Advisory Board

The decisions you must make about digital experience and convenience
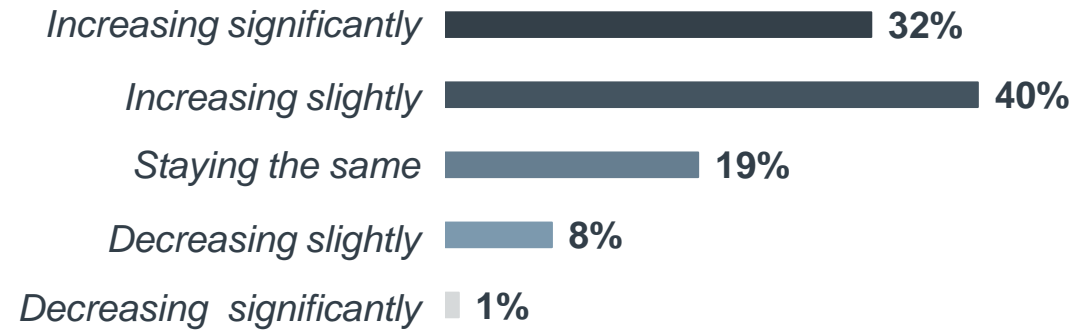
Presented by John League
leaguej@advisory.com

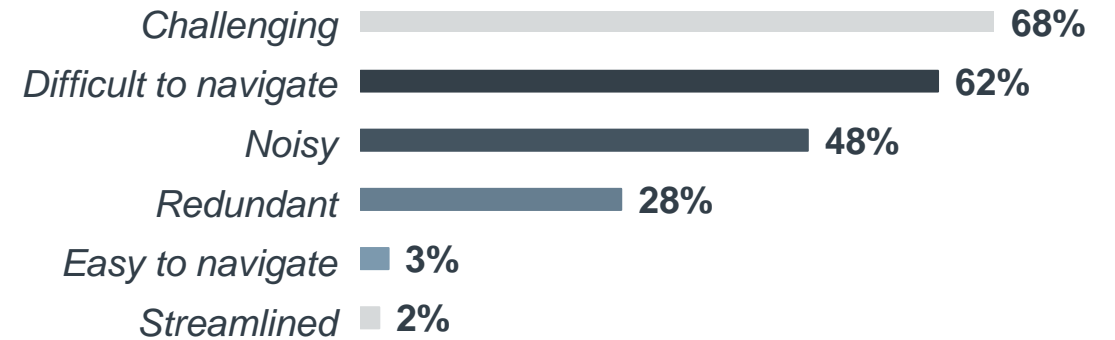# Digital health: "challenging and difficult to navigate"

Leaders are excited about the impact of digital health, but implementation is challenging

How do you see digital health technology adoption among hospitals trending over the next three years?

- Increasing significantly — **32%**
- Increasing slightly — **40%**
- Staying the same — **19%**
- Decreasing slightly — **8%**
- Decreasing significantly — **1%**

How would you describe the digital health solution market?

- Challenging — **68%**
- Difficult to navigate — **62%**
- Noisy — **48%**
- Redundant — **28%**
- Easy to navigate — **3%**
- Streamlined — **2%**

Leaders want to:

☑ Understand what's available   ☑ Not waste money   ☑ Avoid "death by pilot"

Advisory Board

Advisory Board interviews and analysis.

There are a lot of decisions to make (especially on AI)

How do you respond to technical challenges?

What staff and resources do you need to implement and govern?

What problems do you want to solve and how do you prioritize?

What is your communication approach?

Who are the partners you want to work with?

