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*An Independent Chapter of the American College of Healthcare Executives*

TWO VITAL INDUSTRY EVENTS CO-LOCATED MAY 18-20, 2016 | GEORGE R. BROWN CONVENTION CENTER | HOUSTON, TEXAS

# Change Readiness: How to Design Facilities in an Ever-Changing Health Policy

An ACHE Face-to-Face (Category I) Session – 1.5 Hours CEUs

**Moderator:** Upali Nanda, PhD

**Panelists:** Bitu Kash, PhD

Pamela Redden

Paul McCleary

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# LEARNING OBJECTIVES

- Drivers of Change and Developing Trends
- Beyond the “New and Shiny” in Trends - What is Sustainable and Adaptable
- Relevance of Patient Perceptions to Facility Bottom Lines
- Aligning Owner, Architect and Contractor Interests
- Designing a Robust Framework for the Future
- Change-Readiness Versus Futuristic Thinking



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# INTRODUCTION

According to 2006 to 2013 Medicare claims data:

## Healthcare access by Medicare beneficiaries

- Decreased by **17%** for inpatient care
- Increased by **33%** for outpatient care

A 2014 survey projects that over the next 3 years, construction in:

- **Ambulatory Facility is projected to grow by 71%**
- **Medical Office Buildings by 53%** (*higher than inpatient tower construction projected at 41%*).

*There is a shift towards outpatient care governed by changing policies, payer models, population health focus and over-all, a new breed of “patient-consumer”.*

*In the midst of this wave of change we read many narratives on what the “future” holds. But the future cannot be seen. How can we design facilities that rely not on a crystal ball, but on a robust framework that allows us to withstand change?*



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# BIOGRAPHY - *Panelist*



**Upali Nanda, PhD**

**Dr. Upali Nanda** is the Vice President and Director of Research at HKS Inc., a global architectural firm. Her research ranging from visual art and neuro-architecture, to safety, efficiency and hard ROI studies, has resulted in numerous publications and presentations, including peer reviewed journals such as Environment and Behavior, Journal of Emergency Medicine, Health Environments Research and Design Journal, and Intelligent Buildings Design Journal. Her research has also been featured in articles in the WSJ, and Harvard Business Journal. Her work focuses on human perception, health and wellbeing; and the measurable impact, and immeasurable value, of design for humans and organizations. Her doctoral work on “Sensthetics” has been published as a book available on Amazon.com. In 2015 Dr. Nanda was

recognized as the researcher, in the top 10 most influential people in Healthcare Design, by the Healthcare Design Magazine.

Dr. Nanda is also the Executive Director of the Center for Advanced Design Research and Evaluation, a 501c3 non-profit research organization committed to building research to drive innovation in practice. She serves on the advisory council of the Academy of Neuroscience for Architecture, the Academy of Architecture for Health Research Council, and the EDRA CORE program. She has a PhD from Texas A&M University, an M.A. from the National University of Singapore and a Bachelor in Architecture from the School of Planning and Architecture, India.

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# BIOGRAPHY - *Panelist*



**Bit A. Kash,  
PhD, MBA, FACHE**

**Dr. Bit A. Kash** has been the Director of the Center for Health Organization Transformation (CHOT) since April 2014. The CHOT is an industry-university cooperative research center (I/UCRC) funded by the National Science Foundation and health organizations to conduct research supporting major management, clinical, and information technology innovations in healthcare. As Director and PI of CHOT, Dr. Kash conducts research to support the implementation of evidence-based transformational strategies within healthcare organizations. Dr. Kash's research model relies on the knowledge and experience of healthcare leaders to guide academic research. This cooperative model ensures that the research is both meaningful and applicable to the healthcare industry and provides immediate decision support for CHOT's Industry Members, such as Texas Children's Hospital, the American Society of Anesthesiologists, and Main Line Health. Dr. Kash's areas of research include organizational capacity for change and transformation, of innovative models of care in primary care and surgical settings, and healthcare strategic planning and management. Her most recent research project, funded by the National Science Foundation's Center for Health Organization Transformation (CHOT), focused on perioperative care coordination and identification of sources of competitive advantage in primary care networks using resource based theory (RBT). Dr. Kash's research has been funded primarily by NSF, AHRQ, NIH, industry, and the Texas State Department of Health and Human Services. Dr. Kash is also the Editor of the Journal of Healthcare Management.

Bit A. Kash is an associate professor at Texas A&M University, Department of Health Policy and Management and Joint Associate Professor at the College of Medicine's Department of Internal Medicine. Dr. Kash received a Master's in Business Administration from The Citadel in Charleston, SC. Dr. Kash is also a fellow of the American College of Healthcare Executives (ACHE) and an active member of AcademyHealth, the Gerontological Society of America, and Academy of Management.

