



DATA-DRIVEN HEALTHCARE EXPERIENCES:

A NEW ERA OF PERSONALIZATION
AND PREFERENCES

IN PARTNERSHIP WITH



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ABOUT THE RESEARCH

Welcome to the 2023 Adobe Data-Driven Healthcare Experiences: A New Era of Personalization and Preferences report based on an independent online survey of 2,127 US respondents. The insights from this diverse group provide a comprehensive look at what consumers expect from their digital healthcare engagement.

EXECUTIVE SUMMARY

A shift towards self-education and preventive care

Even among those with convenient access to healthcare, digital sources of information frequently serve as a point of reference. In fact, 61% of the insured American adults we surveyed seek health-related insights online. Similarly, 60% utilize at-home diagnostic technologies like blood pressure monitors to track their health. This trend indicates a willingness among consumers to proactively educate themselves about health matters and partake in preventive care, instead of delaying until a medical issue arises before seeking treatment.

Strong relationships and understanding drive loyalty to healthcare providers

Of course, this does not mean that medical professionals are about to be replaced by Google searches or ChatGPT anytime soon. Americans love their primary care providers (PCPs) so much that nearly six out of 10 (57%) qualify as 'promoters' of their PCPs based on their NPS rating, and only 15% are 'detractors.' Building relationships is essential if a provider is to keep their patients' loyalty and enjoy future recommendations. Case in point: 90% of promoters agree they have a relationship with their provider, compared to only 41% of detractors. Similarly, nearly all promoters (96%) say their provider understands them, compared to only 47% of detractors.

Digital is today

Consumer expectations for digital services have escalated across all industry sectors, including healthcare. When considering a new healthcare provider, a significant majority of consumers 'expect' or 'would like' to receive reminders online or via text (89%), have the ability to book appointments online (83%), and receive online support for their health conditions (81%). Healthcare providers lacking these digital services risk losing potential new consumers to providers who offer them. In fact, recent consumer research from PYMNTS reveals that nearly 80% of consumers desire a unified digital platform to manage their insurance benefits and healthcare information¹.

The next generation of healthcare

Millennials, also known as Generation Y, are expected to contribute to shaping the healthcare landscape in the future. They've shown a strong affinity for online healthcare, and recognize its benefits beyond just managing medical appointments. In fact, 52% believe online healthcare provides a more consistent quality of care, while 51% see it as providing more personalized care. For them, the speed and ease of accessing care are important, with 32% considering this as their primary criteria when choosing a healthcare plan, as opposed to 25% who view cost as the main criteria.

Seeking the personal touch in a digital world

Personalization, defined as one-to-one engagement guided by an individual's personal data, is highly sought after, but often not successfully implemented. Two-thirds (66%) of consumers would like to receive text or email reminders about their prescriptions or upcoming check-ups, but 51% currently don't get them. Similarly, 52% would like to receive personalized communication about potential treatments they may be eligible for, but only 32% get that today. Nearly half (47%) would like to receive personalized information on wellness based on broad age, gender, and ethnicity groups, but only 34% get it today.

Use data and use it well

Healthcare providers do not need to worry that consumers do not trust them with their data. Nearly nine out of 10 consumers (86%) are comfortable with providers using their demographic data to tailor and personalize their communications. Similarly, 75% are comfortable with healthcare providers using their genetic information for personalized communications.

At the same time, people do have some concerns about allowing healthcare providers to use their personal and health data. Cost is a concern, with 46% worrying that their data may be used to justify higher costs. This concern is highest among Millennials (67%).

Unsurprisingly given the high NPS scores that consumers assign to their primary care providers, consumers are twice as likely to trust them with their health data than their healthcare insurers (82% vs. 41%). The prime benefit consumers associated with allowing healthcare providers to use their data is getting a more accurate diagnosis (40%), closely followed by receiving care and treatment tailored to the individual consumer (36%).

¹ <https://www.pymnts.com/healthcare/2022/consumers-see-healthcare-super-app-as-cure-for-fragmented-experience/>

INTRODUCTION

Attitudes towards healthcare are changing. Consumers, healthcare providers, and even insurers are taking a much more proactive approach to health, seeking to identify conditions earlier than ever and taking steps to improve overall wellness. Across the mental and physical health spectrum, the focus is on improving outcomes and enhancing quality of life at an affordable cost.

Achieving these goals means developing personal relationships between all parties involved in delivering care. Healthcare providers and insurers are privy to more intimate information about people's day-to-day lives than any other sector.

