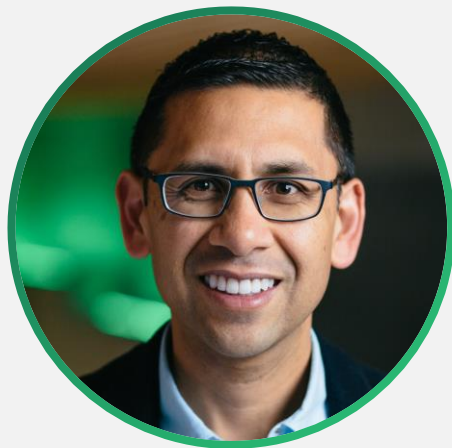**BCG**

THE BOSTON CONSULTING GROUP

Personalization: Moving to a "Segment of One"

The Leadership Institute

OCTOBER 18 2018

Introclutions

Sanjay Saxena, MD

Senior Partner and Managing Director

Global Healthcare Leader: Payer, Provider, Services

- 20+ years of healthcare consulting and industry experience
- Led >100 engagements with hospitals / health systems, national / regional payers, services companies
- Extensive experience working with Boards / management teams on strategy, capability building and transformation

Brett Spencer, MD

Partner and Managing Director

North America Lead: Provider Sector

- Two decades of healthcare consulting experience
- Founder and CEO of multi-specialty physician group; practiced as a Board-certified internist for 18 years
- Specialist in M&A evaluation, post-merger integration, system strategy, care model and payment innovation
- Extensive experience with consumer centric growth strategies, with both payer and provider clients
- Deep expertise in payer-provider collaboration

Objectives for today

1. Review how segmentation has evolved rapidly in the digital age

2. Discuss how personalization is being used today

3. Identify value creation opportunities and critical success factors for use in healthcare

Imagine a world where ...

Segmentation evolution—what we often see

Age

Payer type

Gender

Disease type

Segmentation evolution – behavioral segmentation

	Cost sensitive to health plan contributions	Drug coverage sensitive	Cost sensitive to major health issues	Access seekers	Insurance brand loyal
% of respondents	40	27	13	13	7
Key differentiated preferences	• Low costs (premium, OOP max, deductible)	• High quality physicians • Drug coverage • No limitations on spec./PCPs • Referrals	• Low cost hospital stay/ER visit	• No limitations on access • High quality physicians • No referral needed	• Insurance brand • No limitations on hospitals • Low cost hospital/ER visits
Least important factors	• Insurance brand • Referrals • Limitations on access • High quality Dr		• Referrals • No limitations on specialists/PCPs • High quality Dr	• Low costs (ER visit, copay, hospital visit, coinsurance, deductible, OOP max, premium)	• Low deductible • Good drug coverage • Low premium

Segmentation evolution – behavioral segmentation

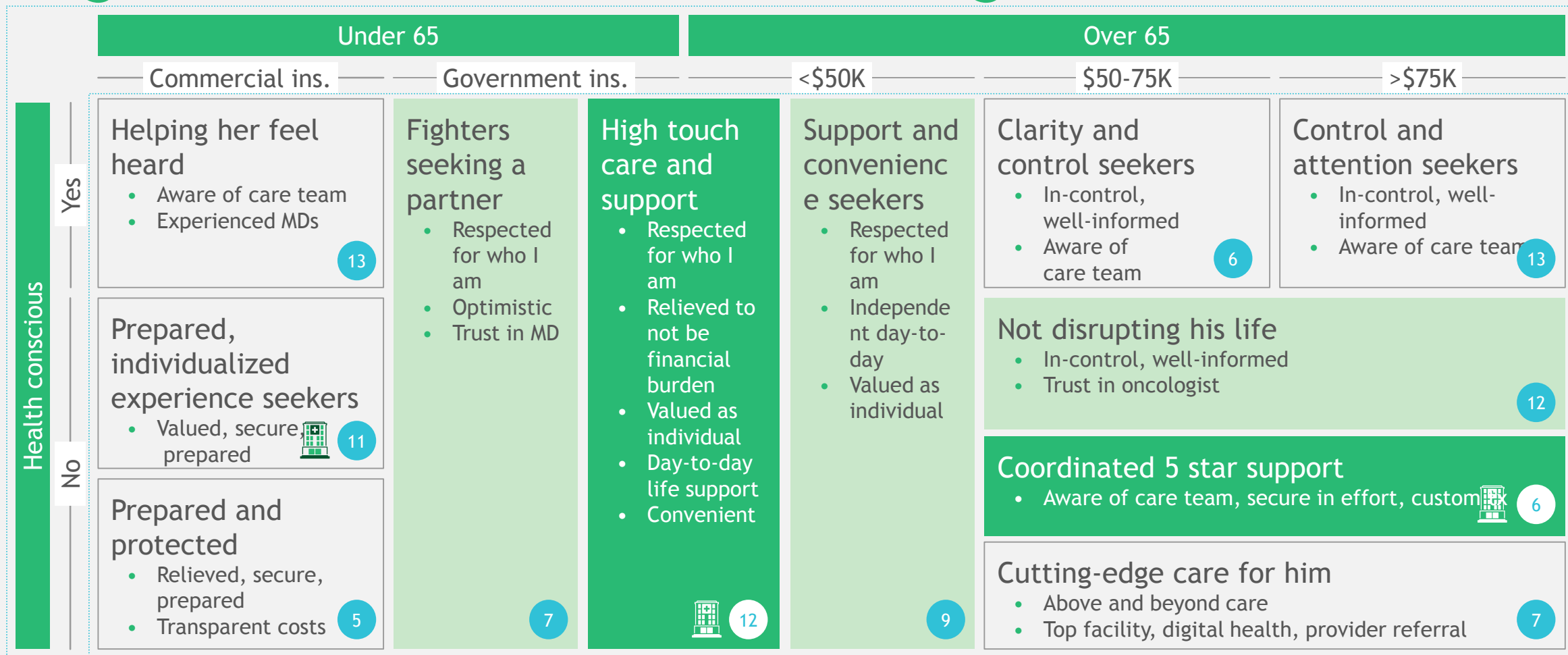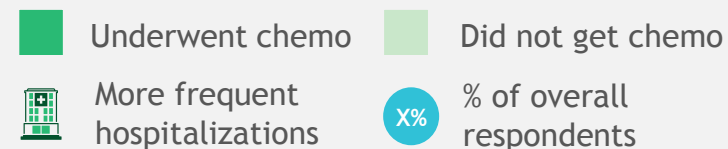|	Prestige seekers	Price shoppers	Experience optimizers	Convenience seekers	Recommendation seekers
% of respondents	25	21	20	18	16
Key differentiated preferences	• Physician affiliation • Ability to see a doctor • Located in medical facility	• Price • Distance	• High clinical quality • Patient experience • Recommended: doctor	• Same/next day appt. • Convenient appt. times • Distance	• Recommended: friends/family • Located in a medical facility
Least important factors	• Recommended: friends/family • Distance • Same/next day appt. • Price	• Ability to see a doctor • Located in a medical facility	• Located in a medical facility • Distance • Ability to see Dr • Same/next day appt. • Price	• Located in a medical facility • Physician affiliation • Ability to see Dr • High clinical quality	