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# BIOGRAPHY - *Panelist*



**Pamela H. Redden, MS,  
BSN, RN, EDAC**

***Pamela Redden*** currently serves as the Executive Director, Clinical Planning and Development, at the University of Texas at Austin, Dell Medical School. She is project leader for a 243,000 square foot, new construction outpatient center, where collaborations will reimagine the entire health care process, focusing on a human-first perspective. Clinical services will include integrated practice units, ambulatory surgery center, urgent care, and supporting services such as imaging, pharmacy, and lab.

With extensive clinical and administrative healthcare experience, including 18 years in clinical and facility planning for MD Anderson Cancer Center, she has had responsibility for operational/ activation planning, design support, staff transitions, activation/ occupancy, and post-occupancy settlement of facility projects.

Additional project experience includes the planning and activation of over 2 million sf of healthcare facilities, including new outpatient and inpatient facilities, redevelopment of existing clinical space, expansion of imaging and perioperative services, and expansion of the Children's Cancer Hospital at MD Anderson. She is a founding member and former Vice President of the Nursing Institute for Healthcare Design.

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# BIOGRAPHY - *Panelist*



**Paul McCleary**

**Paul McCleary** is Vice President – Business Development for MEDISTAR CORPORATION, a full-service real estate development company based in Houston, Texas and specializing in the design, development, financing, acquisition and construction of hospitals, post-acute care facilities, integrated medical plazas, medical office buildings, and related buildings for the healthcare and life sciences industries nationwide.

His career spans 29 years in the commercial design, development and construction industry, with an emphasis on business development, marketing and strategic planning. He works closely with MEDISTAR's Founder and CEO, Monzer Hourani, P.E., on a wide variety of special projects for Medistar and supports several aligned providers, including Bay Area Regional Medical Center (Webster, Texas), Bay Area Rehabilitation Hospital (Webster, Texas) and Cumberland Surgical Hospital (San Antonio, Texas).

Prior to joining MEDISTAR, Mr. McCleary served in marketing and business development capacities with consulting firm Mulhauser/McCleary Associates, program management firm Boyken International (now Hill International) and global construction company Skanska, at which he was a member of its National Healthcare Center of Excellence.

He is a graduate of the Plan II Liberal Arts Honors Program at The University of Texas at Austin and earned an MBA in Marketing and Management at The University of St. Thomas in Houston, Texas. He is a Life Member of the Ex-Students' Association of the University of Texas (Texas Exes), Life Member of the Houston Livestock Show & Rodeo and longstanding member of the American College of Healthcare Executives (ACHE).

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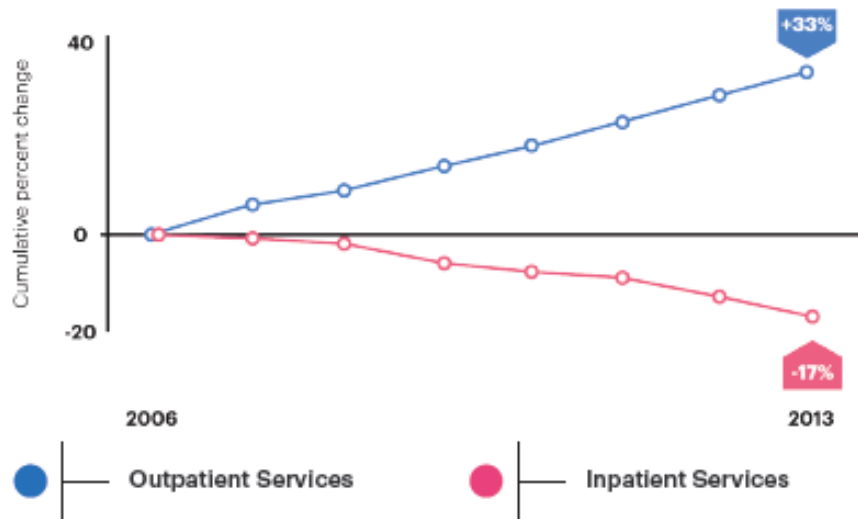
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## THE RISE OF OUTPATIENT SERVICES



Adapted from preliminary data from MedPac [3]

## GROWTH IN AMBULATORY CONSTRUCTION PROJECTS IN THE NEXT 3 YEARS



- 1. Ambulatory Facility, 71%
- 2. Medical Office Building, 53%
- 3. Inpatient Tower, 41%
- 4. Specialty Hospital, 15%
- 5. Post-Acute Facility, 12%



Information Source: Advisory Board [2]



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# 5 DRIVERS: DRIVING CHANGE



01

## SYSTEM

more access.  
more accountability.



02

## PATIENT

chronic conditions, consumer expectations.



03

## PROVIDER

physician shortage,  
extender/team increase.



04

## FIELD

advanced diagnostics,  
precise & personalized  
medicine.



05

## TECHNOLOGY

technology boom, big data and  
sophisticated construction



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# Q?