The depth and breadth of data available to healthcare providers present an enormous opportunity to improve people's lives, even more so when bolstered by technology.

From personalized communications designed to support people at different life stages to continuous monitoring and treatment for chronic conditions, the potential within deep data and digital tools is significant.

But the healthcare sector treads a fine line. Using data and technology ethically and responsibly while managing risk and compliance to support consumer outcomes must be the priority for any organization.

To understand how consumers view their healthcare experiences and the trends on the horizon, Adobe surveyed over 2,000 insured Americans to learn how they want their data used to support their health and wellness.

In this report, we will explore how:

- Consumer experience is the primary driver of future growth
- Efficiency is a provider, payor, and patient priority
- Self-service is in demand, even for complex conditions
- Personalization extends beyond communication
- Trust will be at the heart of innovation.

THE DIGITAL DOCTOR WILL SEE YOU NOW

In the past, many Americans relied on their family doctor as the primary source of health advice. However, this dynamic has changed significantly. Today, thanks to technology like health apps, smartwatches, and medical websites, individuals are more proactive in managing their health and well-being.

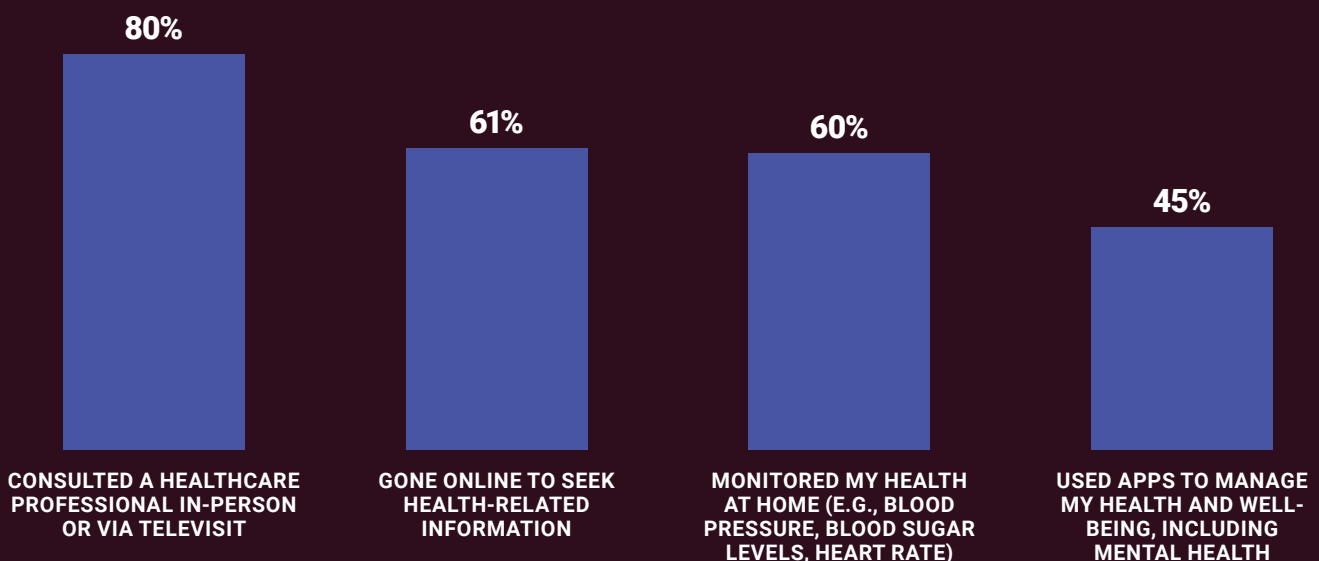
Doctor Google has undeniably become a major resource in self-diagnosis, with 61% of insured American adults turning to the internet for health-related information in the past year (see *Figure 1*). Despite having easy access to healthcare professionals thanks to their insurance coverage, these individuals still opt for self-guided exploration to gain deeper insight into their health conditions.

The rise of at-home monitoring and diagnostics supports this 'self-service' healthcare approach, with 60% of respondents stating they use technology such as blood pressure and heart rate monitors. The wide availability and increased affordability of monitoring technology and the convenience of managing health conditions away from the pressure of a healthcare setting facilitate this trend.

An at-home blood pressure monitor, for example, can be purchased for as little as \$20 – a welcome answer to the 'White Coat Syndrome,' the phenomenon where patients' blood pressure spikes to an unusual and unacceptably high level in the doctor's office, yet is within normal parameters when self-measured at home.