Segmentation evolution – DCG segmentation

	Under 65		Over 65			
	Commercial ins.	Government ins.	<$50K	$50-75K		>$75K

Health conscious

Yes

Helping her feel heard
- Aware of care team
- Experienced MDs

(13)

Fighters seeking a partner
- Respected for who I am
- Optimistic
- Trust in MD

High touch care and support
- Respected for who I am
- Relieved to not be financial burden
- Valued as individual
- Day-to-day life support
- Convenient

Support and convenience seekers
- Respected for who I am
- Independent day-to-day
- Valued as individual

Clarity and control seekers
- In-control, well-informed
- Aware of care team

(6)

Control and attention seekers
- In-control, well-informed
- Aware of care team

(13)

No

Prepared, individualized experience seekers
- Valued, secure, prepared

(11)

Not disrupting his life
- In-control, well-informed
- Trust in oncologist

(12)

Coordinated 5 star support
- Aware of care team, secure in effort, custom

(6)

Prepared and protected
- Relieved, secure, prepared
- Transparent costs

(5)

(7)

(12)

(9)

Cutting-edge care for him
- Above and beyond care
- Top facility, digital health, provider referral

(7)

Each of the demand spaces represents a group with distinct **emotional** and **functional** needs

Legend:
- ■ Underwent chemo
- ■ Did not get chemo
- 🏥 More frequent hospitalizations
- X% % of overall respondents

Source: BCG National Oncology Survey, May 2017. N = 1,459; BCG analysis

Next step -- Personalization: Right service or experience to the Right person at the Right time

For the PATIENT/CONSUMER, this means …

I get a *curated*, *concierge* experience

This health system really knows me …
- My interests and preferences
- My current context
- My health journey with them

I trust them with my information and they respect my boundaries

For the HEALTH SYSTEM, this means …

We *engage with individuals* rather than segments

We have a cross-channel view of consumers

We can tailor messages and experiences at 1:1 level

We *don't waste resources*

Personalization is applicable in many industry verticals

High customer engagement

Healthcare
healthy person

Luxury

Fashion

Travel

Beauty products

Healthcare
chronically ill person

Grocery

Coffee Shop

Low customer engagement

Insurance

Utilities

Credit Cards

Low frequency

High frequency

Healthcare is behind the curve

Healthcare lags other industries in adoption of personalization strategies

Average score by industry on BCGs Global Survey on Personalization

- Technology
- Food/wholesale clubs
- Financial
- Apparel and Dept. stores
- Retail (general)
- Travel
- Entertainment/media
- Drug stores
- Beauty and Luxury
- Healthcare
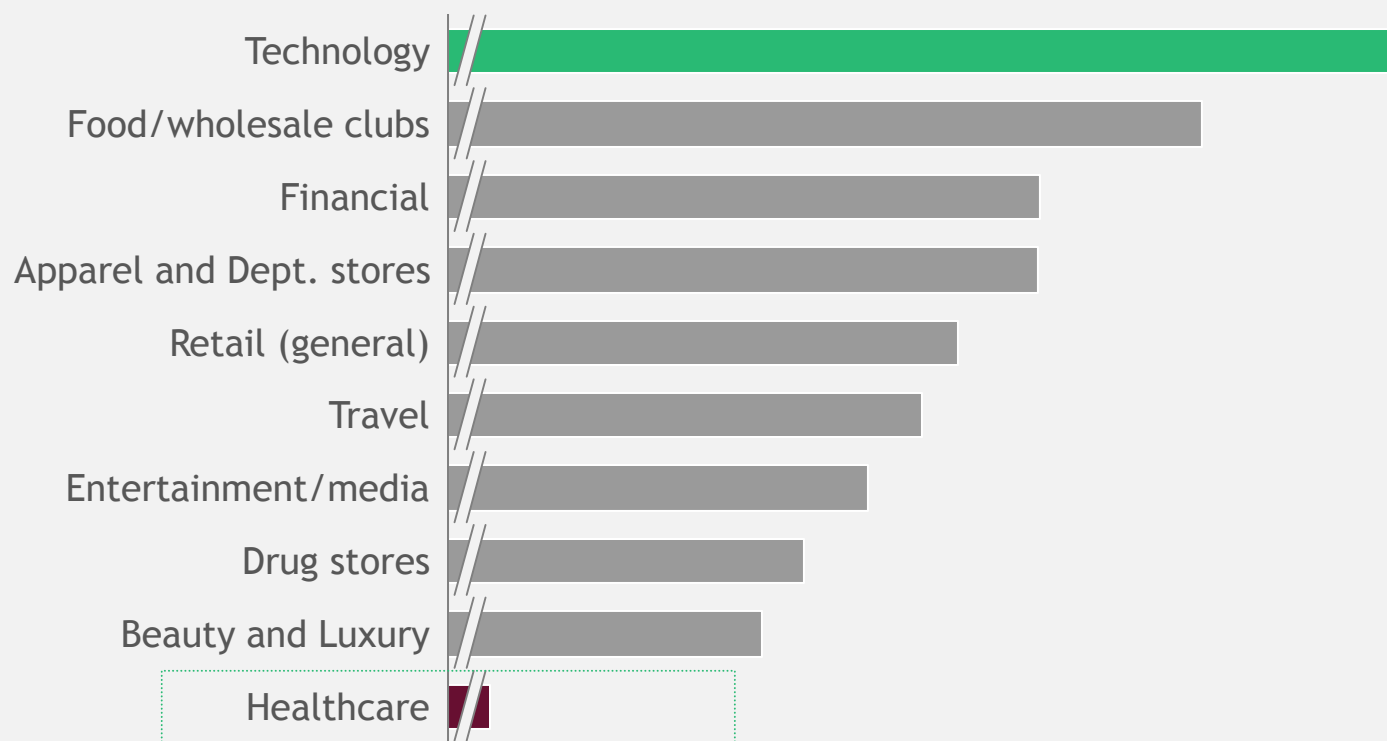
Used at scale, personalization has a **transformational effect on business**
- **5-15% sales lift** on total business
- **+100%** in marketing efficiency
- **5-10 pt reduction** in churn
- **+100-200%** engagement