- **What is the impact of changing health policy and reimbursement on outpatient?**
- **What are your reactions to these 5 drivers, which one do you think is the strongest driving force?**

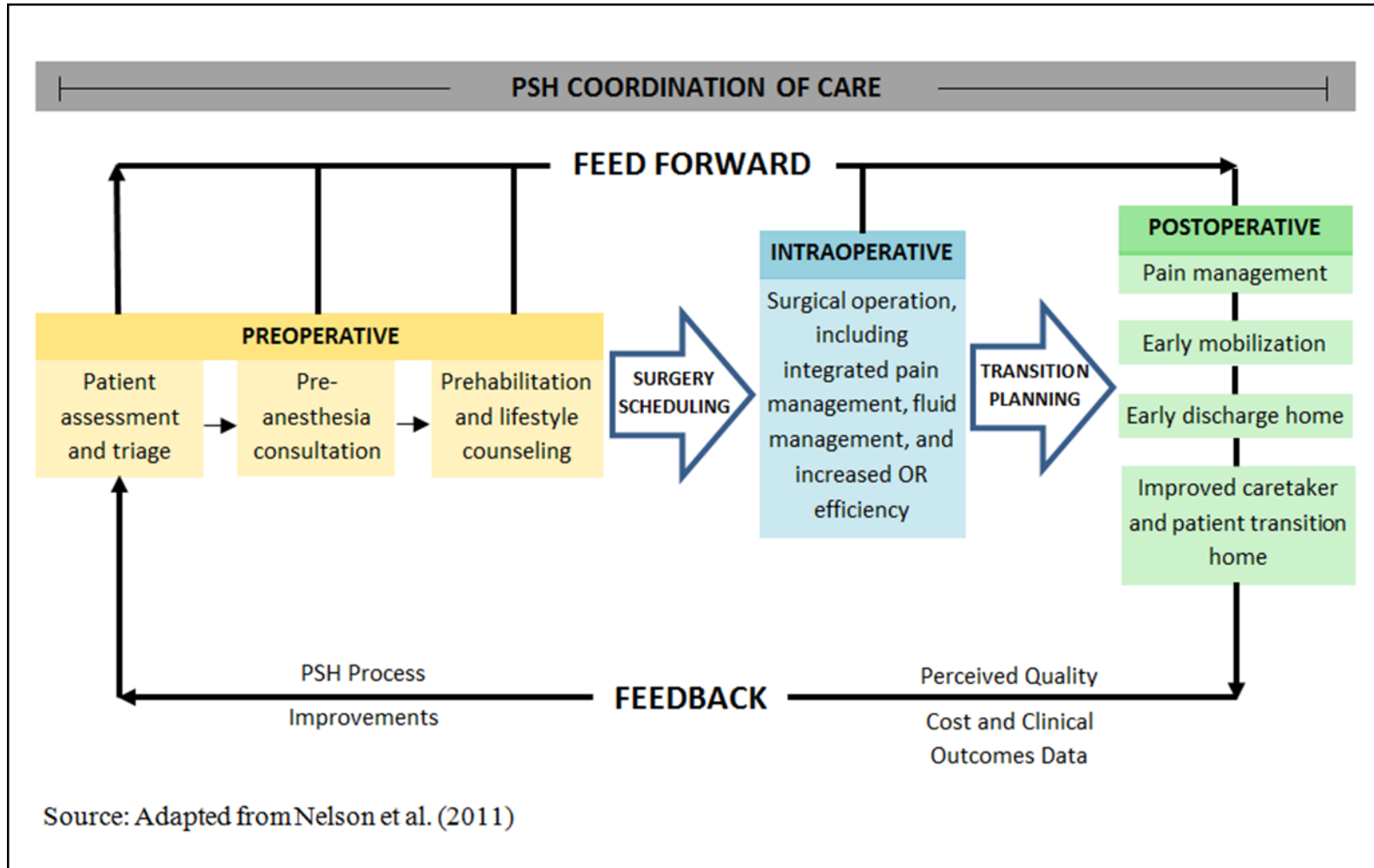


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# WE ARE REDESIGNING MODELS OF CARE