Who is liable/responsible for data management issues?
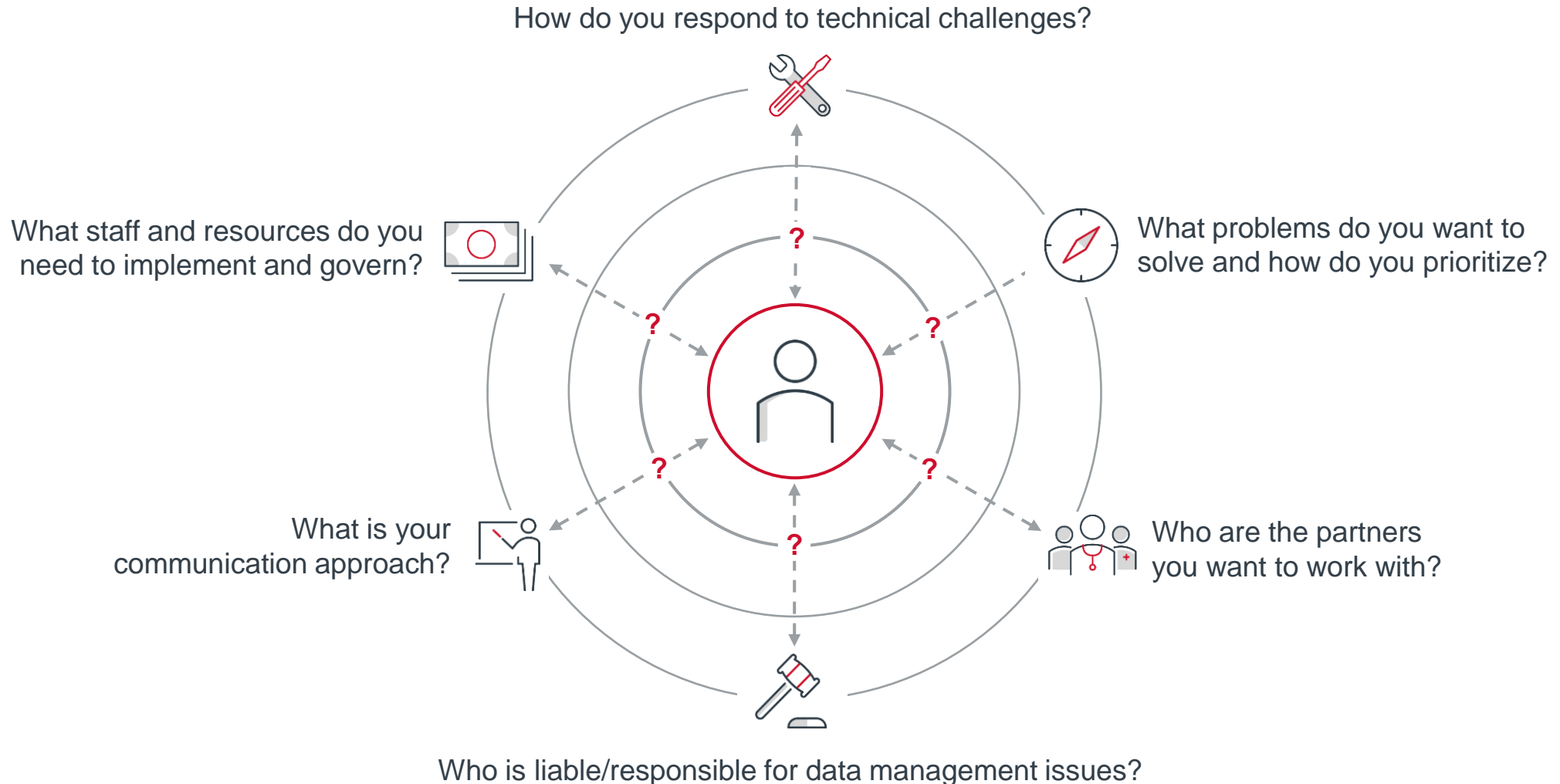
What do you want to talk about today?

Seven things that are actually happening, not just vibes

1. Overall digital health investment is down—but market leaders continue to invest

2. Access and experience are the emerging standard on which healthcare will be judged

3. Telehealth works, but are we thinking big enough about it?

4. Clinicians need help from both new and basic technology

5. Relationships are hard—especially between vendors and customers

6. ROI is real (but elusive)

7. AI is not inevitable in healthcare—it's already here

Advisory Board interviews and analysis.

What do you want to talk about today?

Please scan the QR code to select up to 4 preferred topics for today's discussion.