FIGURE 1

In the past 12 months, have you done any of the following?



SAMPLE SIZE = 2,127

Smartwatches with heart rate monitors, such as the Apple Watch, are a bigger investment costing several hundred dollars, but they offer a myriad of additional lifestyle functions. Physicians have noted that the accuracy of smartwatch monitoring can be variable; however, they also agree that they provide a broad overview of individuals' health and give insights into when professional intervention might be warranted².

And some consumers are taking even more hands-on, 'armchair expert' approaches to monitoring their health. Health science company, ZOE, launched a study of 1,000 US consumers in 2021 using technology usually reserved for diabetic patients³. The study gathered detailed data about individuals' blood sugar responses by applying a continuous glucose monitoring device. The study helped individuals learn which food types caused their blood sugar to spike and enabled them to tailor their diets.

While the objective of the ZOE study was to gather data for a broader research project about obesity, sugar, and weight loss, the project proved hugely

popular. When it launched in the UK in 2022, it was heavily over-subscribed, with a waiting list of more than 220,000 people as individuals sought answers to their weight-related problems⁴.

There are, of course, many less interventionist methods of health monitoring. For example, 45% of our survey respondents have used apps to manage their health and well-being, including their mental health, in the past year, and about a third (32%) report being regular users of wellness apps, including Calm or Headspace.

Connected health and well-being, characterized by the use of digital technology to facilitate personalized, proactive health management and care, is undoubtedly captivating consumer interest. Our survey shows four out of 10 consumers spend at least three hours per month managing their health and well-being online.

² <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9695982/>

³ <https://newsdirect.com/news/latest-study-led-by-zoe-reveals-why-some-of-us-are-hungry-all-the-time-129731511>

⁴ <https://www.thetimes.co.uk/article/inside-the-zoe-health-app-with-its-220k-waiting-list-k6dkj66sh>

“Our survey shows four out of 10 consumers spend at least three hours per month managing their health and well-being online.”

NURTURING PATIENT RELATIONSHIPS

The approach to attending to a consumer's health and wellness has become much more holistic, moving away from strictly a doctor-patient relationship towards multiple providers and influences. At the same time, as the trend towards more remote healthcare management grows, people are missing out on the one-to-one relationship they used to have with their family doctor. With so many other sources of information and treatment, if primary healthcare providers are to maintain their patient relationships, they will have to work harder – and smarter – to nurture those connections.

Primary healthcare providers are starting from a place of relative comfort, with 57% of respondents with health insurance qualifying as 'promoters' of their primary healthcare provider, giving them a Net Promoter Score (NPS) of nine or 10. But they can't afford to rest on their laurels. As any good marriage counselor will tell you, relationships need work; our survey results bear that out.

CASE STUDY:

Walgreens Boots Alliance (WBA)

Digitization has been a boon in many ways – speed, convenience – but there are concerns that the personal touch has been lost between practitioner and patient. Walgreens Boots Alliance (WBA) is attempting to set that right.

Despite the size of the business, WBA is still very much a 'local' pharmacy, with most US and UK consumers having a store within five miles of their homes. Using digitization, the company aims to bring the neighborhood pharmacy feel back.

WBA's marketing and IT teams work hand-in-hand to build customer experiences and create personalized interactions even in the most underserved communities. The company sends tailored recommendations to customers about to run out

of products, reminders about annual flu shots, and offers prescription drive-thru collection.

Same-day delivery through rapid fulfillment partners, 24/7 live chat, wellness recommendations, and more have all added up to put WBA at the forefront of the sector. Customer satisfaction is steadily rising, with myWalgreens app usage up 30% and overall digital traffic up 50% year on year. Contactable Walgreens customers doubled in 2021 to over 50 million, and Q1 earnings in that year showed a 155 basis point increase in sales, attributed to mass personalization.

SOURCE; ADOBE⁵

⁵ <https://business.adobe.com/customer-success-stories/walgreens-boots-alliance-case-study.html>

As illustrated in *Figure 2*, while 90% of those who are promoters of their primary care provider say their PCP 'strives to develop a relationship,' only 41% of detractors (those who rate their provider 1-6 on the NPS) have this experience. Similarly, 96% of promoters say their provider understands them and their healthcare needs, compared to only 47% of detractors. And, while 96% of promoters believe they are 'treated like an individual,' only 63% of detractors feel this way.

Digital is a vital tool in treating people like individuals, but at the scale required of large institutions serving millions of patients or members.