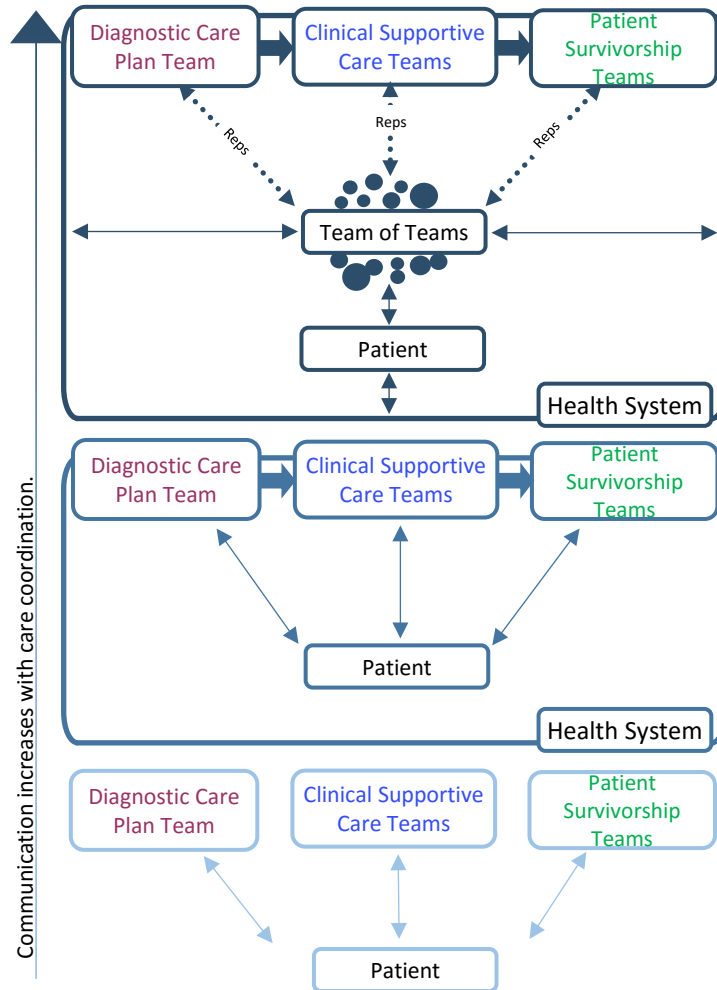


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# WE ARE REDESIGNING MODELS OF CARE



**Diagnostic Care Plan Team:** Identifies optimal care plan

**Clinical Supportive Care Team:** Multidisciplinary clinical care specialists and support services

**Patient Survivorship Team:** Provides emotional, social, and end-of-life support

## Fully Coordinated Cancer Care

Macrosystem connected by a mesosystem (team of teams) that includes the patient. Communication within and among teams is potentially high.

## Sequential Cancer Care

Clinical microsystems as part of one macrosystem in which each individual system communicates directly with the patient. There is forward-flow communication between clinical microsystems. Cross-communication among clinicians is likely to be sporadic at best.

## Fragmented Cancer Care

Disjointed microsystems communicating directly with the patient, but infrequently with each other

# CHANGES WE ARE SEEING IN TEXAS HEALTH SYSTEMS

- **Patient as Partner**
- **Modularity**
- **Use of simulation in design**
- **Technology**
  - HER
  - Virtual visits
- **From Volume to Value: design for “team”**
  - Culture change for the medical community



# Q?

**How do the trends of mobile/tele-, population health and coordinated care impact facility design?**



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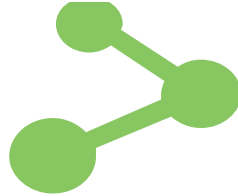
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# TRENDS: RESPONDING TO CHANGE



## **mHealth/Telehealth**

health at hand,  
remote access



## **Care Coordination**

coordination between patients,  
providers and systems for  
efficient patient care and work  
flow



## **Population Health**

community-based, whole  
person health with regional  
health goals



## **Retail Health**

demand-focused, choice-  
based health for extensive and  
immediate reach



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# WHAT CURRENT TRENDS IN CLINICS DO PHYSICIANS FIND SUSTAINABLE?

	Trendy			Sustainable		
	Not a huge trend <b>1</b>	<b>2</b>	Every one talks about it <b>3</b>	A passing trend <b>1</b>	<b>2</b>	Wave of the future <b>3</b>
Concierge Medicine	26%	48%	26%	36%	46%	18%
Telemedicine	19%	47%	34%	14%	51%	35%
Retail Clinics	19%	56%	25%	32%	49%	19%
Coordinated Managed Care	10%	51%	39%	19%	52%	29%
Population Health through Primary Care	21%	43%	36%	21%	54%	25%

Telemedicine is considered the most sustainable trend, followed by coordinated care and population health



# DRIVERS OF CHANGE IN HEALTHCARE

- Regulatory Environment
- Technology / Innovation
- Financial Incentives / Reimbursement  
“Carrots and Sticks”

## Designing for Change:

*Predicting “What’s Next?” and “Why?”*



**“The only thing that is constant is change.”**

Heraclitus  
(c. 535 – 475 BCE)

# Q?

What are some generational differences between boomers and millennials that could impact location and design of clinics?



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# CLINIC 20XX SURVEY

**328**  
RESPONSES

**167** BABY BOOMERS  
1946 - 1964

**84** OLDER BOOMERS  
1946 - 1954

**83** YOUNGER BOOMERS  
1955 - 1964

**161** MILLENNIALS  
1981 - 2000

**97** OLDER MILLENNIALS  
1981 - 1990

**51** YOUNGER MILLENNIALS  
1991 - 2000

**13 MISSING**



**100**  
PHYSICIANS

**51** FAMILY PRACTICE

**49** INTERNAL MEDICINE

**24** 45 YEARS OLD OR YOUNGER

**33** 46 - 55 YEARS OLD

**35** 56 - 65 YEARS OLD

**8** 66 YEARS OR OLDER

⚡ THE SURVEY WAS SENT TO INDIVIDUALS WHO HAD VISITED AT LEAST ONE CLINIC FOR THE FIRST TIME WITHIN THE LAST SIX MONTHS.



