

CLINIC 20XX

DESIGNING FOR AN EVER-CHANGING PRESENT

© CADRE, 2015

THE 2017 BRITAIN STUDY

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Changing Paradigm in Britain

NHS FIVE YEAR FORWARD VIEW
WHAT WILL THE FUTURE LOOK LIKE?
NEW MODELS OF CARE

EMERGING MODELS

KENT
20 GPs & 150 staff operate from 3 sites to provide services that are traditionally done in hospital. Providing care for patients, closer to home.

ARREDALE
Nursing 5 residential homes have volunteered to accommodate for acute inpatient care. AGE attendance down 53% & admissions by 35%.

ROTHERHAM
GPs & Community Matrons, sign post to voluntary sector with 'local prescriptions'. Resulting in reduction in AGE visits and admissions.

LONDON
GPs and social services collaborate to improve care. Reduction in patients moving to nursing homes. Savings for both health & social care.

VERTICAL INTEGRATION - PRIMARY & ACUTE CARE SYSTEMS (PACES)
Lead by hospital ST, care via GP practices, accountable for health of population

SECONDARY CARE

PRIMARY CARE

HORIZONTAL INTEGRATION - MULTISPECIALITY COMMUNITY PROVIDER (MCP)
Lead by network of GP practices, employing consultants and community staff. Run community hospitals.

SPECIALIST CARE
In London, reduction in stroke units from 32 to 8 resulted in 17% reduction in mortality and 2% reduction in hospital stay. Need to explore other clinical areas.

CARE HOMES
1/6 aged over 85 are in care home. Increasing elderly population. Care is better provided at home. Integration with social service [Better Care Fund].

COMMUNITY HOSPITALS
Link adults with community hospitals. Specialist services eg. Moorfields has 22 locations. Integrate with primary care.

SPECIALIST CARE
Birth rate is highest for 4th years. 75% of women want to deliver at home but 15% do so. Support choices for women, commission a review. Easier for groups of midwives to set up services.

URGENT CARE NETWORKS
Increasing demand, 100M calls / visits annually. More use of GPs, Pharmacists, Medical Health 7 day working for hospitals. Supporting clinical triage.

MYICO

Source:
<https://myico.net/tag/5-year-forward-view/>

5 new models of care

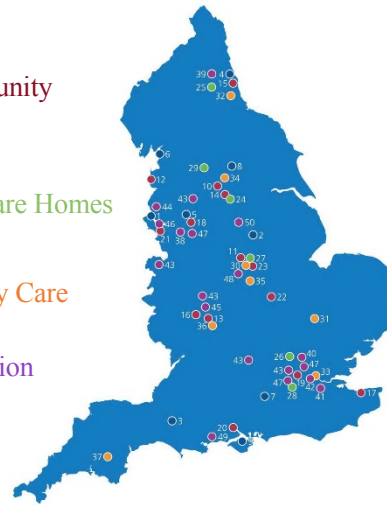
Integrated Primary and Acute Care Systems

Multispecialty Community Providers

Enhanced Health in Care Homes

Urgent and Emergency Care

Acute Care Collaboration

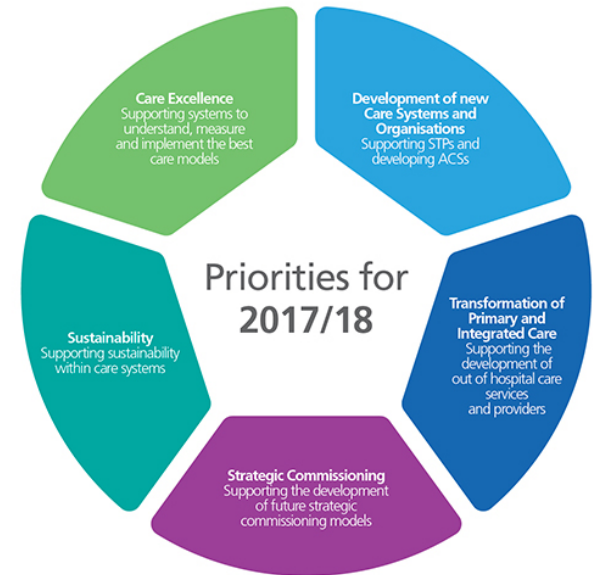


#futureNHS

Our values: clinical engagement, patient involvement, local ownership, national support

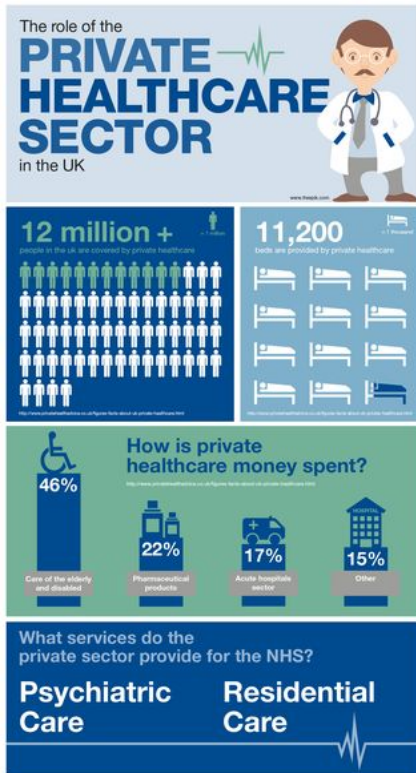
Source:
Adapted from <https://www.England.nhs.uk/vanguards>

Priorities for Implementation



Source:
<https://www.scwscu.nhs.uk/news/201-putting-the-five-year-forward-view-into-action-developing-support-for-vanguards-and-new-models-of-care>

A Changing Health Market



New Models of Private Healthcare

- Consultant / Private Hospital Clinic Partnership / Investment group
- NHS / Private Hospital / Consultant Clinics
- Consultant / Private GP Clinics
- ‘Shopping Mall’ Clinics
- Privately Funded ‘Clinics’

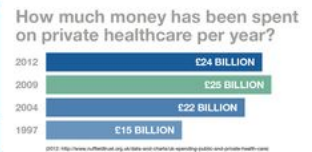
HCA Hospitals
World-Class Healthcare



Spire Healthcare



BMI Healthcare
THE CONSULTANTS' CHOICE



Source:
www.healthcareinsured.co.uk



One Question:

What is the clinic of the future?

Reader's Digest NEW Reading
Skills Reader (1966)

Our Future World in 1999

Art by Fred Freeman (1906-1988)



In this art of the world in 1999 and beyond, Fred Freeman envisioned that we would have such technological marvels as rocket belts, domes over cities to control climate, hovering vehicles, flying boats, moving sidewalks everywhere and flying saucer-shaped transports.

CRACKED.COM



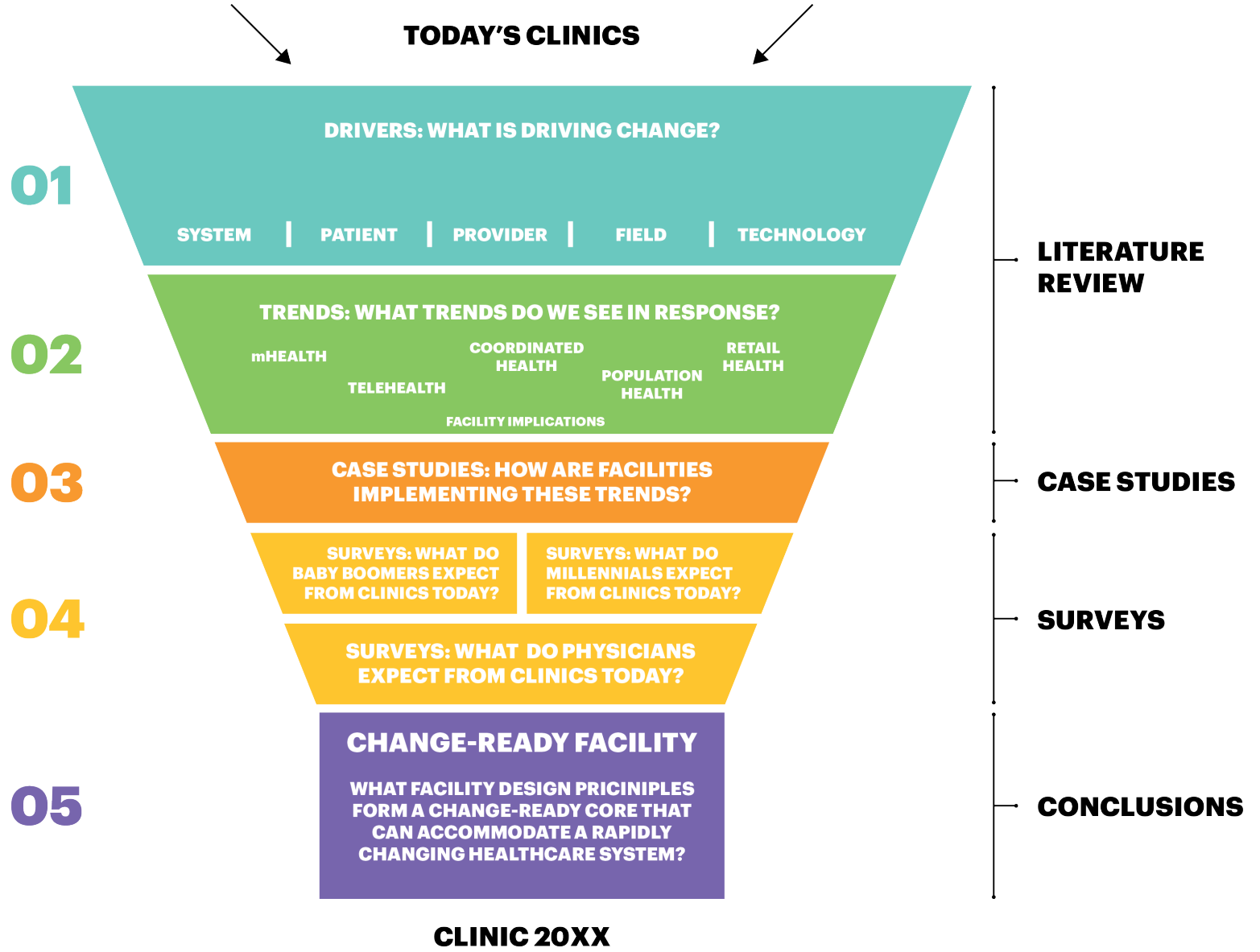
How do we design not for a
faceless future but a dynamic,
ever-changing present?

