Speaker Introduction

Joan Saba,
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Conflict of Interest

Joan Saba

Has no real or apparent conflicts of interest to report.
Agenda

1) Changing Patient Demographics
2) Learning from Other Industries
3) New Technologies in Healthcare Design
4) The Redesigned Patient Room of the Future
Learning Objectives

• Outline the influx of new types of patients into the American healthcare system, including their unique needs and the primary reasons they seek treatment.

• Discuss how these changing patient demographics require a new approach to healthcare design that better integrates sensors, VR and projection mapping into the design process.

• Describe how healthcare architects are taking lessons learned from corporate workplaces for tech companies and beginning to apply insights into the design of healthcare spaces.

• Explain how these demographics and tools are leading to the creation of more effective healthcare environments, including patient rooms that promote socialization and rest.
An Introduction of How Benefits Were Realized for the Value of Health IT

A “Booming” Millennial Population
There are now more Millennials in America than Baby Boomers, 83.1 million vs. 75.4 million.

Unique Patient Needs
More Millennials rely on social healthcare referrals from friends than Boomers (70% to 41%) and more turn to technology for health information (54% vs 39%).

1 – U.S. Census Bureau, Millennials Outnumber Baby Boomers and Are Far More Diverse, Census Bureau Reports, June 25, 2015
2 – Becker’s Healthcare, Survey reveals 3 differences between millennial & baby boomer healthcare consumers, August 31, 2015
60-Minute Lecture

- The speaker must provide a 45-50 minute PowerPoint presentation (approx. 25-30 slides). Please do not exceed this time limit.
- Leave 10-15 minutes at the end for Q&A
The Patient Room of the Future
Designing for Baby Boomers and Millennials
The healthcare landscape is evolving
Patients, technology, and processes
Baby Boomers

- Ages 52-70
- Transitioning out of the workforce
- Stationary technology

Leading Causes of Hospitalization
- Heart disease and pneumonia

Millenials

- Ages 16-36
- Transitioning into the workforce
- Mobile technology

- Pregnancy and childbirth
Common themes shared by both generations:

- Cost-conscious
- Social-minded
- Family-oriented
By 2020 over 50% of workforce will be millennials
Luckily, we have new tools and processes to help address these changes
The team created a streamlined surgical flow to allow parents to stay with their children as long as possible.
Patient Lobby

Surgery Suite Entrance

Induction Rooms

Surgery

Recovery

Patient (Child) Journey

Parent Journey
Average Calories Burned: 0.00
Average Coworkers Seen: 0.3
find a spot that’s juuuuust right
RAPID PROTOTYPING
Digitally Augmented Rapid Prototyping
REAL-TIME FEEDBACK TO MOCKUP USERS
Patient Room Area: 282sf
Toilet Room Area: 67sf
Wall Shift Delta: 45sf
Delta x 500 rooms: 22,500sf
Delta x $300/sf $6,750,000
Process → Design
VIRTUAL REALITY
Architects deal with complex visual data sets such as renderings and drawings.

But getting those files into the hands of clients is difficult not only because of their size, but also because they are not often legible to people outside the profession.
We are focused on filling the massive gap between meetings and email...

Meeting

- Productive
- Collaborative
  - BUT-
- Limited Participants
- Time zone Considerations

Email

- Broader Participation
  - BUT-
- Responses are Documented
  - BUT-
- Lower Fidelity

more inclusive and efficient than a MEETING

more immersive and enjoyable than an EMAIL
**Visual Vocal Design Process**

- **Schedule internal meeting**
- **Internal design meeting**
- **Finalize preliminary drawings**
- **Schedule design review meeting with stakeholders, meet and provide edits and repeat**

Upload to Visual Vocal, stakeholders can review at their convenience and provide feedback to inform future drawings.
1-2 User Groups of providers and patients
Virtually endless user group
Distributed to any location and any time zone
NEXT GENERATION
Common themes shared by both generations:

- Cost-conscious
- Social-minded
- Family-oriented
Tapping into the Micro Apartment Movement

Our approach learns from Millennials and Baby Boomers who are focused on efficiency through convertibility as a new design ethic.
In a universal room, 20-30% of the overall floor area is set by ICU bed clearances that are often not utilized.

A high-performance utilization strategy converts often-wasted floor area into an amenity zone that could directly improve satisfaction.
Exploring a Configurable Family Care System

The micro apartment approach to footwall design
Compact Mode
Maintains required clear floor area around patient bed for ICU level care
Overnight

Enabling a good night’s sleep for the patient and their loved ones
Workplace Mode
Allowing patient and family to stay connected
Family Dining
Room for everyone at the table
Now that hospitals are actually growing and serving nutritious food, let’s enjoy it together.
PROJECTION MAPPING
What's next?
A Summary of How Benefits Were Realized for the Value of Health IT

**BETTER UTILIZATION**
20%-30% of space within a universal patient room goes unused by non-ICU patients; new tools ensure greater value/stewardship

**BETTER CARE**
New patient room design supports both the physical and emotional needs of the patient, creating a more holistic healthcare experience
Questions

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