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Market leaders continue to bet on digital health

	Vertically assembled organizations	**Health plans**	**Big retail**	**Big tech**
Why digital?	Generate revenue	Substitute/reduce costs	Improve core operations	Generate revenue
Use of digital today	• Strengthen and integrate assets (e.g., hybrid and home-based care, pharmacy, insurance) • Invest in digital health companies	• Partner, acquire, and/or invest in digital health companies	• Expand into hybrid care delivery, pharmacy, scientific research • Invest in DH companies	• Build solutions for health care orgs and/or DTC digital health products • Invest in DH companies
Ambition	• Embed, retain customers in ecosystem • Use digital to tie capabilities into differentiated offerings	• Expand member touchpoints and influence member decision-making • Improve member experience, satisfaction, and engagement	• Expand the customer relationship into an ongoing patient relationship • Be the one-stop shop for customers	• Use digital health as an entry point into health care • Align existing capabilities with digital health technologies

Advisory Board interviews and analysis.

Amazon iterates on unprecedented scale

Services shuttering with Amazon Care closure

Chat function
Text-based chat with nurses initiated with in Amazon's app

Video visits
Virtual visits with a doctor or nurse practitioner for low-acuity care needs and referrals

House calls
Nurses dispatched to home or office for in-person services

Services Amazon is keeping (or seeking)

✓ **Amazon Pharmacy**
Prescriptions delivered to patients' home or office

✓ **One Medical** Access to 188 offices and virtual care services in 29 markets with a $199 annual membership

✗ **Signify Health** *(reported bidder, but failed)*
Value-based care platform with home-based care services

Key questions to consider for sector disruption potential

? Can Amazon-One Medical expand to more markets?

? How strong is the appetite to disrupt owned businesses?

? Which Amazon business goals take priority?

? How urgently will peers feel compelled to respond?

Advisory Board interviews and analysis.

DISCUSSION

- What are your criteria for killing off underperforming digital health projects (or any projects)?

- How do you think about where you should compete vs. where you should partner?

Advisory Board interviews and analysis.

Access and convenience are the emerging standard

Five core digital capabilities in other industries

Functionality	The usability and accessibility of a solution; a functional solution will work as intended, requiring minimal effort from the user
Customer service	The ability of an organization to respond quickly, empathetically, and efficiently to consumer challenges
Self-service	A customer's ability to solve their own problems, make decisions, and perform specific tasks autonomously
Personalization	The ability to offer consumers customized experiences based on demographic data, engagement, location, and articulated needs
Omnichannel	The ability to provide consumers the same high-quality experience across multiple channels, both digital and in-person

Healthcare is too hard to access

67%

of consumers say "every step of healthcare process is a chore"

61%

of consumers know people who will avoid care because it is too hard to access

Source: Accenture Digital Consumer Experience Survey, 2022.

Advisory Board interviews and analysis.

Digital convenience = "death by patient portal"?

New deluge of patient messaging creates new challenges

57% ↑
increase in patient portal messages to physicians since beginning of Covid-19 pandemic

$65
Average reimbursement per physician email response at UCSF

Notable health systems charging patients for some message responses from physicians

- Cleveland Clinic
- Johns Hopkins
- Northwestern Medicine
- Lurie Children's
- Northshore University
- UCSF

> "Like most physicians, I was getting many more messages than I had before the pandemic and was spending multiple hours a day answering them. I told my husband that **I could fill my entire day just responding to patient messages** and never actually examine anyone."
>
> Michael Stillman, MD

Source: Zarefsy N, "What's adding to doctor burnout? Check your patient portal inbox," American Medical Association, February 3, 2023; Diaz N, "More hospitals charging for MyChart messages," Becker's Health IT, November 28, 2022; Stillman M, "Death by patient portal," JAMA, June 30, 2023.

- What solutions—other than charging for responses—are there for inbox demands on clinicians?

- Are there "no regrets" investments in patient and member self-service? What are they?

Advisory Board interviews and analysis.

