of customer (patient/family) needs and aspirations

• Leverage diverse collaboration

• Look for inspiration in unusual places

• Judgment and creativity cannot happen simultaneously

• Build to think and learn!
Empathy

The power of understanding and imaginatively entering into another person’s situation and feelings
Power of Storytelling
Insert PFE Video
Patient/Family Experience Design Day

Objective: Gain a deeper understanding of the CCHMC Experience through the eyes of our patients, families and staff, with specific focus on interactions and behavior.

Patients and families: Identify “essential” behaviors and what drives positive connection. What matters most at each stage of the process?

Employees: Understand their perspective and what the facilitators and barriers are for “being their best” when interacting with patients and families.
Structure:
- 50 patients/families
- 80 employees
- Professional facilitators for each group; employee facilitators at every table

Principles:
- Diverse points of view
- Collaboration
- Time for everyone to tell their story
- Broad themes and specific behaviors
- Leadership support
Journey Maps
Value all!

Patients  Staff  Support  Admin

We all sit at the same table
Overall Insights

- Great experiences result when we are “better together,” working in partnership with patients and parents, as well as with one another, in an environment characterized by caring and trust where ALL voices matter.

- Our standard should be to deliver the kind of care we would want for our own families.

- For patients and parents, feeling a sense of connection at a personal level and feeling valued contributes to good experiences, while feelings of fear, anxiety and disrespect can erode them.

- The same is true for staff, in terms of what enables them to be their best, and what gets in the way.

- All patients and parents, as well as staff, can identify times/moments they felt caring behaviors were at their best. Our challenge is to achieve “all staff, all the time” behaviors and the culture that supports them.
Implications

• We must define and embed caring behaviors within our hiring, training, coaching, managing and performance review processes in order to make them part of who we are.

• We must define and support staff to staff behavior that fosters connection and feeling valued, creating a culture of trust vs. fear and enabling teams to perform at their highest level.

• Leaders at all levels must adhere to the standards that are set and lead by example. Consistency and accountability, across levels and roles as well as across departments, divisions and institutes, is essential.
Care Promises  Taking Daily Actions to Live our Values

**Respect Everyone**
Treat others as they would like to be treated

When relating to patients, family members and colleagues, I will:
- Greet everyone warmly & sincerely:
  - Make eye contact & smile
  - Introduce myself and my role
  - Ask how they would like to be addressed
- Make a personal connection by learning something about the patient, family, and co-workers
- Listen without interrupting and give your full attention
- Demonstrate respect for others’ expertise, experience and contribution regardless of title or role
- Speak positively to and about patients, families, and co-workers; suspend judgment and avoid labels
- Acknowledge and thank others for their contribution

**Tell The Truth**
Be honest and transparent

When relating to patients, family members and colleagues, I will:
- Communicate what is happening and provide timely updates (delays, plan of care, results)
- Acknowledge what I don’t know, but assure that I will find an answer
- Admit mistakes and take ownership
- Provide constructive feedback and coaching in a timely fashion.
- Be a gracious recipient of feedback
- Voice concerns and encourage others to voice concerns/suggestions without fear of reprisal
- Support a questioning attitude

**Work As A Team**
Inspire and support colleagues, patients and families

When relating to patients, family members and colleagues, I will:
- Hold myself and others accountable for clear and complete communication
- Ask about expectations and ensure they are addressed
- Speak in words that are easily understood
- Invite ideas and input from all members of the care team and remember that every employee is a caregiver
- Share the load and act on opportunities to help others
- Follow through on my commitments
- Introduce my peers during hand offs and talk them up
- Provide timely information to all who need it
- Work toward common solutions and move forward; communicate openly and directly when conflicts arise

**Make A Difference**
Recognize that a service culture starts with me

When relating to patients, family members and colleagues, I will:
- Make a personal commitment to the service and safety of patients, families, and colleagues
- Demonstrate empathy, compassion, and sensitivity toward one another
- Move beyond task oriented interactions and demonstrate meaningful engagement
  - Pay attention to details
  - Learn what matters most to others
- Always conduct myself in a way that is sensitive to the presence of others
- Resolve problems promptly
- Lead by example and inspire the best in others
- Act on little things that can make a big difference
Results

Cincinnati Children’s Care Promises

• Interactive multi-disciplinary learning experience that covers:
  • Why Service is important
  • How Experience integrates with the big picture, rich history, and future direction of Cincinnati Children’s
  • What patients, families, and colleagues value and appreciate
  • Skill building
  • Time to reflect and share
Idea Generation
A formula for “Eureka”*

\[ E = \frac{I^D}{F} \]

(Experience = Inspiration, to the power of diversity, divided by fear)

*From Doug Hall, founder of Eureka Ranch
Why Brainstorm?