Industry leaders are already using technology to tailor messages and experiences at scale

SEPHORA

Disney

NETFLIX

QANTAS

amazon

… And needs to catch up quickly

Patients/Consumers
Increasingly "owning" their health, expect experiences tailored to their needs and preferences

Expectation of Personalization

Competitors
Consumer-centric leaders (e.g. Amazon/CVS) actively seeking to disrupt status quo

Imperative to Personalize
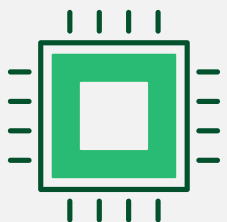
Technology
Evolution of big data/analytics capable of connecting disparate systems (EMR, claims, etc), create holistic patient view

Ability to Personalize
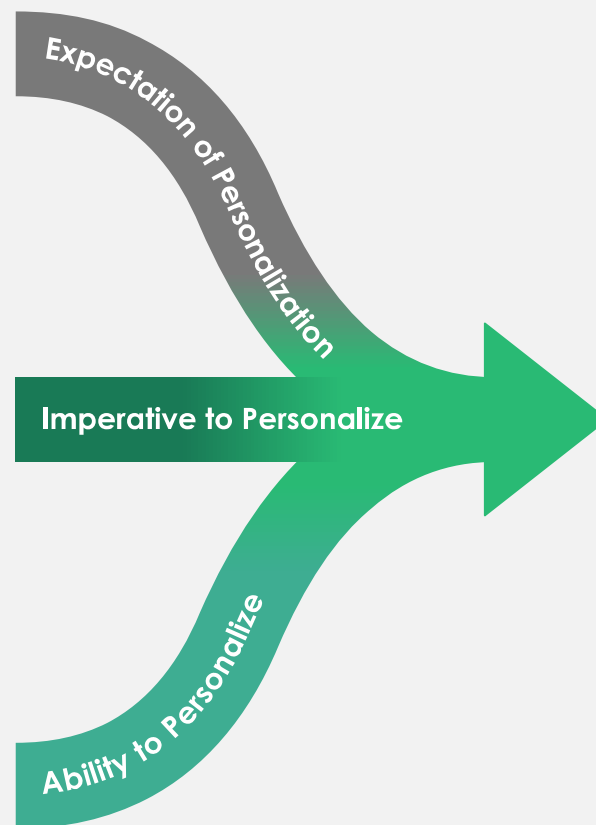
Personalization Today
Using technology to tailor messages and experiences at scale, define growth strategy and competitive differentiation

- Core source of competitive advantage for early movers
- Now possible for all healthcare players (not just digital natives)

Personalization State of the Art

Starbucks set out on a journey to become the most personal brand in the world

Personalization meant unlocking data-driven, individualized offers

Which meant a few challenges had to be addressed:

Highly manual operations

Coarsely segmented, not 1:1 targeting

Single channel contact use

Platform inputs

One view of the customer

How the platform works

Customer data stores

APIs

Experience library

Policy engine

Workflow engine

Orchestration engine

Marketer interface

APIs

Serving millions of consumers daily
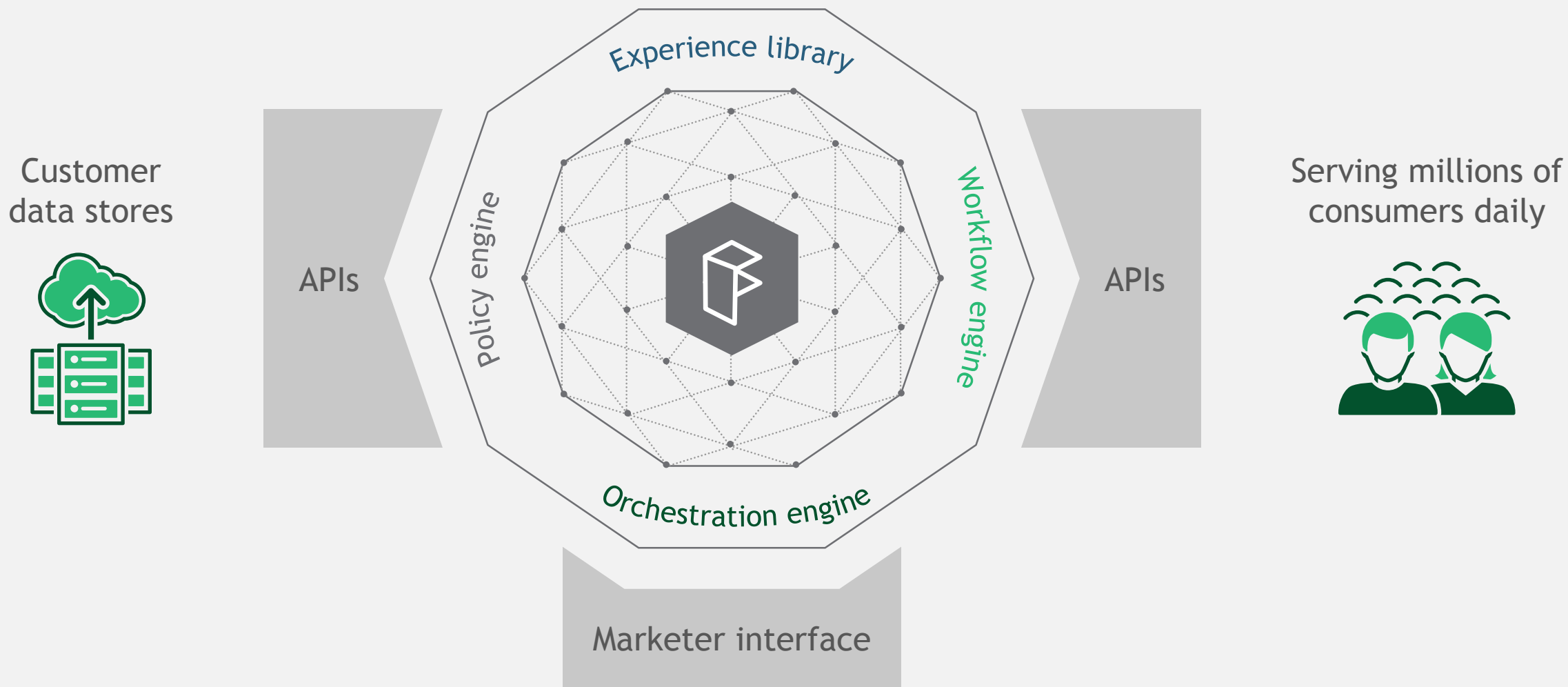
Formation platform combines artificial intelligence with proven goal-driven experiences and a powerful UI for marketers

$150M annualized impact delivered in year 1...

~3x
Improvement in
campaign results run rate

2x
Campaign redemption

8%
Member revenue growth (from traffic & ticket)

HOWARD SCHULTZ, Chairman

"Our new one-to-one personalized marketing capability...will prove to be a retail industry game changer"

KEVIN JOHNSON, CEO

"The personalized Star Dashes and suggested selling are examples of how we are using personalization to provide a relevant customer experience and to increase engagement...we saw 8% growth, the highest growth rate in average spend per active rewards member over a prior year ever, reflecting both increased ticket and transaction frequency."

Source: Starbucks Investor Day – December, 2016 and April, 2017 earnings call

Apply lean startup methodology—speed=impact
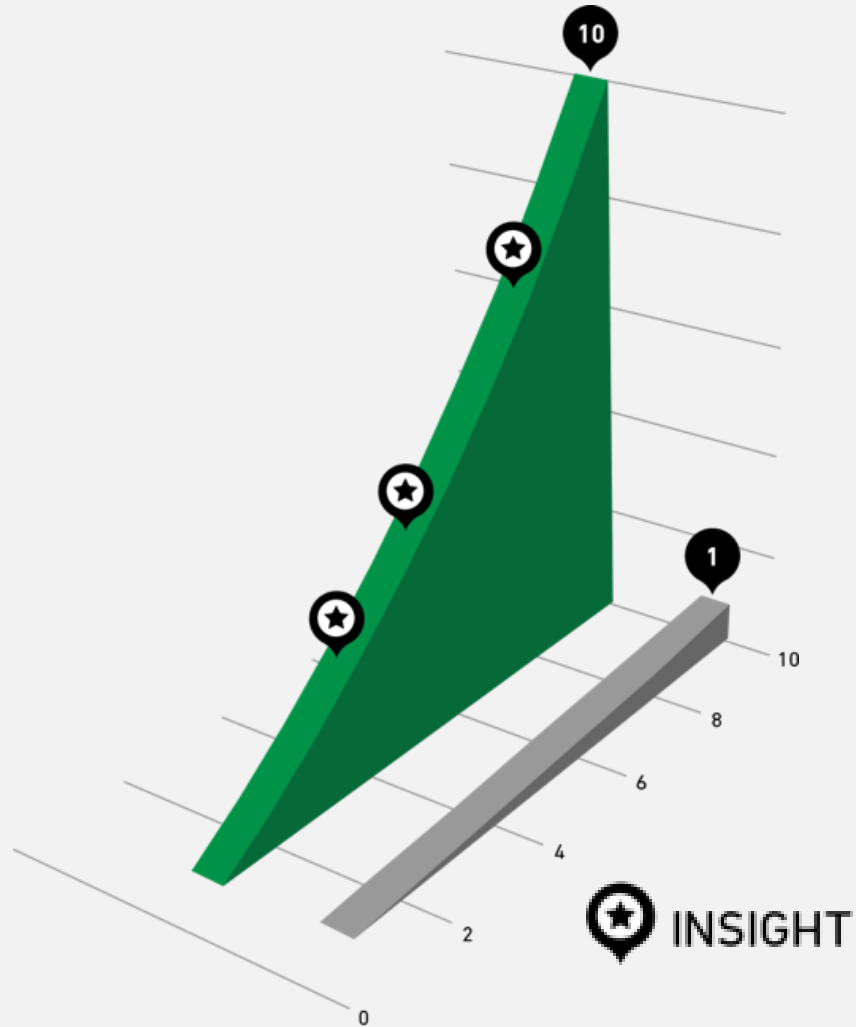
1% **The 1% rule**

→ "A 1% win every week is worth a 65% win in a year"