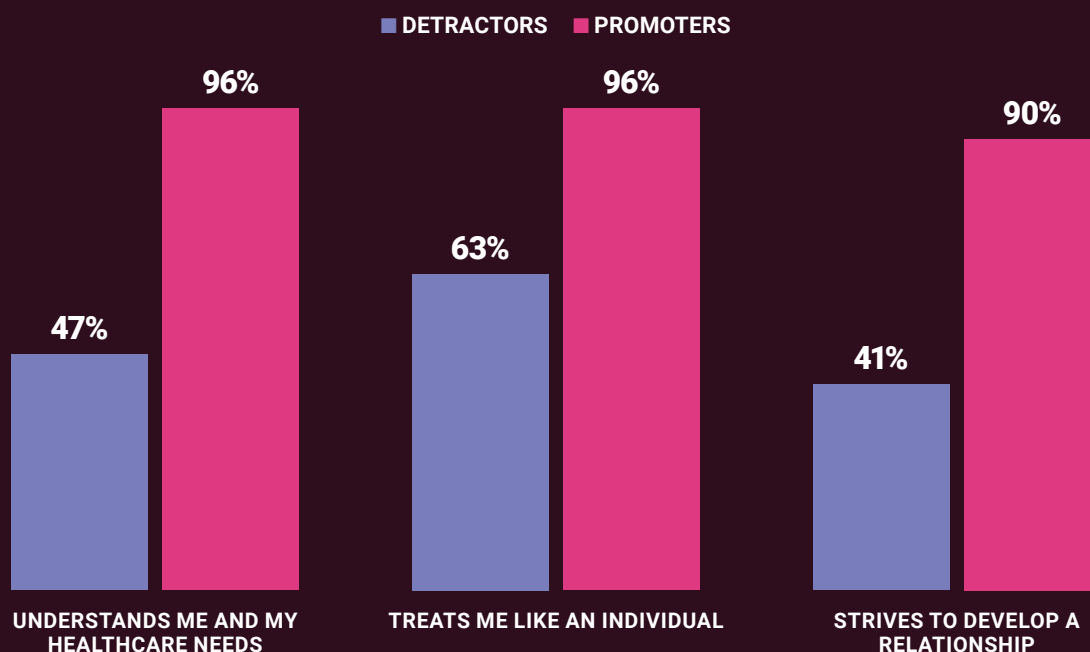
One large payor was looking to decrease member costs for otherwise high-cost procedures while improving the individuals' health outcomes⁶.

It had to identify those at-risk individuals who might potentially need procedures and provide them with tailored comparison-shopping resources based on quality outcomes and their unique health history. Using Adobe solutions, the health insurer was able to improve response rates and reach 40% of otherwise unknown users.

⁶ Adobe client case study data

FIGURE 2

Thinking about your primary healthcare provider, please select whether you agree or disagree with the following statements (% agree)



SAMPLE SIZE = 328 DETRACTORS AND 1,211 PROMOTERS

ALIVE AND CLICKING: PROMOTE DIGITAL ENGAGEMENT

We hear a lot in the broader marketing sphere about the ability of brands to ‘surprise and delight’ consumers, but less so in healthcare. Of course, we all want good healthcare outcomes, but it seems that sometimes the patient experience takes the back seat when the most important result is ‘am I well now, or not?’.

However, the US healthcare market is intensely competitive, and both patient wellness outcomes and the financial health of providers and payors are closely interlinked. Customer satisfaction – as in other sectors – is as strong an indicator of the potential health of the healthcare organization as it is of the patient.

In the world of Medicare, there has been a push to link insurers’ ratings to patient experience. Starting in 2024, 41% of payors’ five-star ratings will be based solely on member experience. This shift not only affects customer consideration but also impacts reimbursement amounts, making a strong rating crucial. To reverse declining healthcare ratings and improve the bottom line, insurers need to focus on improving digital engagement. By leveraging digital technologies and providing user-friendly platforms, insurers can enhance patient satisfaction and ultimately boost their ratings in the realm of patient experience.

With digital engagement now forming such a significant part of that interaction, how well healthcare organizations perform online is a significant contributor to their own fortunes as well as patients’ satisfaction. What’s more, digital engagement helps reduce the cost of healthcare for providers, payors, and patients – a win-win-win trifecta.

CASE STUDY:

Carelon

Carelon, a subsidiary of Elevance Health, has developed a platform to allow individuals to access personalized insights and proactively manage their health. It sees benefits not just for individuals – making healthcare more equitable, effective, and efficient – but for insurers and providers too. It gives healthcare providers data-driven insights that help ensure each individual receives the right care at the right time while improving the customer relationship and operational efficiency of health plans⁷.