• Our mental models become natural way of seeing and explaining things

• Difficult to see ("like water to a fish")

• Hard to imagine any other way

• Locks us into status quo thinking – *without us really knowing that it is happening.*

• Innovation = Breaking the rules; leaving the valley

Credit: Paul Plsek; Edward de Bono
Pipeline of Lead Ideas

In Testing or In-process
Added
System-wide interest

Optimized web page
- What to expect
- How to prepare
- Who we are

Electronic (real time) Indicator of patient wait time/“Clinic Flow Board”

Adopted or ready to spread

“Smart” scheduling: History based

Mobile Ortho Van

Provider time tracking board

Optimized add-on Strategy
- Strategic scheduling
- Block Timing

Shorter Term

Full Service Ortho Center

Dedicated Ortho schedulers

Resident/attending shared exam

Comprehensive Appointment Itinerary
- Brochure

Cross Training Opportunities

Pager/text “alert” system

Longer Term

Escalation Plan

One stop check-in
- Kiosk optimization
- Pre-register online

“Clinic Coach”
- Concierge role

Comprehensive Appointment Itinerary
- Brochure
Concrete focus
How to improve packaging?
Contextual focus
How to make life easier
Reframing the Waiting Experience

How do we think about waiting?

How do patients and families experience waiting?
The 360 Degree Experience of Waiting

**Time**
- Value/respect my time
- Make it easier for my child
  = Minimize the wait

**Processes**
- Easy?
- Intuitive?
- User friendly?

**Communication**
- Timely updates on status?
- Easy to understand what’s happening?

**Environment**
- Clean?
- Comfortable?
- Organized?

**Culture**
- Welcoming?
- Helpful?
- Reassuring?
- Calm?

**Activities / Distractions**
- Available?
- In working order?
- Engaging?
- Unique?
Reframed Opportunity

• Reduce/eliminate Wait Time
• Make non-clinical time “value added” time
• Build comfort and connection
Imagine a new process: 4Ws Table

<table>
<thead>
<tr>
<th></th>
<th>Current thinking…</th>
<th>Potentially innovative alternatives…</th>
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</thead>
<tbody>
<tr>
<td><strong>Who?</strong></td>
<td>Physician/radiologist/Ortho tech</td>
<td>Physician/radiologist/Ortho tech</td>
</tr>
<tr>
<td><strong>Does? (or How?)</strong></td>
<td>Assesses and treats injury</td>
<td>Assesses and treats injury</td>
</tr>
<tr>
<td><strong>When?</strong></td>
<td>At appointment 8 – 4</td>
<td>At time of injury</td>
</tr>
<tr>
<td><strong>Where?</strong></td>
<td>Orthopaedic clinic</td>
<td>At place injury occurs</td>
</tr>
</tbody>
</table>

Source: NHS
Red Team Concept #1
Mobile Clinic

- Hoxworth Blood Mobile, Mobile Mammography
- Clinic on the Go
- Bring CCHMC to Out Patients
- Reduce Burden on the Clinic
- Mobile
- Fun
- Clinic in the Park
- Flexible
- Solution to Care Access
Mobile Clinic

- **Scheduled appointments:**
  - The clinic schedule could be built for appointments within the same geographical location.
  - The van could then be parked at a central location that would best serve that schedule.

- **Walk-ins:**
  - Most likely scenario would be to take van to locations where there is a high risk of orthopaedic injury such as soccer tournaments.
Inspiration via Experience Visits

• External Site Visits:
  • Nordstrom’s
  • Apple
  • Cincinnati Children’s Museum

• The Customer Experience Visits were an opportunity for the groups to rethink how and to what degree customer service is provided.
Cincinnati Children’s Museum

- CCM was a great example of how parents and children can interact together in a fun and positive environment.

- The experience at the Museum is holistic.

- The Children’s Museum engages all the Senses (Sight, Sound, Taste, Touch, Smell).