2017

2030

20XX

DESIGNING FOR AN EVER-CHANGING PRESENT



TODAY'S CLINICS

01

DRIVERS: WHAT IS DRIVING CHANGE?

SYSTEM | PATIENT | PROVIDER | FIELD | TECHNOLOGY

02

TRENDS: WHAT TRENDS DO WE SEE IN RESPONSE?

mHEALTH | TELEHEALTH | COORDINATED HEALTH | FACILITY IMPLICATIONS | POPULATION HEALTH | RETAIL HEALTH

03

CASE STUDIES: HOW ARE FACILITIES IMPLEMENTING THESE TRENDS?

04

SURVEYS: WHAT DO BABY BOOMERS EXPECT FROM CLINICS TODAY? | SURVEYS: WHAT DO MILLENNIALS EXPECT FROM CLINICS TODAY?

SURVEYS: WHAT DO PHYSICIANS EXPECT FROM CLINICS TODAY?

05

CHANGE-READY FACILITY

WHAT FACILITY DESIGN PRINCIPLES FORM A CHANGE-READY CORE THAT CAN ACCOMMODATE A RAPIDLY CHANGING HEALTHCARE SYSTEM?

LITERATURE REVIEW

CASE STUDIES

SURVEYS

CONCLUSIONS

CLINIC 20XX

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

5 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

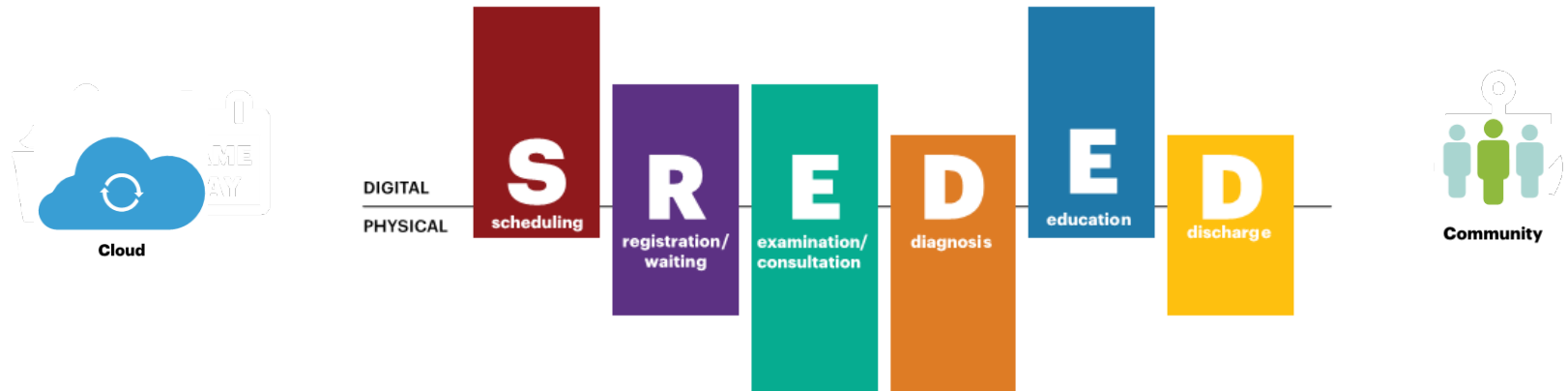
community-based, whole
person health with
regional health goals



Retail Health

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

Key Insights from 20XX

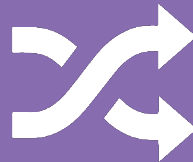


Connectivity



Clinics have to be positioned to have connectivity regionally to their constituents and systemically to the larger health information systems.

Flexibility



Flexibility to adapt has to be considered at multiple scales ranging from site and building planning to wall systems and furniture.

Sense of Place

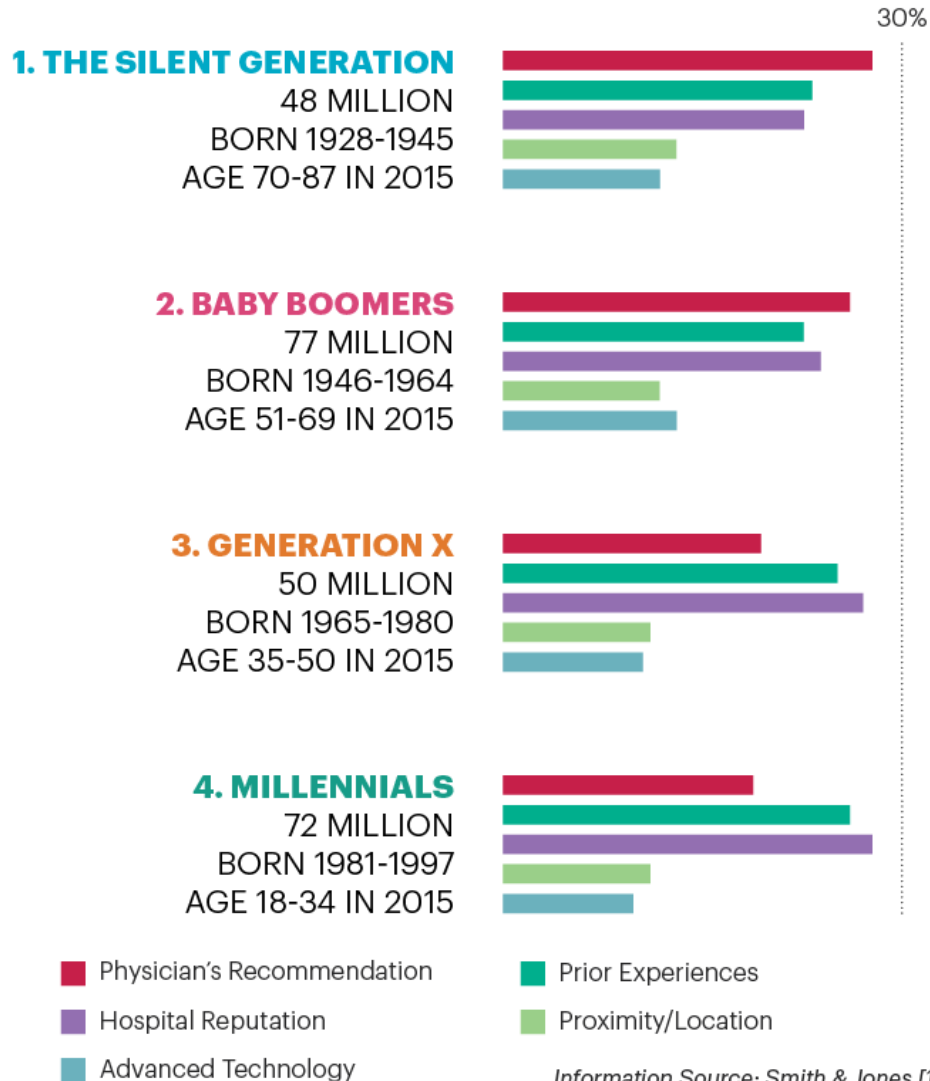


A sense of place that promotes health and wellbeing, and is inclusive of different physical abilities and generational preferences can be a differentiator. Spending time knowing the people we are designing for is key.

Are these Principles Globally applicable?