Telehealth works

Telehealth does not lead to unnecessary utilization

- Total utilization remains steady even when telehealth utilization increases from 2019 through 2021 (Advisory Board)
- Most patients who have a telehealth visit do not require an in-person follow-up within 90 days (Epic)
- Use of telehealth services for management of chronic conditions was comparable, or even more efficient, than in-person care (Johns Hopkins)

Telehealth care quality is high relative to in-person care

Primary care

13 of 16

Comparisons between telehealth and in-person care in which **telehealth had significantly better performance or no difference** for a given condition

Specialty care

87%

of cases in which provisional **diagnosis from a virtual visit matched the in-person reference** diagnosis

Consumers continue to use and want access to care via telehealth

67%

of consumers who report using telehealth within the past year, **vs. 37% in 2019**

94%

of consumers who used telehealth within the past year who say they **"definitely will"** or **"probably will"** use telehealth services in the future

Source: "Telehealth claims analysis: Is telehealth really here to stay?," Advisory Board, February 2022; "Telehealth unlikely to require in-person follow-up within 90 days," Epic Research, December 13, 2022; "Outcomes of In-Person and Telehealth Ambulatory Encounters During COVID-19 Within a Large Commercially Insured Cohort," JAMA Network, April 2022. Baughman D et al., "Comparison of quality performance measures for patients receiving in-person vs. telemedicine primary care in a large integrated health system." *JAMA Network Open*, September 26, 2022; Demaerschalk B et al., "Assessment of clinician diagnostic concordance with video telemedicine in the integrated multispecialty practice at Mayo Clinic from the beginning of Covid-19 pandemic from March to June 2020," *JAMA Network Open*, September 2, 2022; Commins J, "JD Power survey shows consumers embrace telehealth," *healthleaders*, September 29, 2022.

Are we thinking big enough?

AMA's five steps to rethink telehealth

1. Determine which services to offer
2. Choose the right platform
3. Know relevant rules and policies
4. Establish team-based workflows
5. Assess and streamline

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DISCUSSION

- What choices are you making about telehealth?

- What is the next evolution beyond virtual visits of telehealth for your organization?

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Clinicians get help from both the new and the basic

New solutions are impressive…

Nuance DAX ambient documentation solution

50%
Reduction in physician documentation time

90%
of clinicians say the solution improves documentation

Intelligent automation solution for pre-visit intake process

70%
Pre-visit intake completion rate

40
Minutes saved per MA per day by removing "librarian" work

25%
Increase in care manager capacity

…but basic improvements are essential

Top 3 "back to basics" strategies we see in the market for 2023

- Prioritize clinical staff needs for technology investment
- Maximize value of existing systems (i.e., are you using all of the functionality built in to the EHR?)
- Make basic functions like order sets as accurate, effective, and easy to execute as possible

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Past tech investments weren't designed to help clinicians

Technology		Intended outcome		Actual impact on clinicians
Electronic health record	▶	Designed to make patient health data centralized and accessible	▶	Burdens clinicians with overwhelming amounts of documentation and information overload
In-basket messaging systems	▶	Intended to promote a patient-centered experience	▶	Floods clinician inboxes with too many messages to respond to
App-based tools	▶	Meant to make tools easily accessible on mobile devices	▶	Requires clinicians to constantly switch between apps and silos information

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- What's the easiest thing you could actually do to make clinicians' day-to-experience easier?

- How do you avoid stagnation after adopting or developing an effective new solution?

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Relationships are hard

Hot takes on relationships between healthcare organizations and tech vendors

"Once an organization has signed a sales contract, they and their subsequent requests are no longer our number one priority. **It's on to the next sale."**

"A lot of vendors came to me and said, 'we want to be your partner,' but I always said, **'I want you to be a good vendor, and then maybe over time we can become partners**.'"

"I wish vendors would **accept how many valid reasons there are behind saying no."**

"**Health care organizations are 1,000 points of 'no.'** If they don't engage IT and clinical teams early and get everyone on board and willing to support implementation, they are wasting their money."

"If I had one ask of our partners, It's that they **stop relying on vendors to run circles around their middle management to accomplish something**."