→ Insights developed along the way can lead to step changes

⟳ **Test and learn**

→ Rapid prototyping, iterative developments make it into production

→ Continuous improvement and delivery

The Starbucks personalization journey

January 2016	June 2016	October 2016	January 2017	2018 …
• 2-week lag • Spreadsheet-driven • Handcrafted email, max 30 variants	• Real-time • Personalized Engine • Hyper-Personalized emails: 400,000 variants/week	• Mobile Offer Card: Offers and tracking in app • Favorite items and stores	• 1:1 Suggestive Selling in App (MOP)	• In-store experience • Geo-tagging
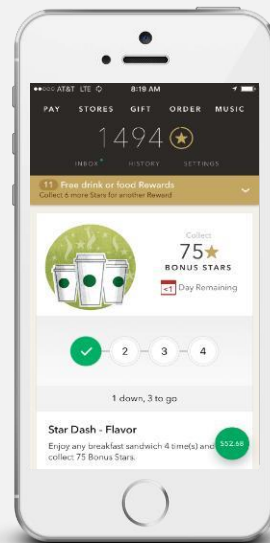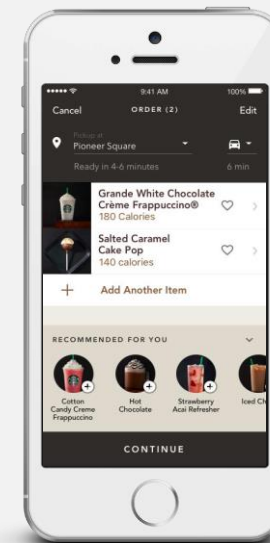
x 30

x 400,000

Personalization in Healthcare – Redefining Care Management
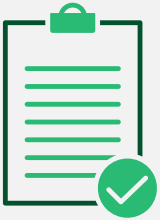
Determine <u>who</u> to target

Identify members with health conditions that can be effectively impacted

Decide with <u>what</u> to intervene

Match each member with the right level of intervention to create positive ROI

Identify <u>when</u> to intervene

Intervene at the "trigger points" where members become at higher risk

Member claims database and advanced analytics to help us radically rethink our client's care program

Who: Expanded client's basic 4-quadrant segmentation

Many limitations to client's segmentation

Segmentation included only 2 factors: Disease burden and functional deficit

Saw a lot of variation within each segment—but client
did not know why

Addressed through more nuanced, 19-cluster segmentation—with greater predictive power

Cluster	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Disease burden	Palliative	SMI/SUD	High					Moderate							Low				
Functional deficit			X					X	X	X	X				X				X
Severe mental illness		X																	
Substance use disorder		X																	
Anxiety and depression				X				X	X			X			X				
Alzheimer's / Dementia					X												X		
Limited support						X		X	X			X	X				X		

What: Shifted to flexible, front-loaded, dynamic approach

Developed "propensity-matching" methodology to evaluate effectiveness of current interventions

Prioritized redesign for high cost, underserved members
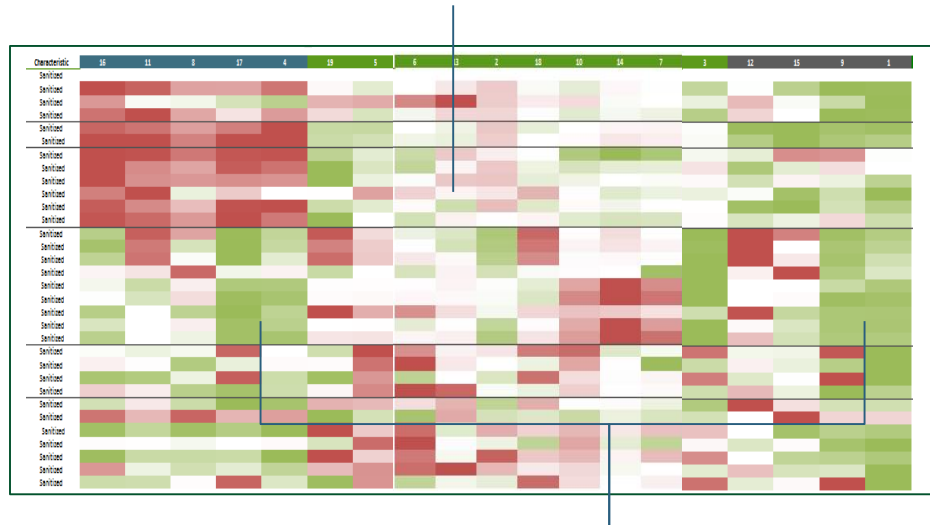
Preserved interventions that were working well

Key learnings

Many members getting no benefit from current program
- Need stricter entry requirements and program size reduction

Biggest impact was in first few months
- Need to front-load interventions

Member needs change over time, but program does not adapt
- Need to empower clinicians to dynamically adjust care

When: Moved away from static, "in for life" model to event-triggered intervention system

Analytics: Conducted time-series analysis to identify most critical trigger moments