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# PATIENT VS. CONSUMER

*How would you describe yourself?*



A patient needing  
health services



A consumer buying  
health services

Patients First! The Clinic Patient is Not the Typical Consumer

# EXPERIENCE VS. SERVICE

*How would you describe yourself?*



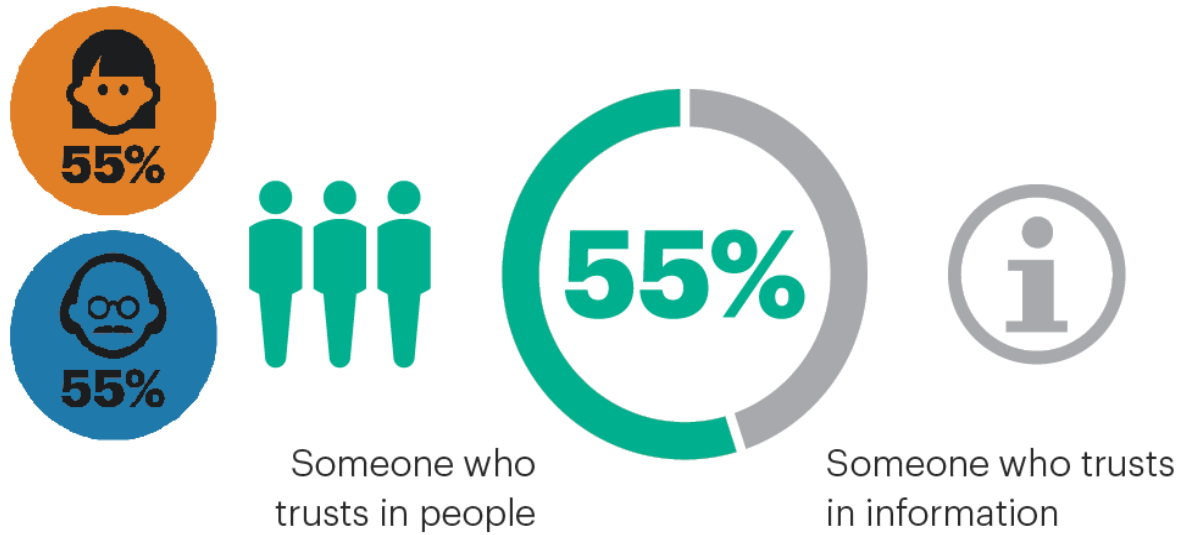
Having a good experience is more important than just having my health issue addressed

As long as my health issue is addressed, I don't really care about the experience