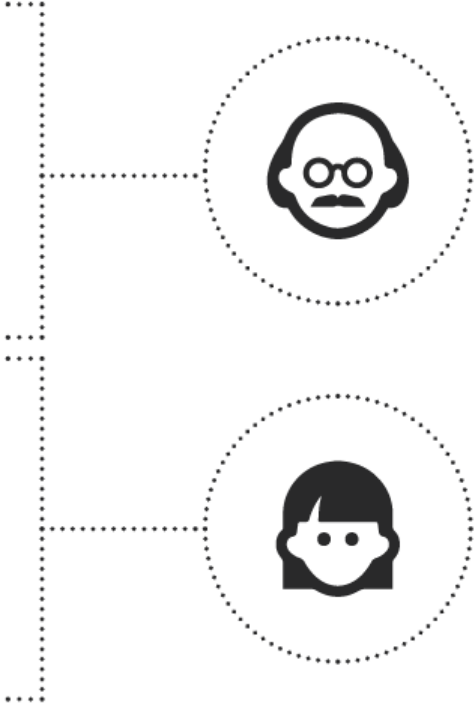
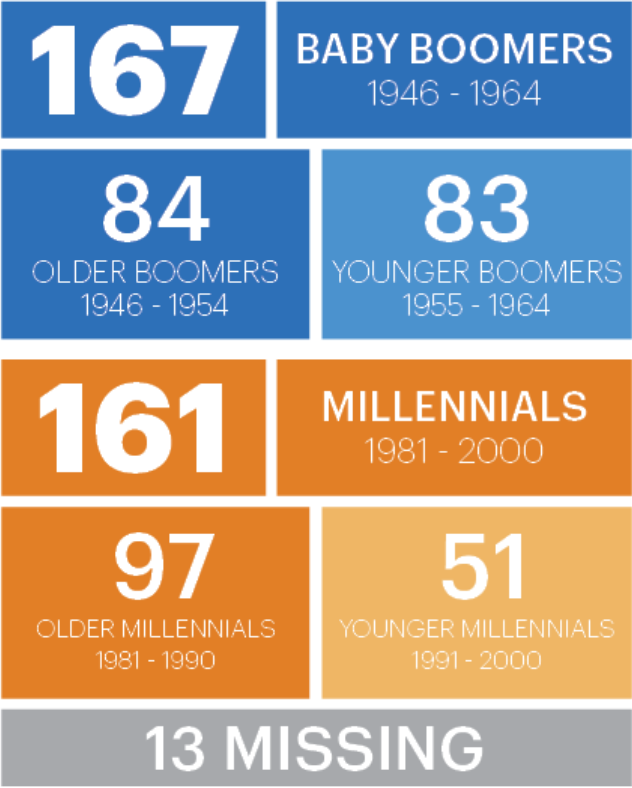
The Biggest Variable: People



Information Source: Smith & Jones [16]



328 RESPONSES



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



230 RESPONSES

121 **BABY BOOMERS**
1946 - 1964

50
OLDER BOOMERS
1946 - 1954

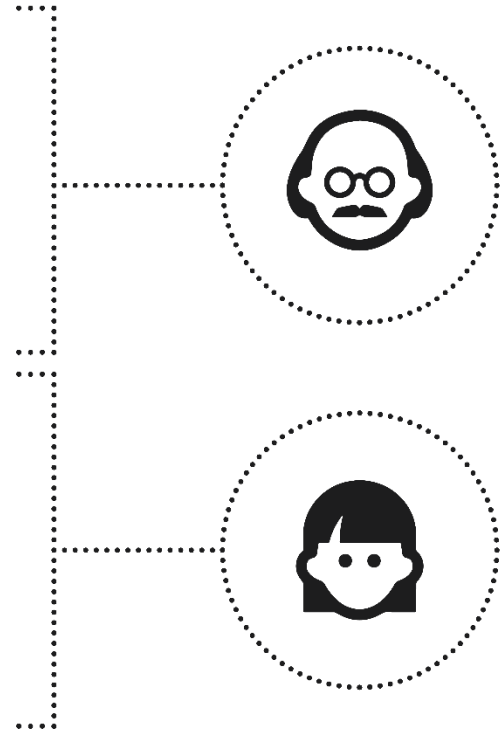
71
YOUNGER BOOMERS
1955 - 1964

109

MILLENNIALS
1981 - 2000

58
OLDER MILLENNIALS
1981 - 1990

51
YOUNGER MILLENNIALS
1991 - 2000



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



Patient vs. Consumer

How would you describe yourself?



A patient needing
health services

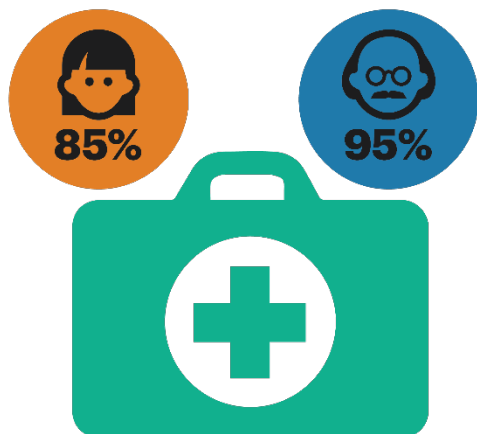


A consumer buying
health services



Patient vs. Consumer

How would you describe yourself?

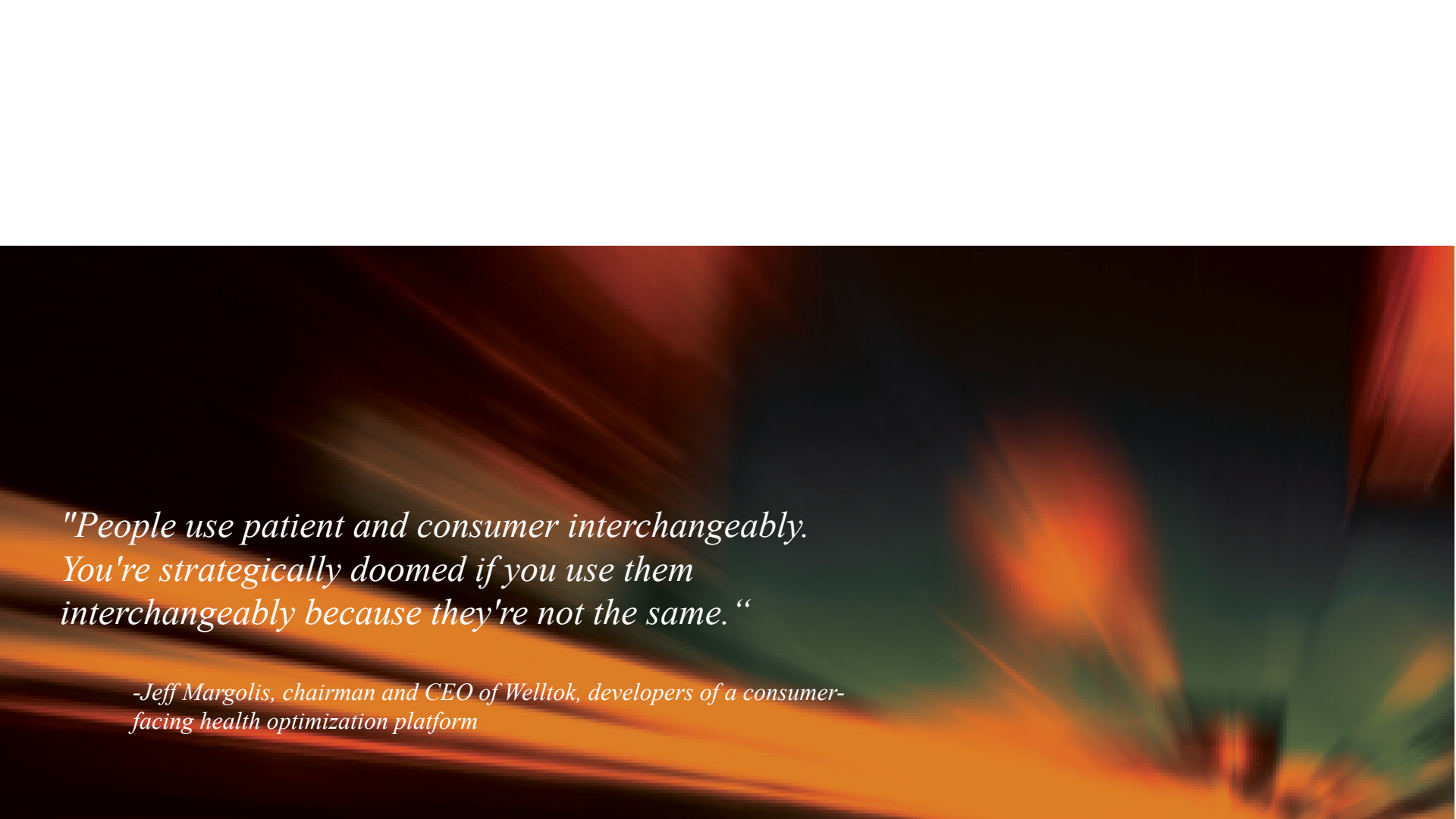


A patient needing health services



A consumer buying health services

Patients First! The clinic patient is not the typical consumer



*"People use patient and consumer interchangeably.
You're strategically doomed if you use them
interchangeably because they're not the same."*

-Jeff Margolis, chairman and CEO of Welltok, developers of a consumer-facing health optimization platform



Experience vs. Service

How would you describe yourself?



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

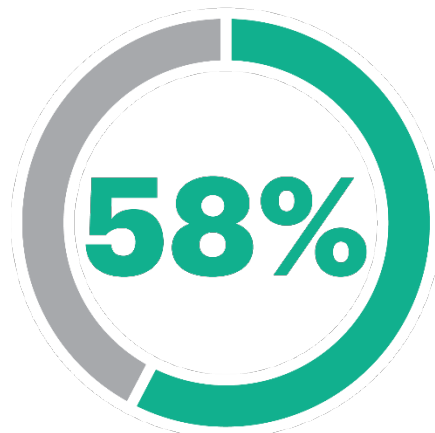
As long as my health issue is addressed, I don't really care about the experience

Experience is important, especially for millennials



Experience vs. Service

How would you describe yourself?