"Stop looking at product specific specs. The size, shape, and number of clicks of this new thing you bought—none of it matters. **It's the strategy and vision that you need to look for."**

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Financial pressures sour relationships

Health system financial performance in FY 2022

System	Net Income	Operating Income
Ascension	($1.8 B)	($0.9 B)
Cleveland Clinic	($1.2 B)	($0.2 B)
CommonSpirit	($1.9 B)	($1.3 B)
Kaiser	($4.5 B)	($1.3 B)
Mass General	($2.3 B)	($0.4 B)
Providence	($6.1 B)	($1.7 B)
Trinity	($1.4 B)	($0.2 B)
UPMC	($0.9 B)	$0.2 B

Market realities make investment difficult

"We have documented ROI for a solution providers say they need, but we can't get buyers."

Digital health vendor CRO

"We have razor-thin margins that we cannot run any risk of wasting."

Health system CIO

"A lot of startups—especially VC backed ones—are giving away services at below market rates."

Digital health vendor CEO

DISCUSSION

- How open are you with vendors/customers about your own operating environment?

- What one thing would make sales conversations easier?

Advisory
Board

ROI is real

Sample ROI from digital health vendors

300%

Increase in co-payment collections

Notable

5

Appointments added per clinic per day

Nuance

6

Minutes on average for physicians to deliver care

Bright.md

$576K

Net reimbursement in audio-to-video visit conversion

Optum

Advisory Board interviews and analysis.

ROI is elusive

> "When you focus on use cases instead of fundamentals, ROI is **siloed**."

Healthcare marketing executive

> "The products don't talk to each other, so it's **harder for customers to see** ROI."

Digital health vendor CEO

> "ROI in healthcare is so **fluffy**."

Health system digital leader

> Most **health systems are not instrumented in a way to quantify the impact of digital** in critical terms of growth, cost reduction, quality and outcome improvements and operational efficiencies. And when we do try to quantify, various internal stakeholders all take credit for the same things—which leads to double counting results and skewing our picture of impact.

Sara Vaezy
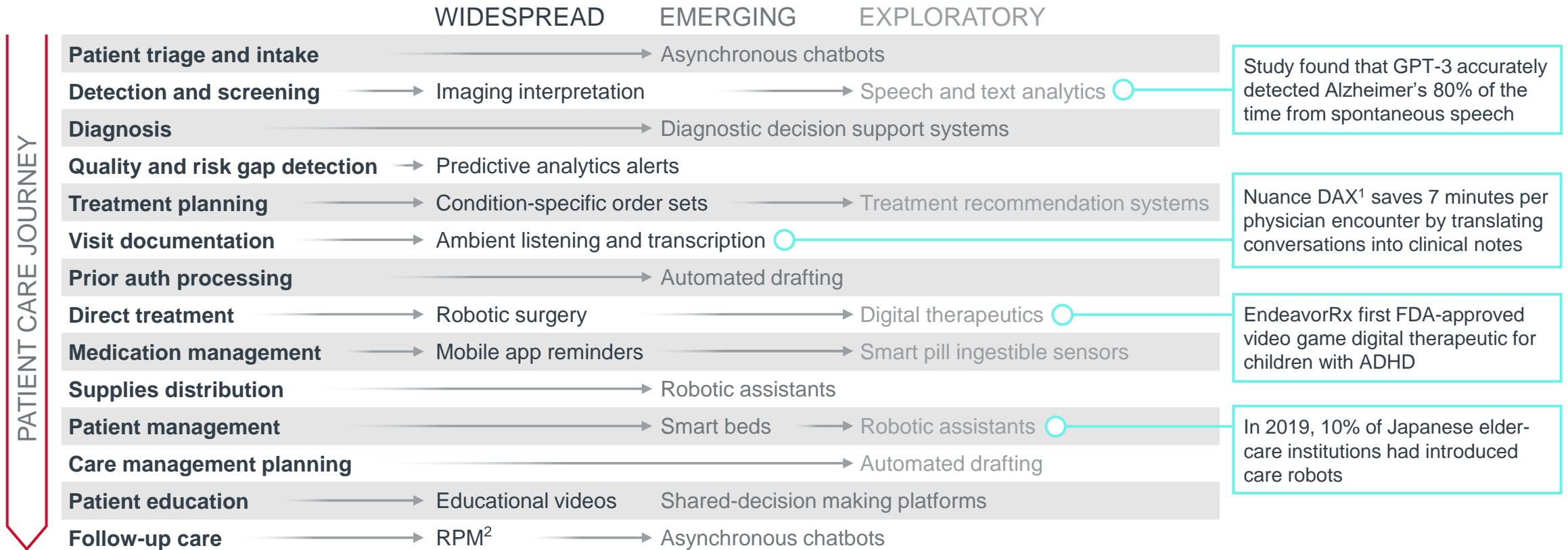CHIEF DIGITAL AND STRATEGY OFFICER
Providence