**Experience is Important, Especially for Millennials**

# PEOPLE VS. INFORMATION

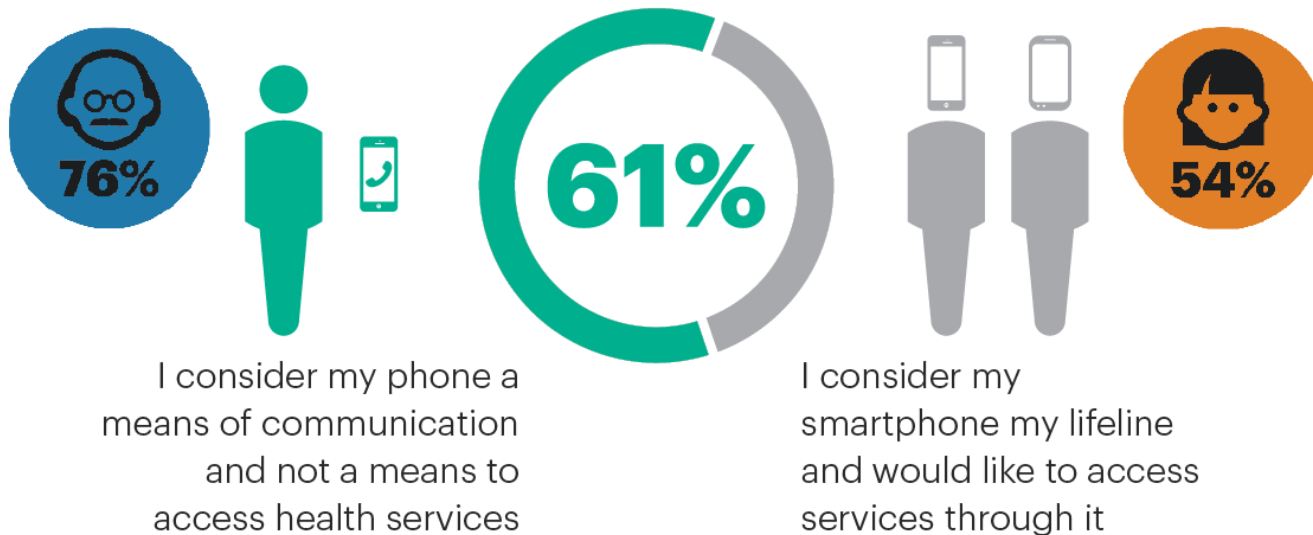
## *Experience vs. Service*



People Trust People

# PEOPLE VS. PORTAL

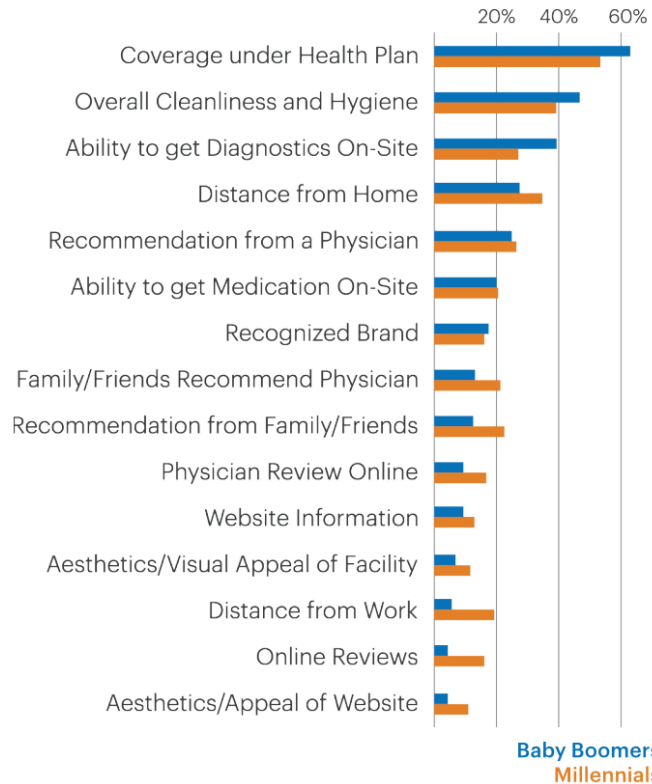
*How would you describe yourself?*



Times are Changing - Millennials See Their Phones as the Portal

# WHAT MADE PATIENTS SELECT THEIR CLINIC?

**Top Selection Factors (Top Box Score)**



**Top Selection Factors (overall mean)**

**Coverage Under Health Plan**



**4.2/5.0**

**Overall Cleanliness**



**3.8/5.0**

**On-Site Diagnostics**

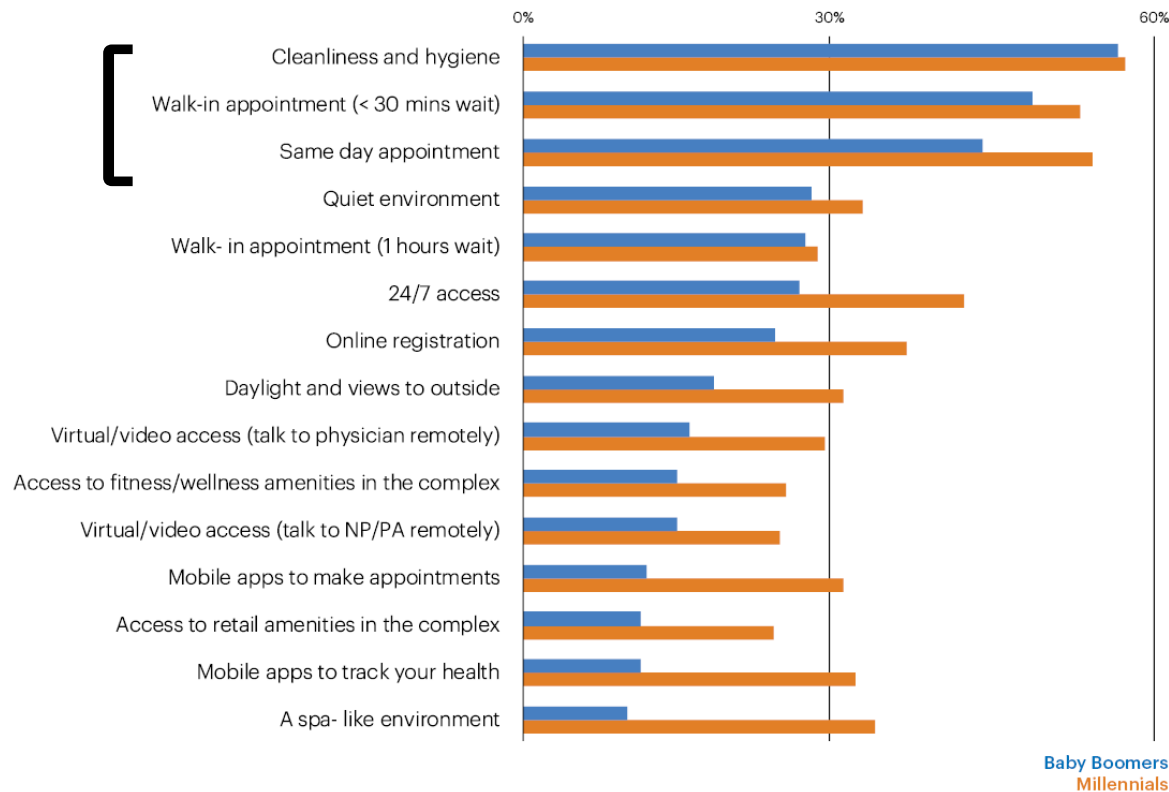


**3.7/5.0**

**Healthcare Coverage & Perception of Cleanliness  
are Important for Boomers and Millennials**

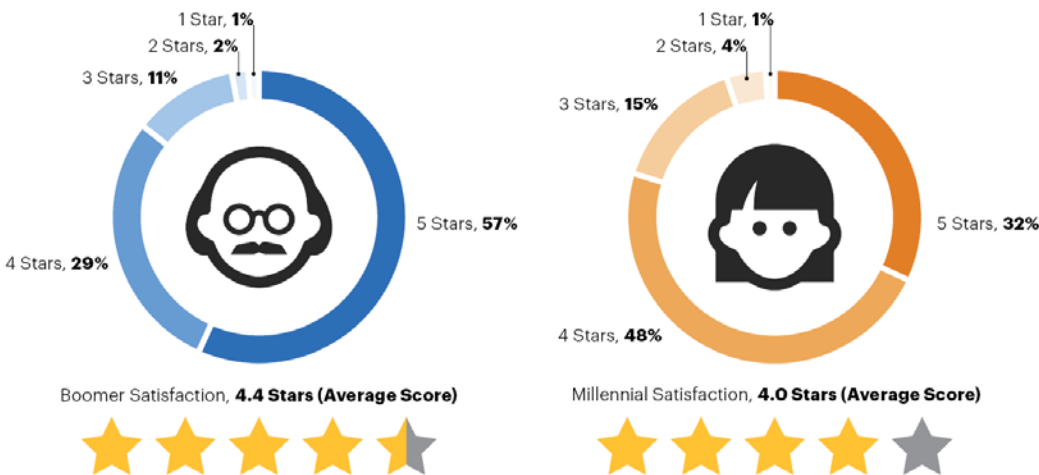