Risk of inpatient hospital admission

- Acute admission
- High ER use (2+ visits/mo.)
- 30-day readmission
- High number of physician visits (4+/mo.)
- Observation visit
- Bacterial pneumonia
- Fall-related diagnosis
- High number of new Rx (7+)
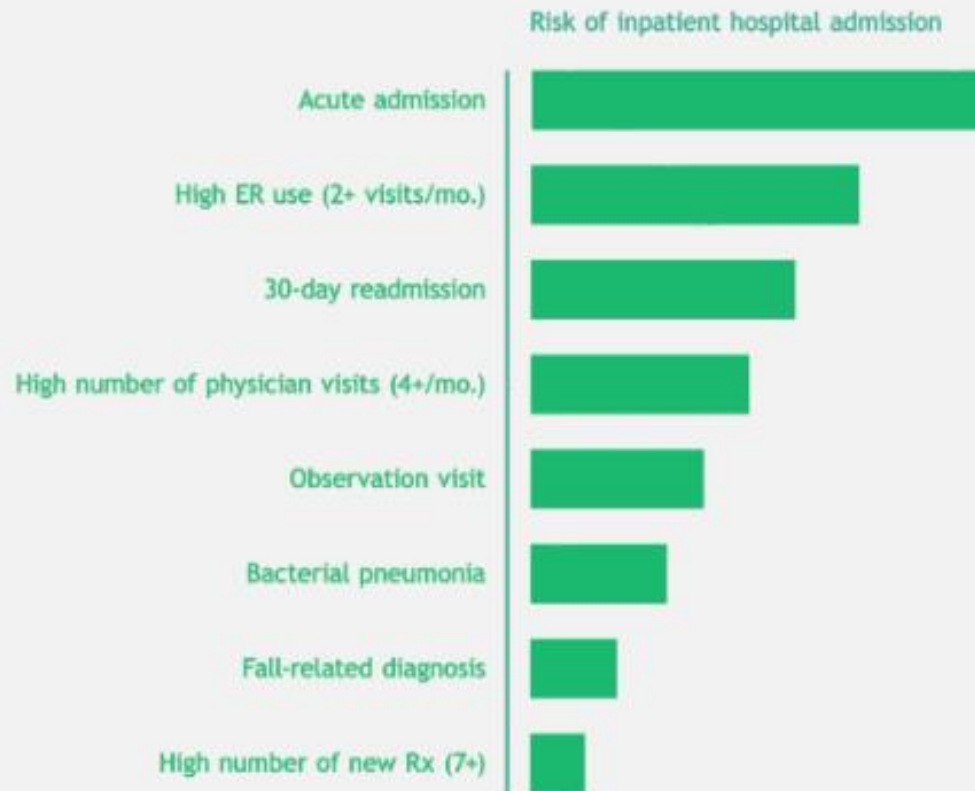
Enabled an "always on" model that constantly monitors all of our client's members

Implementation resulted in significant financial and clinical impact

$1B
Projected savings

$350M
In admin savings

Financial impact

Estimated
15% reduction in admits
in target population

Clinical impact

Personalization in Healthcare

Dramatically improving medication adherence

Improving medication adherence is one of the most significant opportunities in health care—three types:
- Primary adherence
- Compliance
- Persistence

Opportunity could be significant… Missed therapies leading to unnecessary complications

Numerous specific root causes of patient behavior
- e.g., Forget to pick-up, can't afford copay, challenges with side effects, misunderstand how to use, don't believe they need, …

Key is addressing the right root cause, at the right time, with the right intervention, through the right channel

Three generations of adherence programs

1st generation
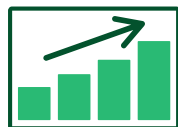
"Mass" interventions, simple targeting

Target simple, recognizable behaviors (e.g., late to fill)

Intervene on key root causes

Highest ROI tactics rolled-out broadly in existing channels

System infrastructure built to deliver, track, measure

2nd generation

Segmented and tailored interventions

Leveraged program data to-date

Segmented patients / therapies (not all created equal)

Definitively quantified ROI by tactic

Combined interventions to maximize ROI

3rd generation

Personalized interventions, longitudinal targeting

Dramatically enriched data set

Longitudinal view of behaviors and interactions

AA/ML to predict *future* behavior and efficacy of tactics

Expanding constituents; systematizing flexibility

Developed predictive algorithms using a longitudinal view of the patient

Stood up an Advanced Analytics environment

Ingested and aggregated extremely rich data set
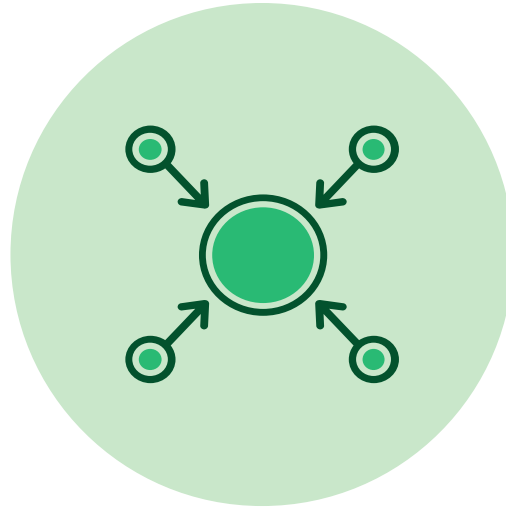
Developed and tested advanced predictive models

One simple example: Predicted likelihood of patient becoming non-adherent & ability to influence