Source: Vaezy S, "Digital Investments In Healthcare Must Be Measurable, Not Just Marketable: Building A Case For RODI," *Forbes*, January 18, 2023.

DISCUSSION

- What factors should we consider when assessing ROI on digital health solutions?

- What have you learned from success and failure that can't be quantified?

Tech increasingly capable of more tasks, often with AI

Adoption of select clinical workforce technologies across the patient care journey

	WIDESPREAD	EMERGING	EXPLORATORY

PATIENT CARE JOURNEY

Patient triage and intake		Asynchronous chatbots	
Detection and screening	Imaging interpretation		Speech and text analytics ○
Diagnosis		Diagnostic decision support systems	
Quality and risk gap detection	Predictive analytics alerts		
Treatment planning	Condition-specific order sets	Treatment recommendation systems	
Visit documentation	Ambient listening and transcription ○		
Prior auth processing		Automated drafting	
Direct treatment	Robotic surgery	Digital therapeutics ○	
Medication management	Mobile app reminders	Smart pill ingestible sensors	
Supplies distribution		Robotic assistants	
Patient management		Smart beds	Robotic assistants ○
Care management planning			Automated drafting
Patient education	Educational videos	Shared-decision making platforms	
Follow-up care	RPM[2]	Asynchronous chatbots	

Study found that GPT-3 accurately detected Alzheimer's 80% of the time from spontaneous speech

Nuance DAX[1] saves 7 minutes per physician encounter by translating conversations into clinical notes

EndeavorRx first FDA-approved video game digital therapeutic for children with ADHD

In 2019, 10% of Japanese elder-care institutions had introduced care robots

Sci-fi ambitions handcuffed to fax machine reality

Doximity generative AI platform

Provides physicians an **easy way to accelerate** and complete administrative and clinical tasks...

DocsGPT BETA

Write a statement of support for social security disability for my patient with bipolar disorder.

Try Prompt →

Trained in medical terminology and shorthand; knows how to format clinical documentation and common medical correspondence.

May occasionally generate incorrect information. Confirm any factual references before using clinically.

Write home care instructions for an 8 y/o with asthma in the style of Dr. Seuss.

Try Prompt →

Fluency in dozens of languages; can translate documents and produce multilingual patient education.

Is not HIPAA-compliant; do not include PHI in prompts.

Free Fax to Insurers

○ **ae** Aetna
833-596-0339

○ Anthem Anthem
800-754-4708

○ Cigna
615-401-4642

○ H Health Net
800-281-2999

▢ Send Fax

Doximity members can fax letters directly to insurers using our digital fax service. To enter Doximity's HIPAA compliant

...but also offers **free fax service**, because most communication between providers and payers still relies on fax machines
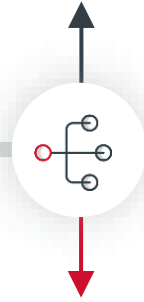
DISCUSSION

- Are the methods you have been using to evaluate technology going to be effective for AI?

- Is AI a technology that is centrally managed or governed at your organization? By whom?

Redefining what we mean by innovation

Must be "big bang"

Will be "viral"

Costs only upfront

Must be novel

More likely incremental, non-linear

Must be nurtured, fostered

Costs are upfront and recurrent

Can simply be new for you

Shift to:	Shift to:	Shift to:	Shift to:
• Lowering the bar on what is defined as innovation • Democratizing who can identify and drive innovation	• Selecting innovations that you're willing to foster • Envisioning innovation work as a cascade of enfranchisement	• Mapping out the steady state post innovation • Inventory what would be needed to upkeep, adjust	• Looking into the past for ideas as much as the present • Crowdsource, transfer solutions from business units

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