- Museum Guides make interventions to help parents and children engage and overcome disconnect if some exists.
Apple Store

- Surprised
- Not good service (15 min)
  - @ Apple
- Perhaps a different
  - Customer service experience
    - Weekday vs. weekend?
- Same sales person throughout - nice
  - Rung up on iPad
- Others greeted immediately/wait w/cool things
  - Inconsistent experience
  - Bounced around unclear
- Needs being met depends
  - Upon person
- Products sell themselves
Nordstrom’s

- Greeted, helpful immediately
  - Responded to his needs
  - Offered ideas on the spot (e.g. clothes in freezer)
- Anticipating needs & wants
  - Listen to needs, don’t assume
  - (e.g., did you enjoy wrapping your gift?)
- Amazed at how well they read people
- Compassion
Refreshed Clinic Waiting Room

Place to do work/homework/activities

Fun, engaging

Building connection

Warm, welcoming, “hospitality”
Create a Digital Solution

- Provide a map for entertainment/waiting spaces within the hospital.
- Provide information about clinic providers and process
- Provide access to educational materials
- Include a survey for real time feedback
Welcome!
What to Expect During Your First Epilepsy Visit

On your first epilepsy surgery visit, our staff will:

- Meet Your Neurosurgeon
- Review any imaging studies including MRIs, CT Scans, or x-rays
- Discuss your treatment options

**IMPORTANCE OF IMAGING STUDIES**

The surgeon will evaluate your imaging studies to help diagnose your condition and determine the most appropriate treatment plan.

**OUR TREATMENT APPROACH**

Our surgeons believe the least invasive approach to a problem is probably the best. They will provide you with conservative treatment options first if it might help your medical condition. This may include lifestyle changes, physical therapy or pain management. When surgery is recommended, our surgeons take a minimally invasive approach that greatly reduces recovery time and requires only a short hospital stay.

Any treatment options that require you to see another provider will be arranged by our office. You will either receive a script to bring to the provider or our referral coordinator will contact them directly to make arrangements.

If it is determined that surgery is your best option, we will schedule it for you and arrange your pretest with the hospital. Prior to leaving our office, you will receive information about the surgery you will be having. You may also talk with our billing staff to review your coverage and we will obtain pre-authorization for your surgery prior to your surgery date.
Waiting Room Experience Results

% Responding Top 2 Boxes in Ortho Clinic
Q3 = I had a positive experience in the waiting room.
Prototyping—building to think **and** learn
Whiteboards serve as a tool to integrate experience, safety and partnering with patients and families

Objectives:

• Standardize Whiteboard communication across the system

• Interface whiteboards with Patient Services Initiatives (Hourly Rounding, Bedside handoffs)

• Support operational excellence, Partnering with Patients and Families
Whiteboard Tour

NICU
Whiteboard Tour

A5 BMT

A7CI
Whiteboard Tour

A5N Hem/Onc

<table>
<thead>
<tr>
<th>Care Giver Info</th>
<th>Care Team</th>
</tr>
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<tbody>
<tr>
<td>Name</td>
<td>MD</td>
</tr>
<tr>
<td>Phone</td>
<td>Nurse Practitioner/</td>
</tr>
<tr>
<td>Name</td>
<td>Fellow</td>
</tr>
<tr>
<td>Phone</td>
<td>Care Manager</td>
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<tr>
<td>Name</td>
<td>Social Worker</td>
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<td>Phone</td>
<td>Dietitian</td>
</tr>
<tr>
<td>Name</td>
<td>OT/PT</td>
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<tr>
<td>Phone</td>
<td>Teacher</td>
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Discharge Goals

<table>
<thead>
<tr>
<th>Homecare</th>
<th>Line Access</th>
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<tr>
<td>Company</td>
<td>Type of Access</td>
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<td>Scheduled Teaching</td>
<td>Dressing Change Due</td>
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<td>Line 1</td>
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<td>Line 2</td>
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<tr>
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<td>Cap Change Due</td>
</tr>
<tr>
<td></td>
<td>Line 1</td>
</tr>
<tr>
<td></td>
<td>Line 2</td>
</tr>
</tbody>
</table>