Predictive modeling of next fill behavior…

- Leverage lower-cost interventions, where appropriate

High

Likelihood patient can be <u>influenced using existing tactics</u>
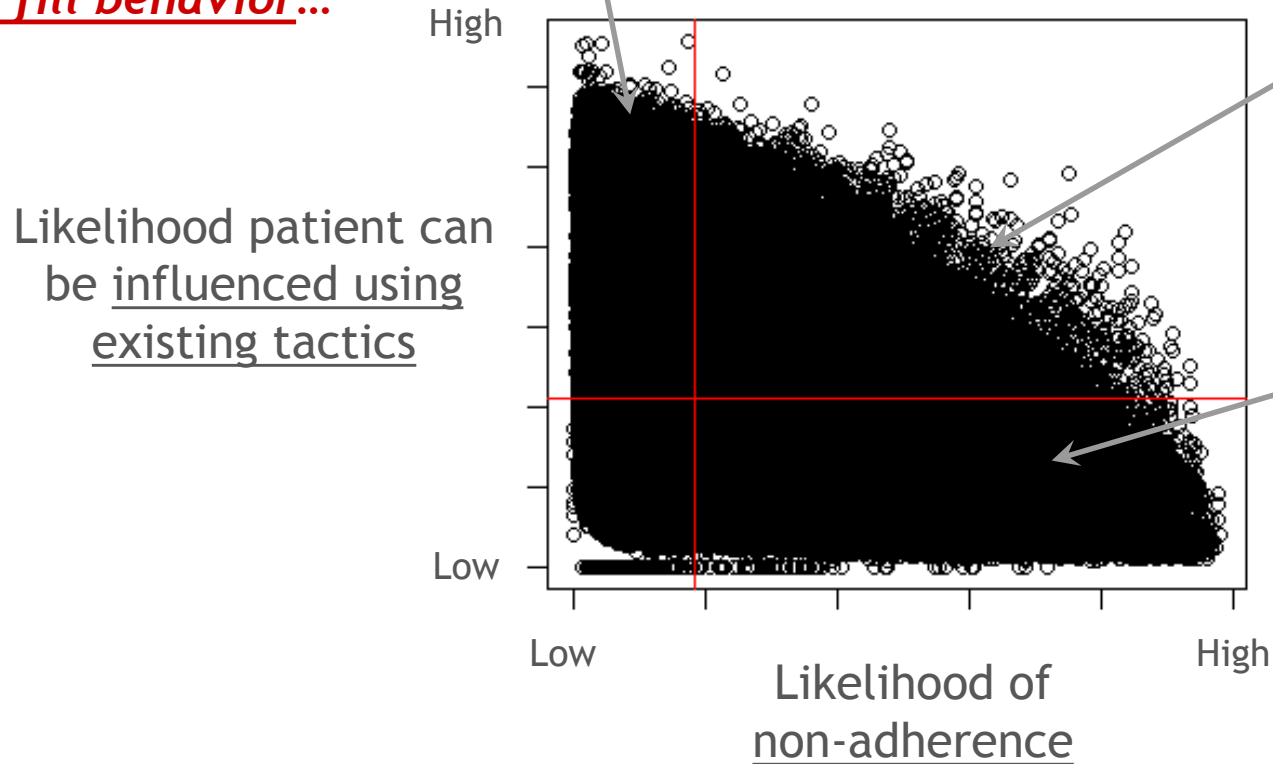
- **Target with existing tactics**
- **Reprioritize / accelerate based on specific ROI**

- Identify large, actionable micro-segments
- Develop new interventions based on micro-segment needs / expectations
- Mini-test /refine

Low

Low .... High

Likelihood of <u>non-adherence</u>

27

Personalization in Healthcare – Business Growth

The personalization effort focuses on three fundamental levers to drive growth

1 **Demand generation:** Transition legacy website from static resource to dynamic, personalized portal—consider partnership to increase traffic

2 **Triage and targeting:** Use AI and advanced analytics to build prioritization engine: Boost payer mix and service mix

3 **Yield:** Improve conversion of interested parties to active patients

Personalization value drivers

Improve status quo

Improve care management and clinical intervention effectiveness, efficiently address specific pain points through sophisticated segmentation

New sources of growth

Anticipate needs, deliver exceptional experience to minimize leakage, capture "up for grabs" population actively shopping for services

Maintain relationships

Create loyalty/stickiness with both patient base and referring physicians/multispecialty groups through targeted support

Personalization offers tangible, near-term value creation

Critical for health systems to act quickly in this space

Consumer expectations are continuing to grow ❯

Consumer expectations shaped by digital experiences with innovative companies from other industries

Competitors—old and new—investing in personalization ❯

Cleveland Clinic investing heavily into patient engagement with digital front door
Amazon launched a team code-named 1492 to develop digital health offerings
CVS/Aetna pursuing personalized offerings
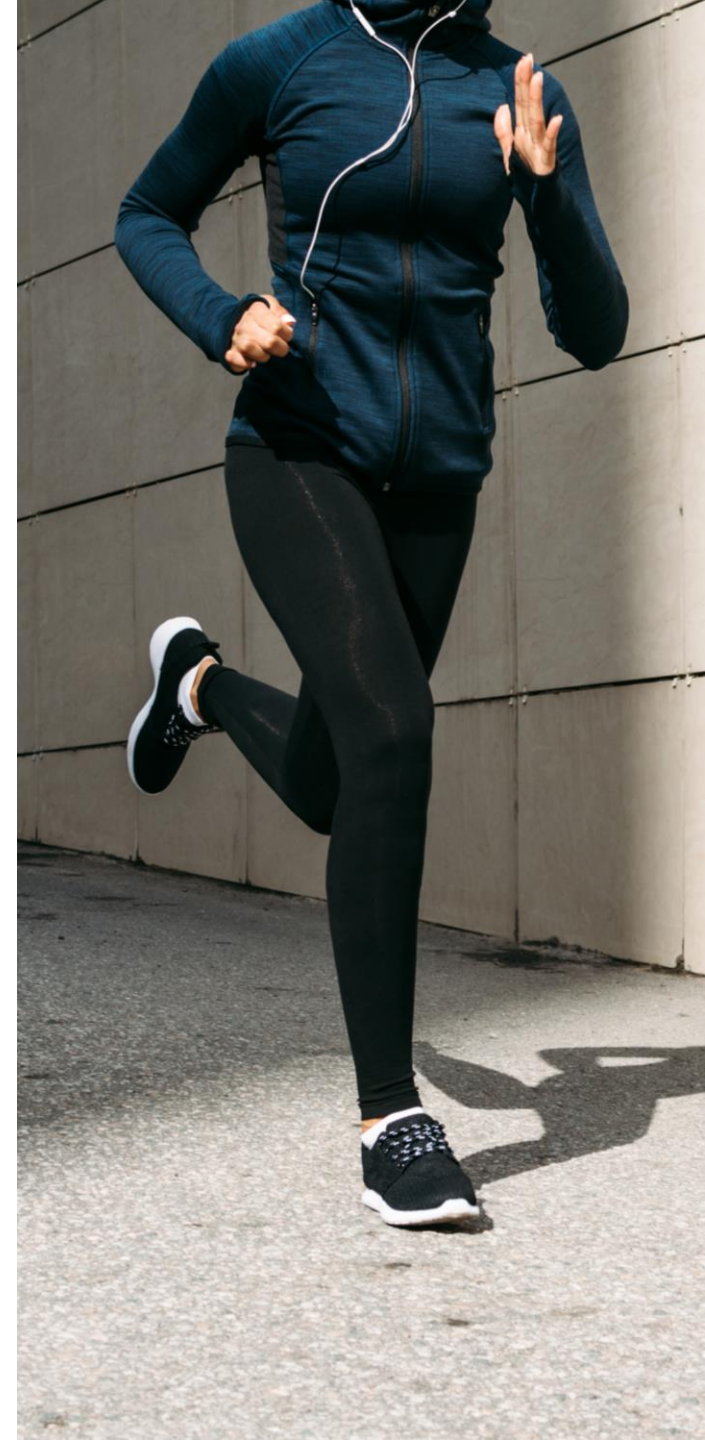
Pace of change in the digital world accelerating rapidly ❯