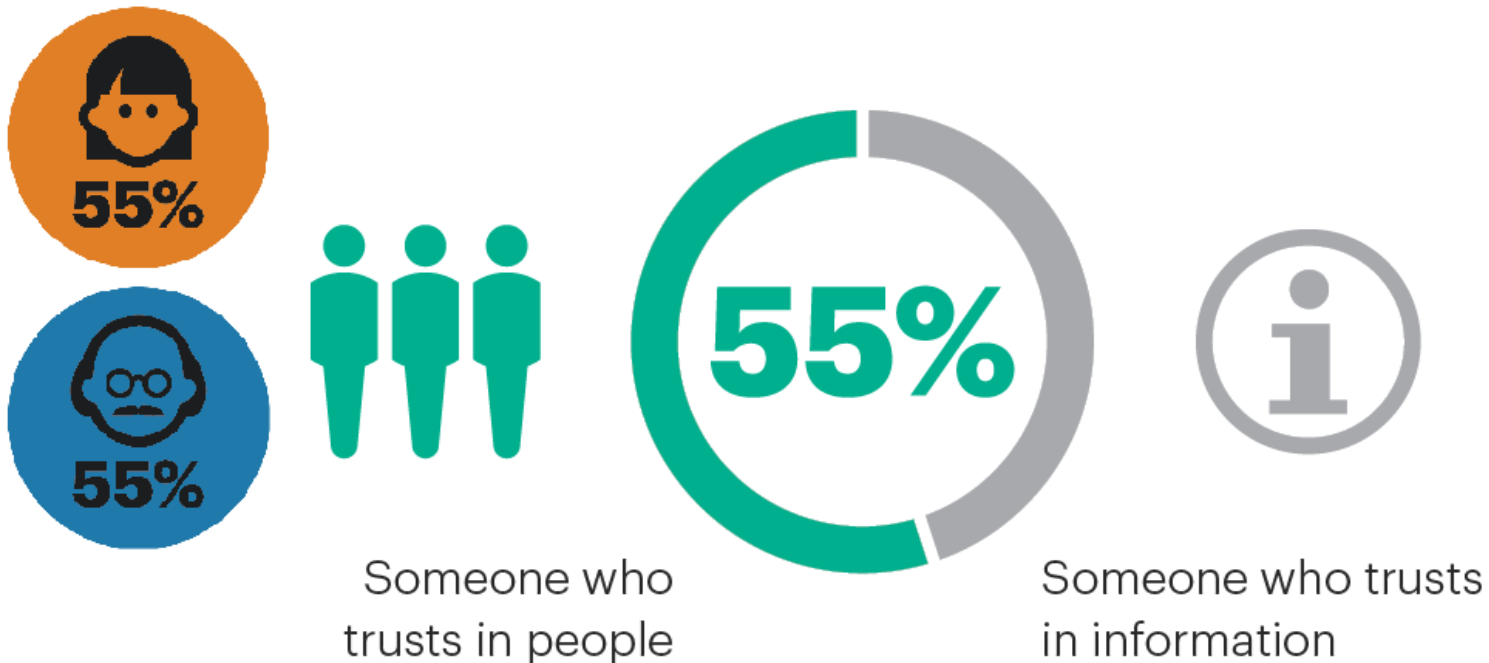
Having a good experience is more important than just having my health issue addressed

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

Experience is less important



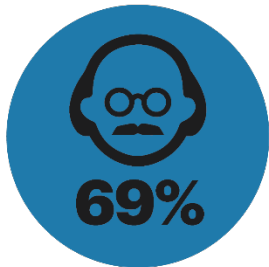
People vs. Information



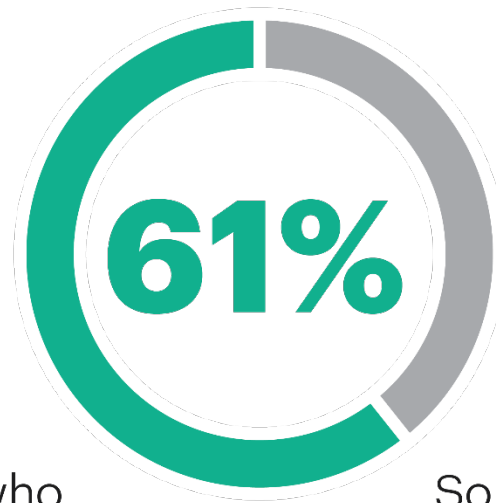
People trust people



People vs. Information



Someone who trusts in people



Someone who trusts in information

People trust people

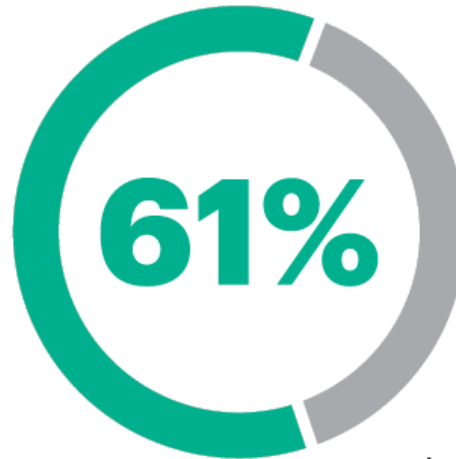


Phone vs. Portal

How would you describe yourself?



I consider my phone a means of communication and not a means to access health services



I consider my smartphone my lifeline and would like to access services through it

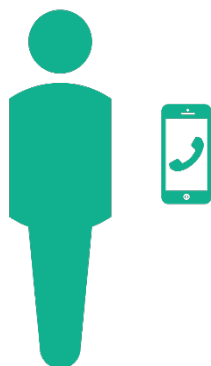
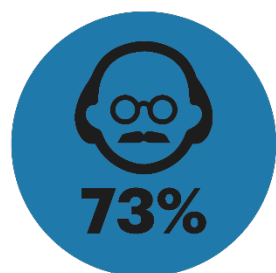


Times are changing - millennials see their phones as the portal

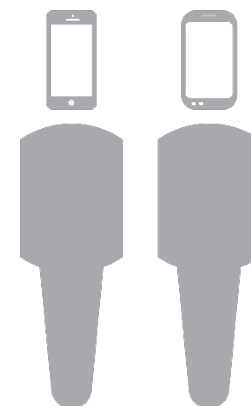
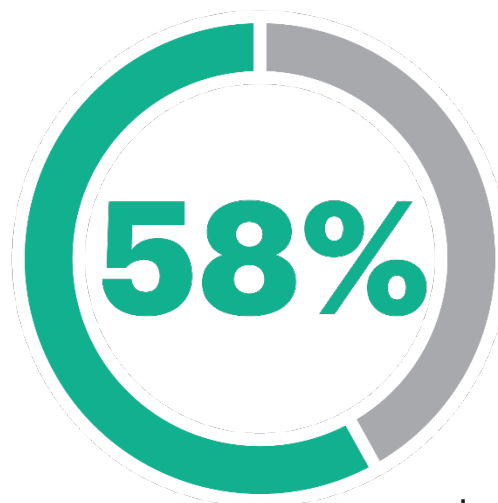


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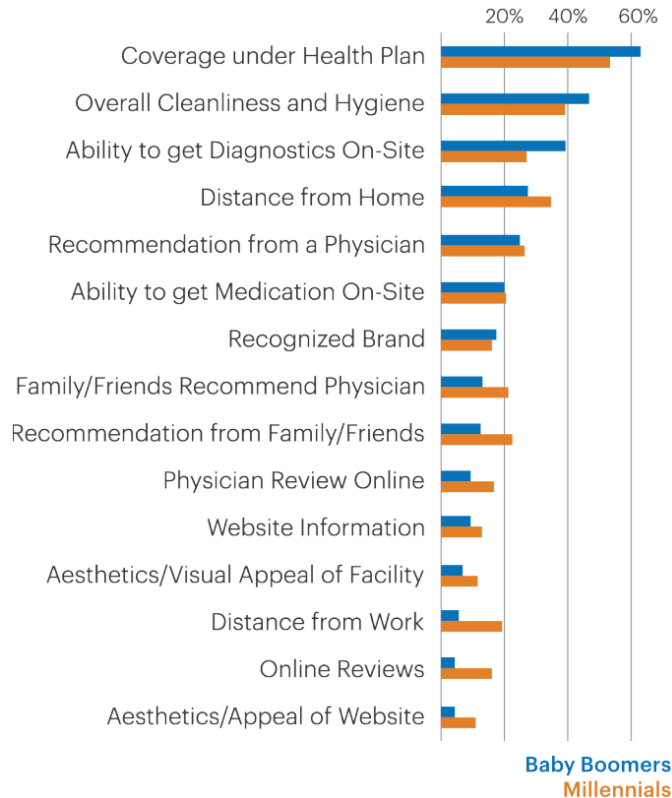
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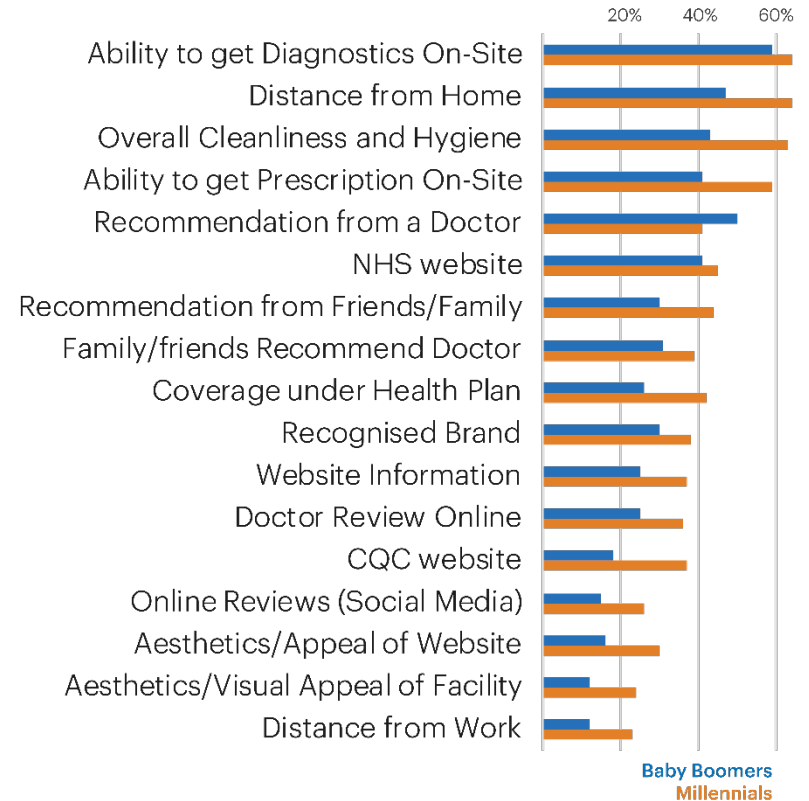


What made patients select their clinic?