Transitional Care

Gages Room

January 6th, 2014

Charge RN: Pat
RN: Shauna
RT: Kathy
PUL: Kathryn

Gage's grandma is going to my 2nd care giving
Her number is 859-912-8912

Do NOT use wipes on Gage.
4x4s only please!
Whiteboard Tour

B5 PICU

A6N
Whiteboard Audit Learnings

Significant variation across 17 units audited

- Size - small (18 x 22) to large (24 x 36)
- Portrait vs. Landscape
- Location in room
- Template vs. no template
- Content
- Degree of use
- Unit engagement
Whiteboard Prototyping

The whiteboard design process included:

- Parents
- Front line staff
- Physicians, nurses
- Improvement science leaders
- Design thinking experts
- Graduate design student

Four teams of four created the “ideal” whiteboard in a two hour workshop
Early Prototypes
Concept to Reality
Standard Process

- Family educated and encouraged to partner upon admission to unit
- Patient name written to reflect what they like to be called
- Names of staff updated every shift to reflect most accurate/current care team
- Patient plan/goals for the day updated daily, upon medical team rounds
- Each unit will determine standard roles for updating whiteboard
- Whiteboards will be assessed for accuracy during leader rounding and entered into iRounds
An Early Win – A4South

- Improvement project focused on ensuring the plan for the day was clear to the family
- Redesigned medical rounds to meet with family in the patient room using new whiteboards
- Results improved when the whiteboards were installed
Family Engagement

“I like seeing the plan up there, in case I miss rounds I fee like I already know what’s going on that day.”

-Mom of patient
Family Engagement

“All About Me:
(Todo sobre mí)

labs - both normal!

“It’s important for them to know what he likes and that he’s more than just a patient.”

- Grandparent
“I really like knowing all the names of all the different people, it helps us keep track, and to know who our team is. I also like knowing that they have my name and phone number when I’m not here.” - Family member
Tools for Staff

Why Whiteboards?

- Excellent communication is not only a fundamental service quality, but is also a proven best practice to improve safe medical care and build true partnerships with patients and families.

- Whiteboards are an easy way for care providers, patients, and families to communicate in a way that is reliable, accurate, and timely. If white boards are updated regularly, they can be a useful tool to help keep patients and families informed and also create a unique way for us to better partner with patients and families.

- Whiteboards are as much about safety as they are experiences. Whiteboard communication is not only about keeping patients and families informed, it is about building trust and accountability as we involve them as team members.

- Patients and families who are kept informed about their care are more likely to understand and comply with treatment. Understanding medical treatment is vital to a satisfactory care experience and drives higher quality safe care. It is our duty to partner with them in creating and maintaining their plan of care. Whiteboards are an easily visible way to achieve this cooperation.

Guidelines for Using Whiteboards

- On admission to the unit, the family should be educated about whiteboard and given permission and encouraged to use this as a tool for them and the patient to communicate with us during their stay.

- The child’s name should reflect any nicknames, and parent names and contact info should be recorded.

- Today’s date and the names of the hospital care team should be updated every shift.

- Names should always reflect the most accurate information; updates should occur every shift for nurses and PCAs, and when applicable for physicians, residents, and other care team members.

- The patient’s plan for the day should be updated regularly (at least every day and possibly more frequently if the plan changes before, during, or after rounds). Each hospital unit will determine who is responsible for updating the whiteboard (bedside RNs, MDs, etc).

- White boards will be assessed for accuracy during leader rounding and information entered in iRounds for tracking.

Whiteboards Can Help Improve These Patient Experience Questions:

- How often did providers seem to be up-to-date about all of the care your child was receiving while in the hospital? (Always response is intended goal)

- How often did providers keep you informed about what was being done for your child? (Always response is intended goal)

- How often did your child’s doctor/nurse explain things in a way for you/your child to understand? (Always response is intended goal)

- Things that a family might know best about a child include how the child usually acts, what makes the child comfortable, and how to calm the child’s fears. During this hospital stay, did providers ask you about these types of things? (Yes, definitely* response is intended goal)

A3S Information:

This space is intended for unit customization. Typically the unit’s shared governance councils will decide how to use this.

All About Me:

This information is intended for patient and family use, for communicating what matters most to them. Please educate families upon admission to the unit and continue to encourage families to use this space and the space below. This is their space.

A3S Information:

This space is intended for unit customization. Typically the unit’s shared governance councils will decide how to use this.

Family Questions & Notes:

Please educate and encourage families to use this space to document questions for the care team or notes for themselves.
Questions?