# WHAT FEATURES MAKE A CLINIC MORE APPEALING?



Boomers have more streamlined and pragmatic priorities millennials want more. Use of apps and a “spa-like” environment are much more preferred for millennials

# HOW SATISFIED ARE PATIENTS WITH THEIR VISIT? WHAT PREDICTS THEIR SATISFACTION?



Based on t-test analysis, boomer versus millennial mean difference was statistically significant.  
Boomers, overall, are more satisfied with their care than millennials.

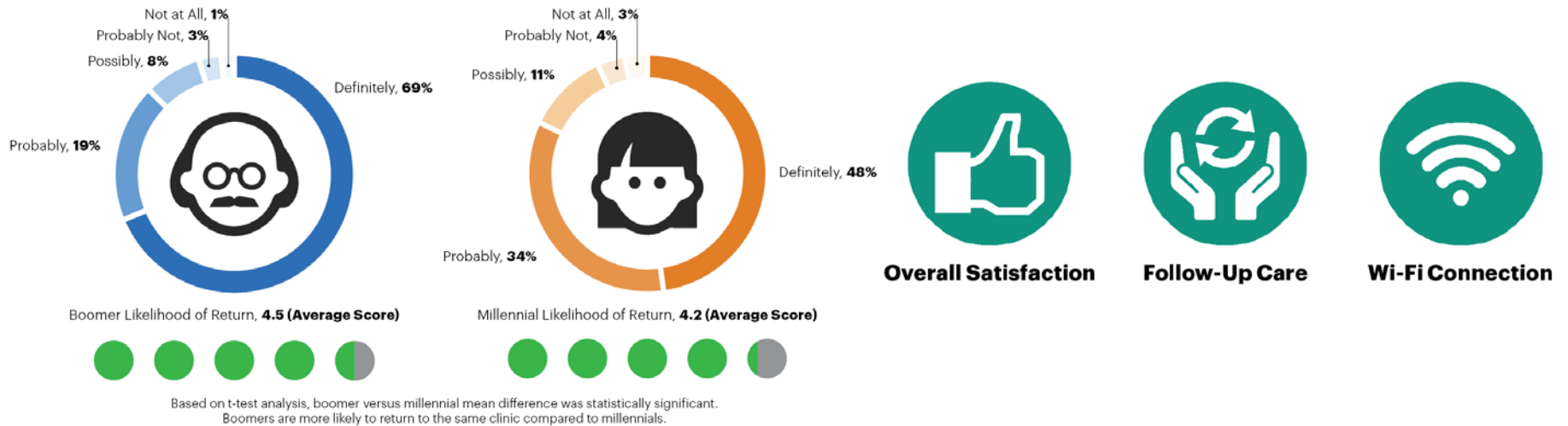
## Predictors of Overall Satisfaction

Factor	Result
<b>Wait Time</b>	People with reasonable wait time in the waiting room and registration areas were more satisfied
<b>Service Quality</b>	Satisfaction with registration process and overall care coordination are significant predictors of overall satisfaction.