Top Selection Factors (Top Box Score)



Top Selection Factors (Top Box Score)



Healthcare coverage & perception of cleanliness are important for boomers and millennials



What made patients select their clinic?

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

Top Selection Factors (overall mean)

On-Site Diagnostics



3.6/5.0

Distance from Home



3.4/5.0

Overall Cleanliness

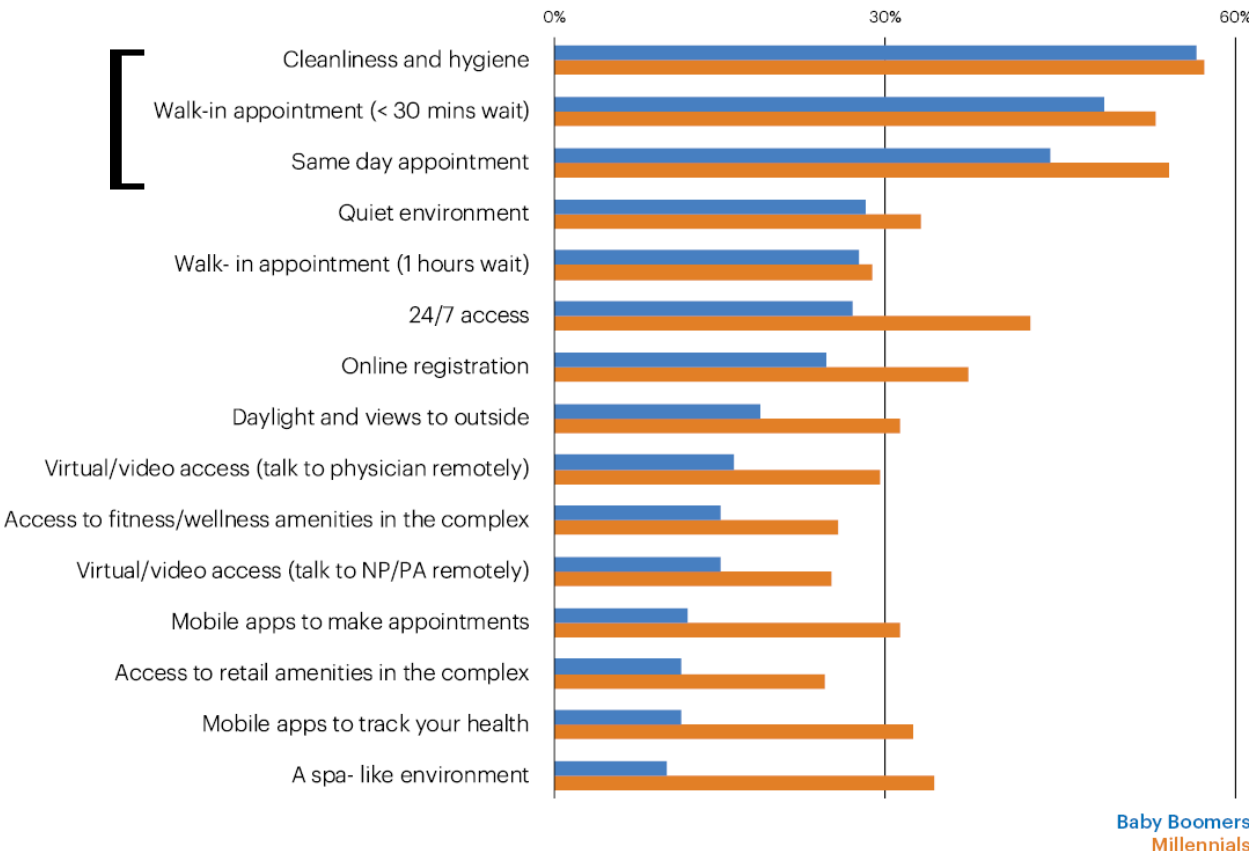


3.4/5.0

On-site diagnostics & distance from home are important for boomers and millennials



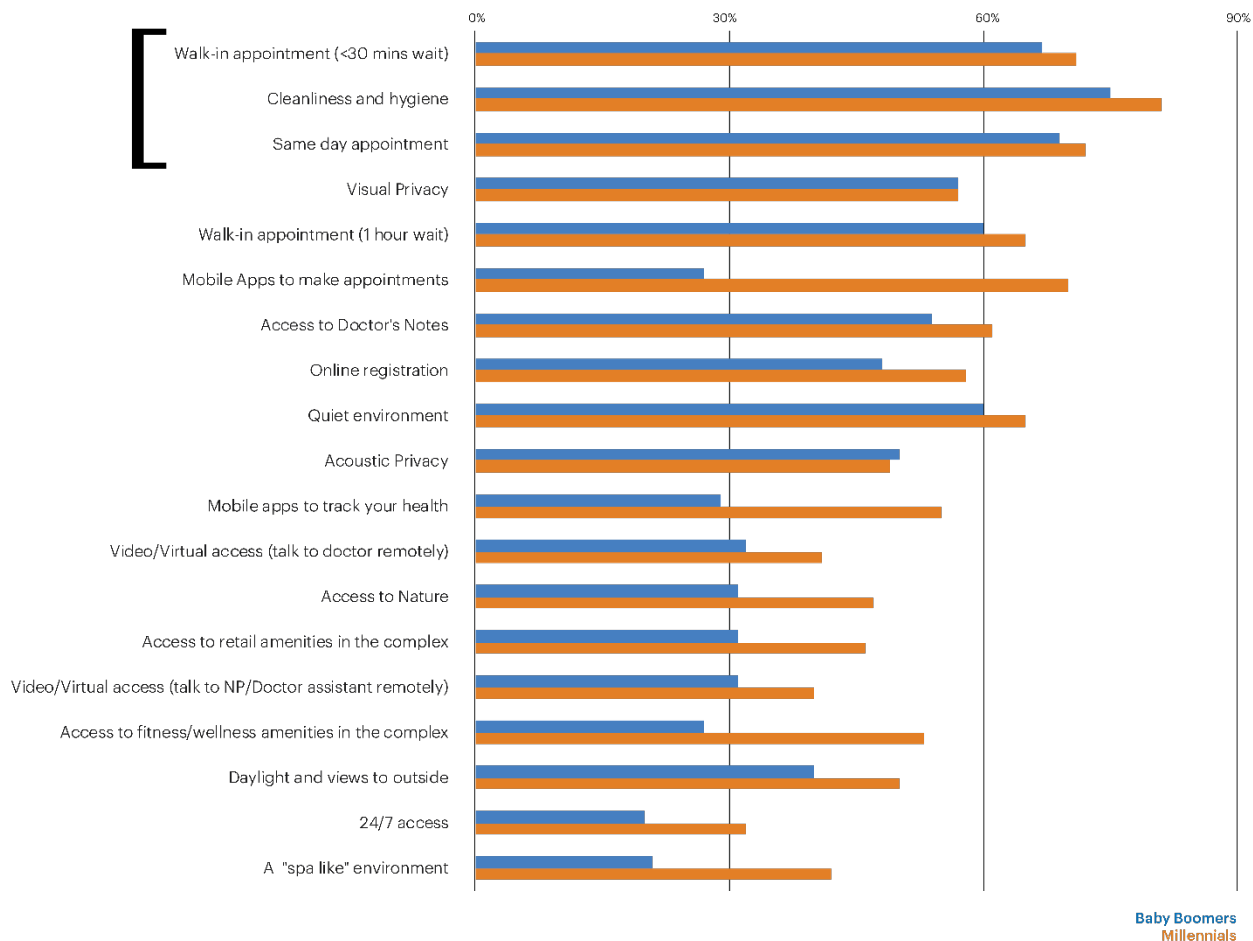
What features make a clinic more appealing?



Boomers have more streamlined and pragmatic priorities
Millennials want more. Use of apps, and a “spa-like” environment are much higher for millennials compared to boomers.



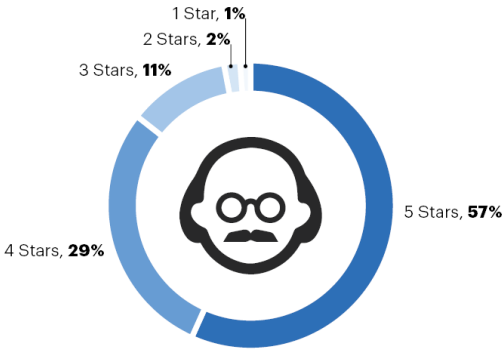
What features make a clinic more appealing?