Technologies have shorter life cycles and lower barriers to entry, leading to more frequent large-scale disruptions and competitive threats
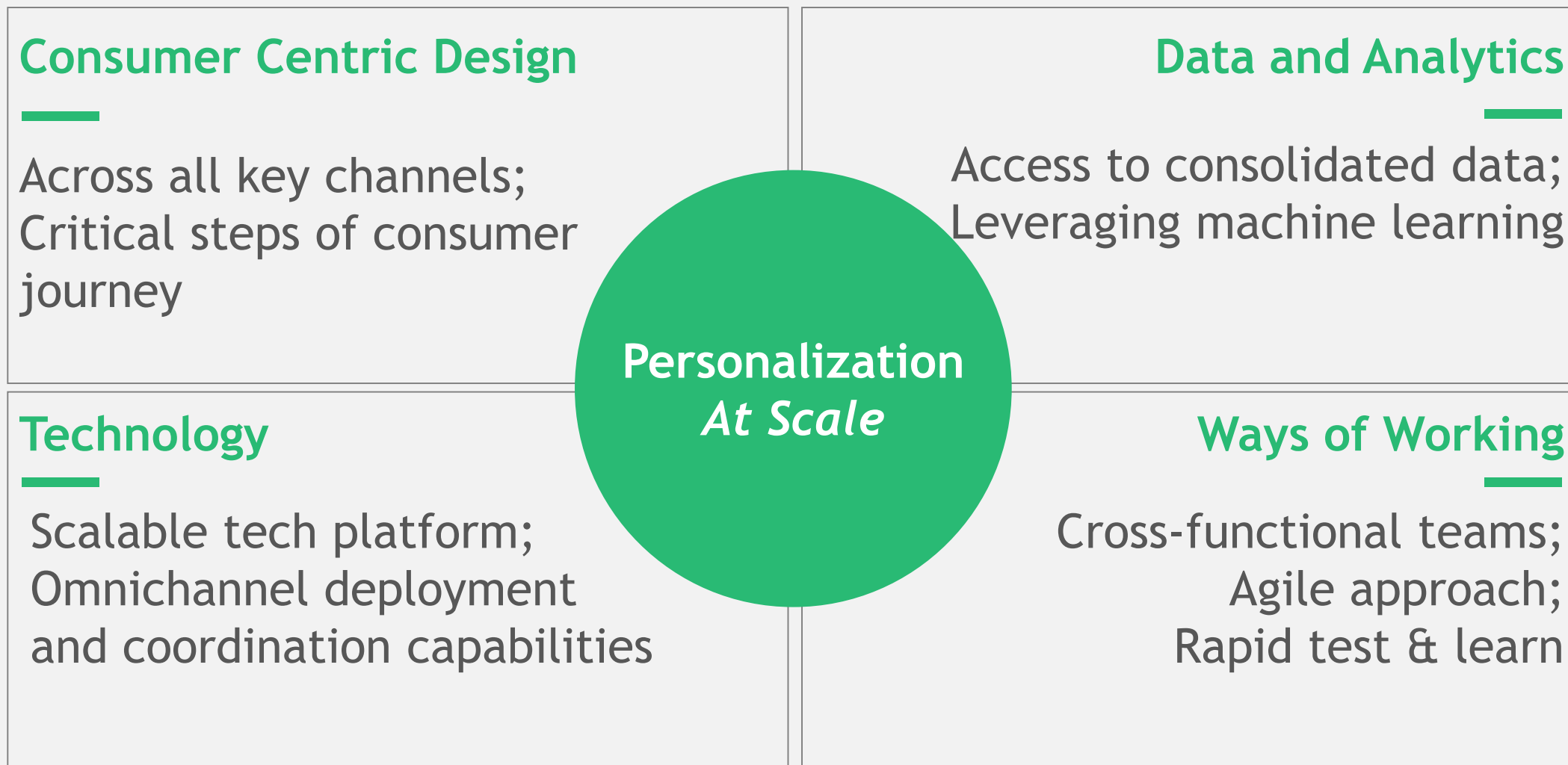
Potential to advance client's strategic position ❯

Digital consumer engagement functionalities can give client an advantage over key competitors
Need to move quickly to development in order to capture leadership position

Four building blocks to deliver Personalization at scale

Consumer Centric Design

Across all key channels;
Critical steps of consumer journey

Data and Analytics

Access to consolidated data;
Leveraging machine learning

Technology

Scalable tech platform;
Omnichannel deployment and coordination capabilities

Ways of Working

Cross-functional teams;
Agile approach;
Rapid test & learn

Personalization
At Scale

Many solutions to get to "yes" and overcome barriers

Why hasn't this happened yet?
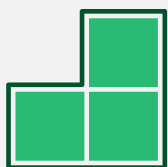
Enough data

The right data

Platform to deliver

Set of partners that can provide the data and / or platform

Consortiums of like minded systems

Search engines (e.g., WebMD)

Payers

Retailers: Big Box (Walmart), Virtual (Amazon)

Credit cards

Pharmacies

Vendors (TeaLeaves, RedVentures)

Wellness (FitBit, Apple)

May be possible to build some capabilities internally, but speed to market, usability increased by exploring range of partners with likely mutual interest

Questions?