Overall, millennials are less satisfied than boomers.

For both millennials and boomers, wait times and service quality predict satisfaction.

# WHAT IS THE LIKELIHOOD OF GOING BACK TO THE CLINIC? WHAT PREDICTS THEIR RETURN?



Overall, millennials are less likely to return to the same clinic, compared to boomers  
For both millennials and boomers, overall satisfaction, follow-up care and Wi-Fi connection predict a return visit

*“Good service, kind workers, cheap prices.”*

*“Cleanliness . Accessibility. Welcoming environment.”*

*“Cleanliness. Quickness. Niceness.”*

*“Could have been cleaner;  
physical building itself  
looked used and abused.”*



***“I'd like to feel like a priority”***

# FACILITY INNOVATIONS & CHANGE-READY PRINCIPLES

## Traditional

Registration at the office with paperwork to fill out and wait.

Waiting room with TV, magazines, vending machines

## Innovations

Self-registration/e-kiosk



- Concourse Waiting
- Healthy Cafes
- Self-Rooming



## Change-Ready Facilities

Tech-ready contact points



- Pause areas with comfort & connectivity
- Change “waiting” to value added time via Education/ Engagement/ Patient Prep



# FACILITY INNOVATIONS & CHANGE-READY PRINCIPLES

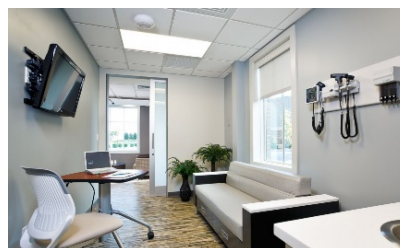


## Traditional



**Exam Room**

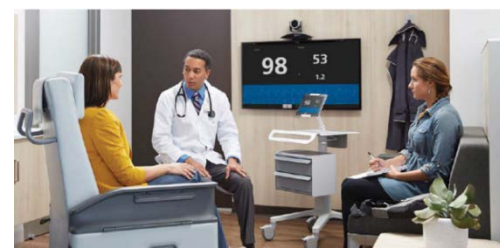
## Innovations



**Family Room**

- Consult/ Talking Rooms
- On-stage/ Off-stage Access
- Embedded Video conferencing ability
- Mobile telehealth capabilities
- Elimination of Exam Beds
- Group consult/ community rooms

## Change-Ready Facilities



**Consult/ Care Space**

- High connectivity (reach to remote sites and support staff in clinic)
- Flexibility to incorporate different needs/functions (for different clinic types)
- Scalability (ability to address a group/ cohort)

# FACILITY INNOVATIONS & CHANGE-READY PRINCIPLES

## Traditional

Discharge Area

Private Offices and Nurse Stations



## Innovations

Check-out in consult/exam room using mobile technology

Workspaces and team stations set up with open offices and collaborative team stations



## Change-Ready Facilities

Flexibility to allow different modes of discharge

Workspaces that have:

- High physical connectivity (proximity) between team members
- High digital connectivity that allows digital tracking and information access at a systemic level

# 3 DISTINCT CHARACTERISTICS

## CONNECTIVITY



- Strategic **location**
- Easy **access** to site (physically + virtually)
- **Connectivity** between key spaces (physical + digital connectivity) that allow optimum **workflow**
- Connectivity between key team members (physical + digital)
- Connectivity between patient and provider (physical + digital)
- Easy access **to information**
- Connectivity to cloud, team and community | Wi-Fi access

## FLEXIBILITY



- Ability to **expand and contract** based on varying needs
- Ability to **rotate functionality**
- Ability to accommodate rapidly changing **technology**

## SENSE OF PLACE



- Materials, finishes and configurations that promote cleanliness + **perception of cleanliness**
- Configurations and ambience that **support meaningful interactions** between patient and provider
- **Comfort (sensory)**
- **Quietness**
- Visual appeal
- **Brand**



# Q?

- What are the necessary steps to take to design for change (specific facility design strategies) in a rapidly evolving policy and technology environment?
- How can facilities aid a public health goal?
- How can we bring together owners, architects, contractors and public health experts towards healthier communities?



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# SUMMARY (OR IF PREFER, CONCLUSION)

- Designing operational processes must come prior to facility design (e.g through value stream mapping)
- Facilities should create a sense of “team” for care coordination, which includes the patient as a partner
- Change-ready facilities should provide connectivity, flexibility and an appealing, safe, clean, unique sense of place that fosters relationships and patient engagement



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# *Questions?*



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