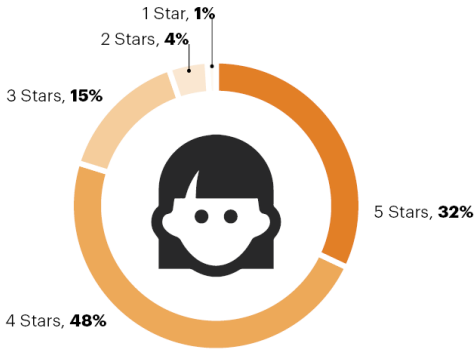
The top 3 features are the same in the US and the UK. Spa like environment is less important millennials in UK than in the US.



How satisfied are patients with their visit? What predicts their satisfaction?



Boomer Satisfaction, **4.4 Stars (Average Score)**



Millennial Satisfaction, **4.0 Stars (Average Score)**



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

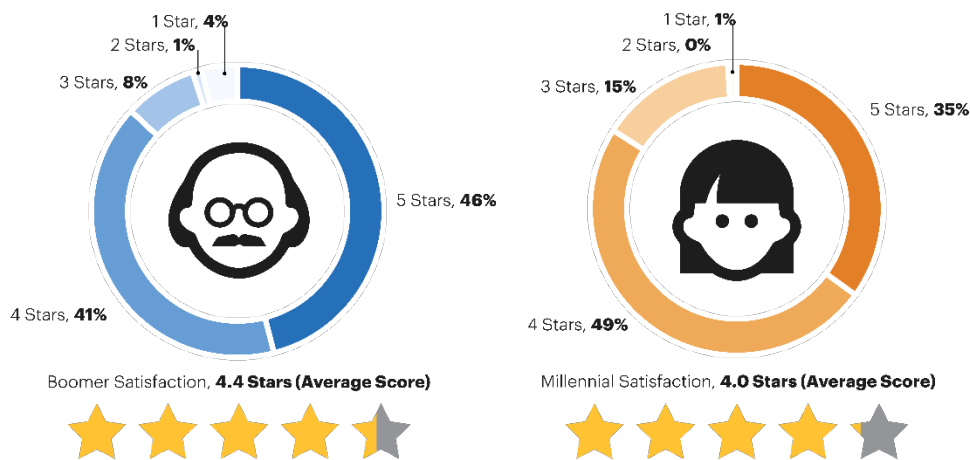
Top predictors



Overall, millennials are less satisfied than boomers
For both millennials and boomers, wait times and service quality predict satisfaction.



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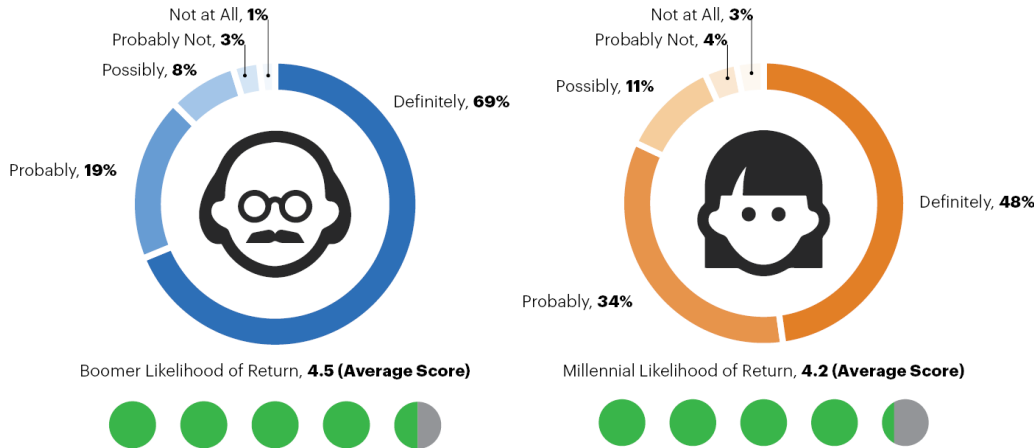
Top predictors

Factor
Wait Time
Organization of Care
Ease of Appointment Making
Follow-Up

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 Satisfaction



Follow-Up Care



Wi-Fi Connection

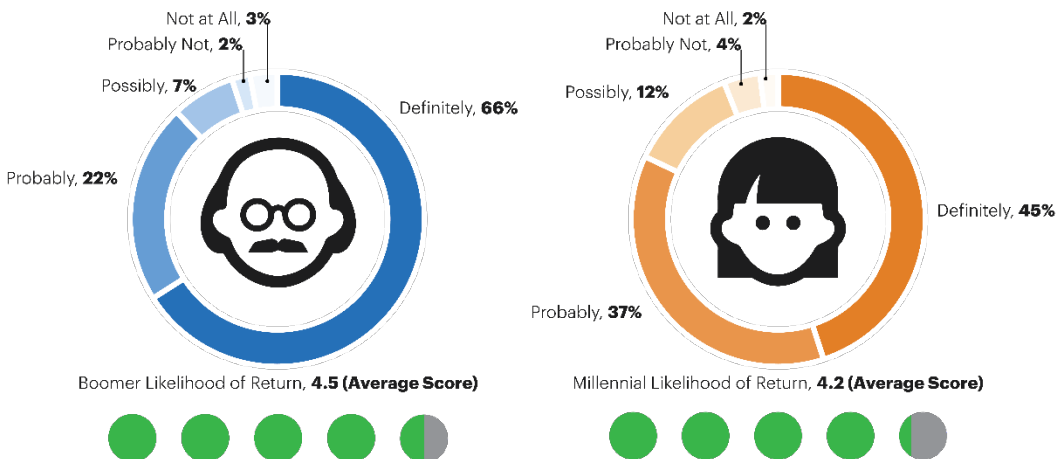
Based on t-test analysis, boomer versus millennial mean difference was statistically significant. Boomers are more likely to return to the same clinic compared to millennials.

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



What is the likelihood of going back to the clinic? What predicts their return?



Based on t-test analysis, boomer versus millennial mean difference was statistically significant. Boomers are more likely to return to the same clinic compared to millennials.



**Satisfaction w/
Registration
Process**



**Cleanliness of
Facilities**



Overall Satisfaction

Overall, millennials are less likely to return to the same clinic, compared to boomers



“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”

UK



“Time. Trustworthiness. Thorough.”

“Cleanliness .Efficiency. Reliability.”

“Locality. Convenience. Reputation.”

“Better parking. Coffee Machine. Free newspaper or magazines to read.”



**“They listen to what you say,
Address any concerns,
follow up on treatment.”**



Roughly 15% of people in the population are in a patient state at any given time. The other 85% of the population are in consumer mode - other influences besides clinical data drive status and decisions

Source: Margolis, 2014



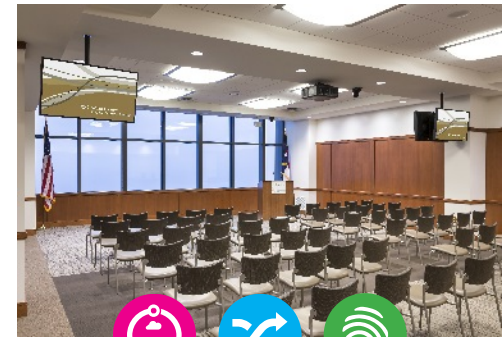
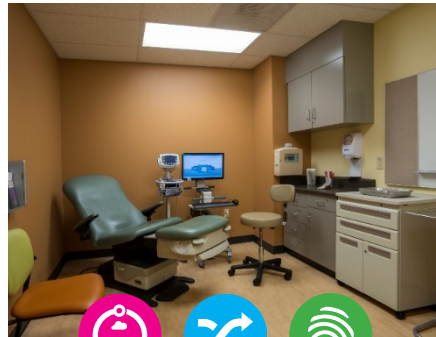
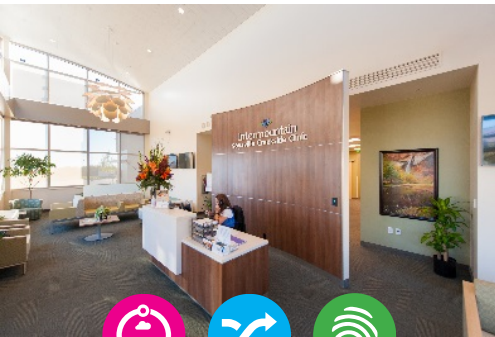
Design Implications



Change- Ready Design Implications

Consult/Care Space

Think of each area of interaction between the patient and the system as a “CARE” space



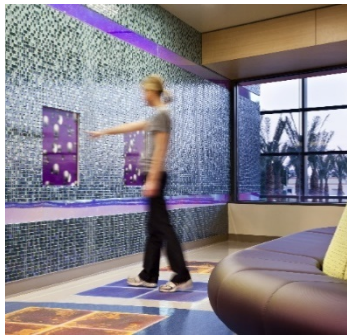
Waiting

Always engaged

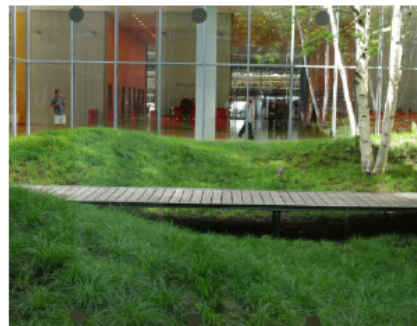
/Remove “waiting” room from the vocabulary

/Use the time spent waiting for reflection, education and preparation-
or simply supporting a patient lifestyle

/Name rooms based on purpose. **Waiting has no purpose.**



Unique Sense of Space



/Materials and finishes that promote cleanliness and perception of cleanliness

/Configurations that support meaningful interactions between patient and provider

/Comfort (multi-sensory)

/Quiet

/Visual appeal

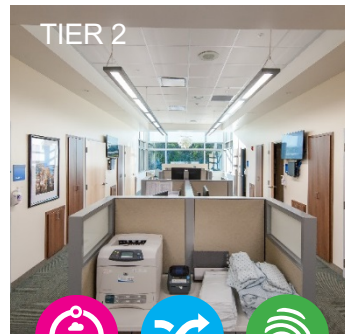
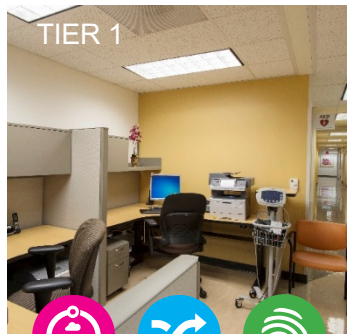
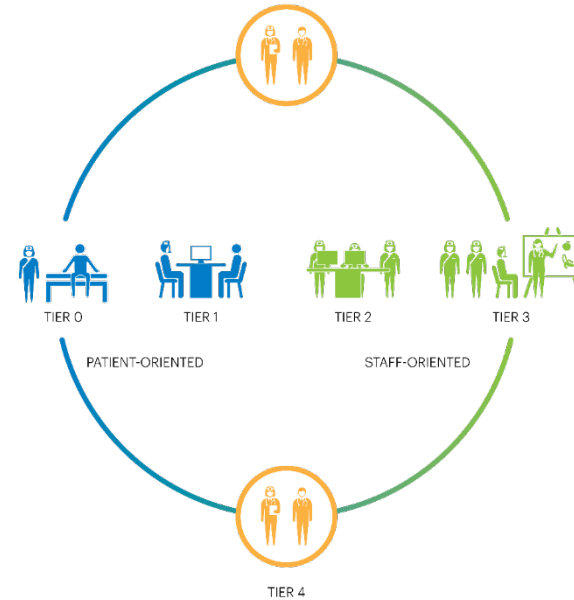
/Ambience

/Nature

Scalable Work Space

Work Space

Efficient “range” of spaces that foster focused work, collaboration and care coordination with technology integration



Application



Clean/ Uncluttered Form



Outpatient Department – General Clinics
Royal Liverpool University Hospital
with NBBJ



Take Aways

- Patients First. Consumers Second.
- Service IS Experience. Think of them in tandem
- Wait & Follow-up is part of the visit
- **3C**: Convenience, Cleanliness, Cost
- Create environments where **experience and efficiency** align- for “discerning” patients
- **Flexibility, Connectivity and Sense of Place** are key

Thank you

Full report of US study available for download at

www.cadreresearch.org

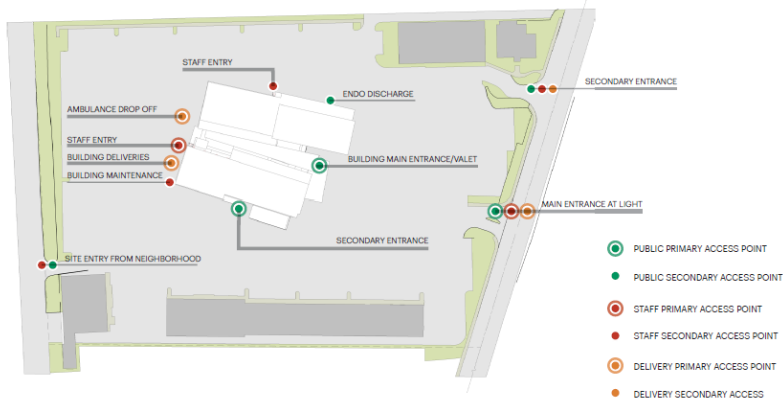
UK special edition to be released in Aug 2017

Contact jho@hksinc.com

Unanda@hksinc.com

X-tra

DESIGNING FOR AN EVER-CHANGING PRESENT



well connected

- Connectedness between clinics on single floor allow for seamless collaboration between providers

- CIRCULATION WITHIN CLINICS
- VISIBILITY THROUGH CLINICS TO EXTERIOR

flexible program

- Modular planning promotes long-term flexibility for the life of the building
- Clinics can expand and contract as needed



CONNECTIVITY



PHYSICAL AND VIRTUAL ACCESS TO SITE

STRATEGIC LOCATION

CONNECTIVITY AMONG:

- KEY SPACES
- KEY TEAM MEMBERS
- PATIENT AND PROVIDER
- HEALTHCARE SYSTEM

EASY ACCESS TO INFORMATION

WI-FI ACCESS

FLEXIBILITY



EXPAND AND CONTRACT IN SIZE

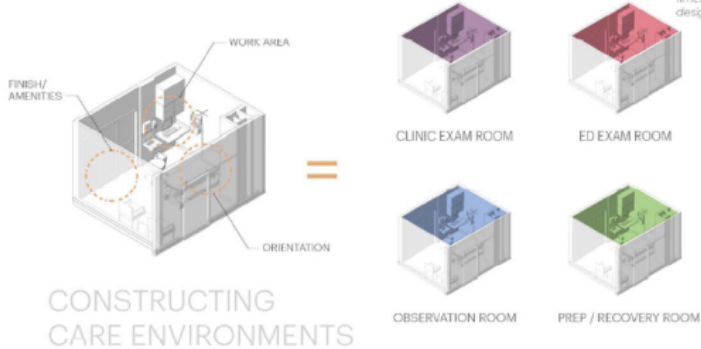
ACCOMMODATE CHANGING FUNCTION AND UTILIZATION

ACCOMMODATE RAPIDLY CHANGING TECHNOLOGY

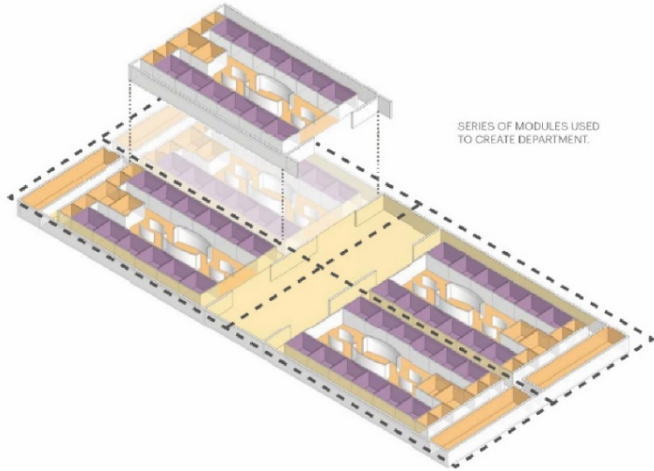
MODULAR APPROACH

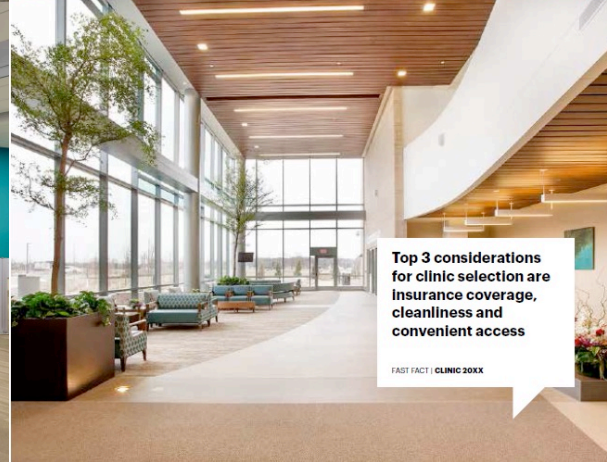
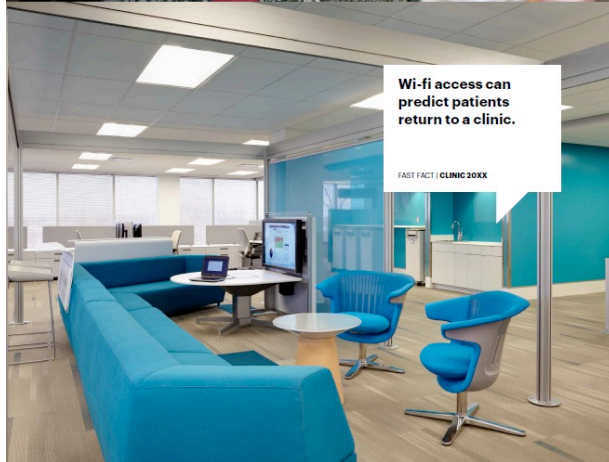
RIGHTSIZING + STANDARDIZATION

CONSTRUCT THOUGHTFULLY
Trends in *unified design* and *prototyping* allow for cost efficient, timely construction, and a flexible design.



- ↑ BRAND CONSISTENCY
- ↑ SPEED TO MARKET
- ↑ ENHANCES BEST PRACTICES
- ↑ MEDICAL EQUIPMENT PURCHASE AND PROCUREMENT





Read the full Clinic 20XX report at
<http://www.cadresearch.org/projects/clinic-20XX>

DESIGN INNOVATIONS

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 and connectivity
- Change “waiting” to value added time via Education/ Engagement/ Patient Prep

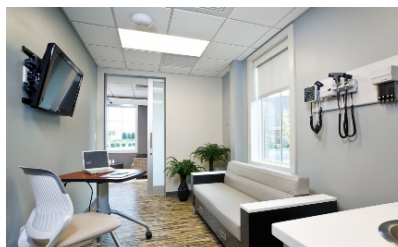
DESIGN INNOVATIONS

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)

CLINIC AS A CONDUIT

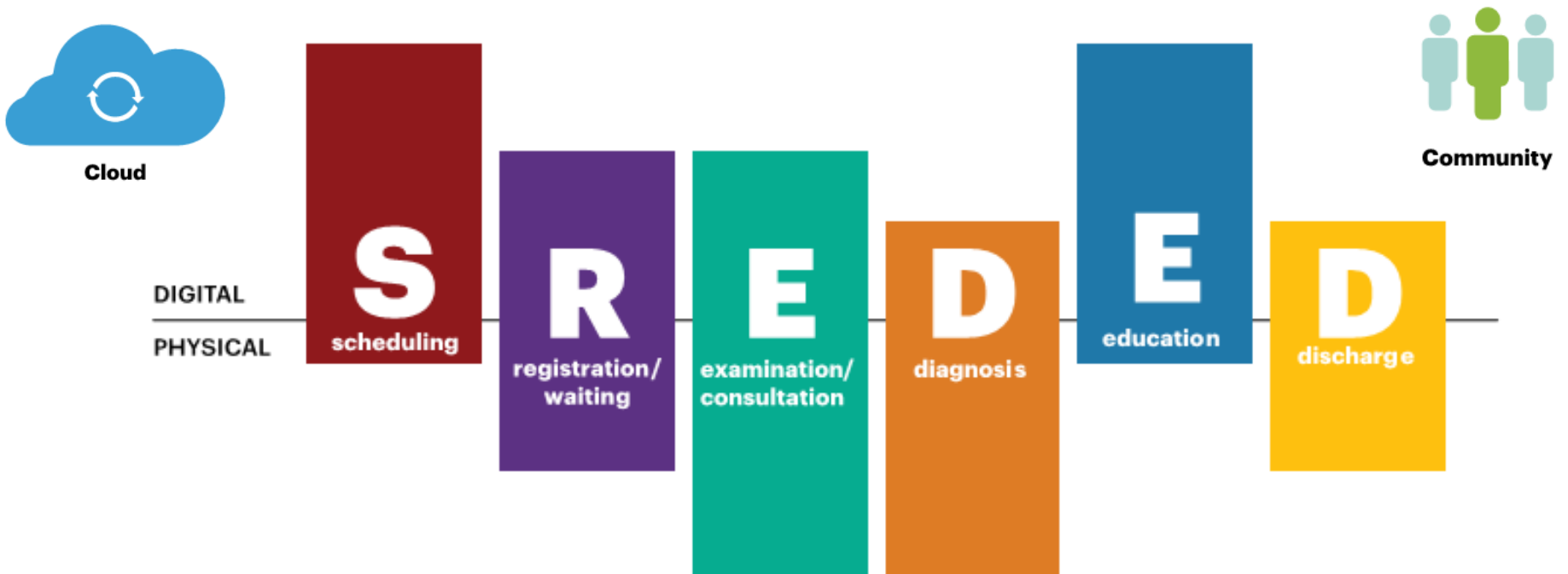


Clinics will be **the first point of contact** between a patient and health system, with the most reach into a community.

It will be a critical portal for **precise and personalized** medicine

Moving forward, clinics must facilitate this connection.
They will serve as the conduit between the cloud and the community.

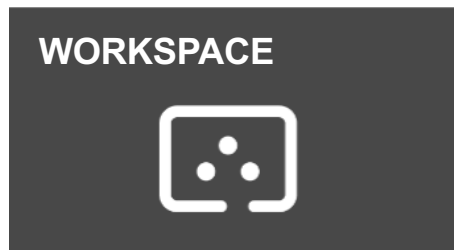
BLURRING BOUNDARIES



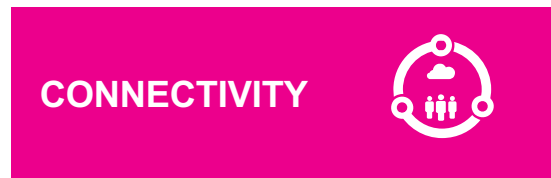
Understanding the shifting boundary between cloud-space and facility footprint. Understanding the connections between clinic spaces, and preparing for the shape-shift that may occur in the future .

Key Principles

2 Spaces



3 Distinct Characteristics



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

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

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

DESIGN INNOVATIONS

Traditional

Discharge Area

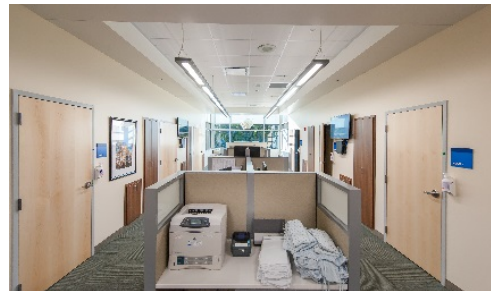
Private Offices and Nurse Stations



Innovations

Check-out in consult/exam room using mobile technology

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



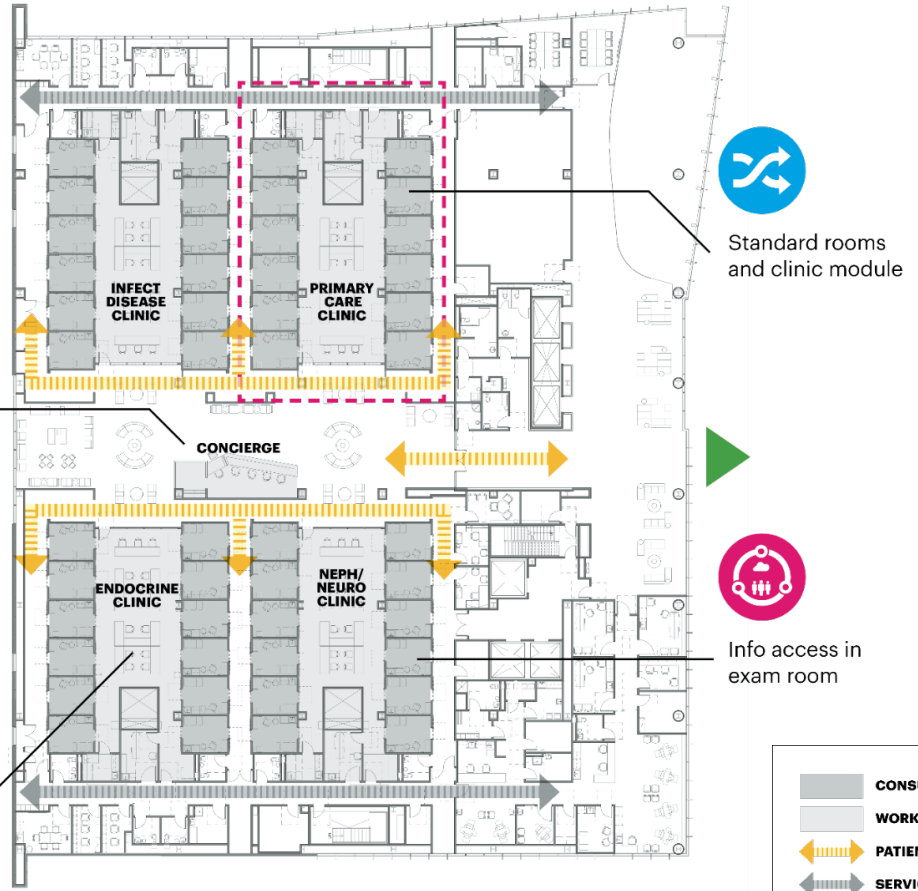
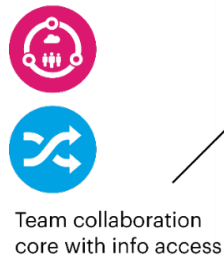
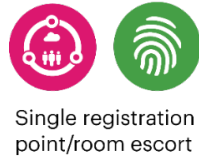
Change-Ready Facilities

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

Making it Real



MULTISPECIALTY CLINICS
CHILDREN'S HOSPITAL OF RICHMOND AT VCU

APPLYING CLINIC 20XX

3C



The 3 Cs: Cleanliness, Convenience and Cost are the basic needs that outpatient facilities must respond to.

Cloudprint/Footprint



The focus on technology for remote and mobile health services is creating clinics that now have cloud prints as well as footprints – space utilization and technology utilization must be simultaneously addressed.

Health Anchor



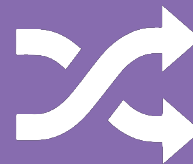
The clinic can serve as an anchor for the community

Connectivity



Clinics have to be positioned to have connectivity regionally to their constituents and systemically to the larger health information systems.

Flexibility



Flexibility to adapt has to be considered at multiple scales ranging from site and building planning to wall systems and furniture.

Sense of Place



A sense of place that promotes health and wellbeing, and is inclusive of different physical abilities and generational preferences can be a differentiator. Spending time knowing the people we are designing for is key.