⁷ <https://www.carelondigitalplatforms.com/>

Indeed, our survey results demonstrate this very effectively. More than three-quarters (78%) of respondents who indicate strong loyalty to their healthcare provider say their provider either ‘meets’ or ‘exceeds’ their online needs, compared to only 34% of detractors.

Considering the critical role that online services play in the performance of a healthcare organization, our survey delved into consumers’ digital expectations. It found that essential features, such as online booking and delivery of reminders through a preferred digital channel, are not just important, but indispensable.

In fact, 42% of respondents expect to be able to book appointments online (see *Figure 3*), while 44% want reminders either online or by text. And, even among patients who are not yet demanding this functionality, there is latent demand. A further 41% of respondents would like to be able to book appointments online, and it's a good guess that they aren't hoping for it at some vague point in the distant future.

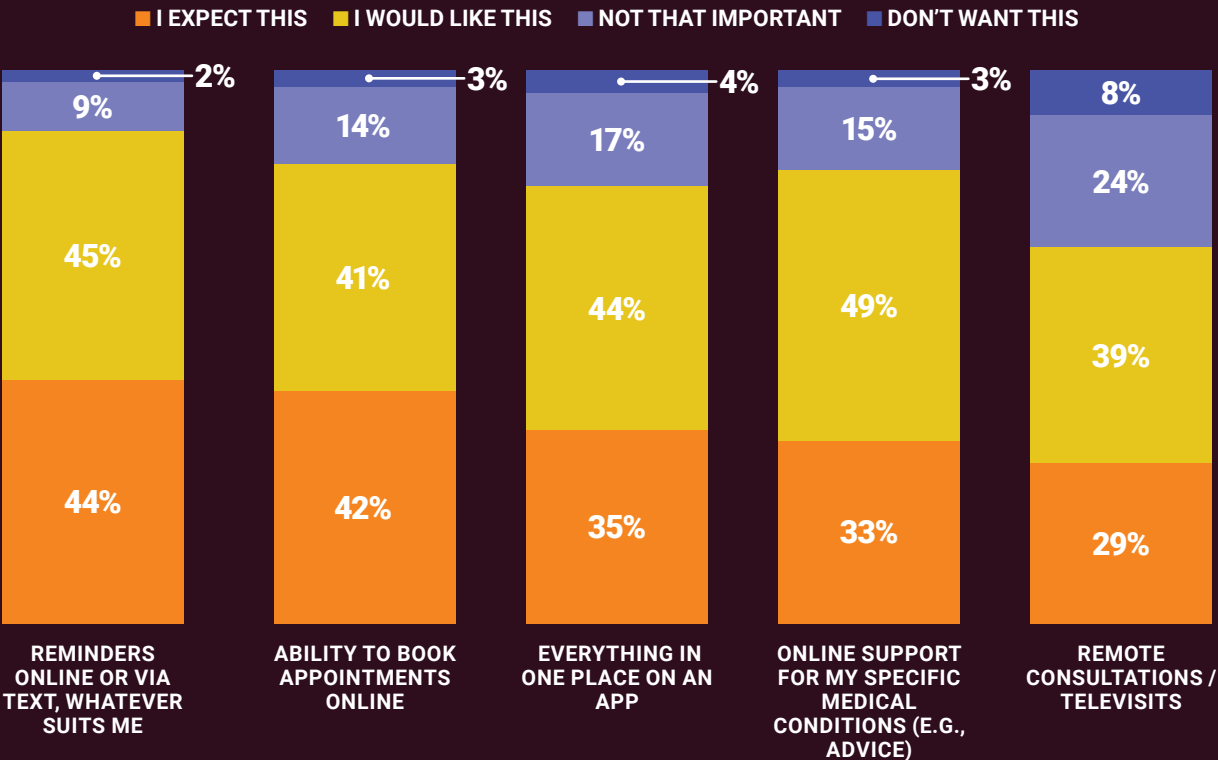
Providers that showcase they are a leader, not a laggard, in digital offerings and services, also help their brand perception as innovative, highly capable, and leading edge in terms of healthcare. However, even those organizations congratulating themselves that this is already in place must stay on their toes. Systems that were first-wave and innovative will soon be judged as basic, clunky, and difficult to navigate.

Consumer demands don't stop there. More than a third (35%) expect their healthcare provider to offer an app to manage everything in one place, and 33% expect online support for specific healthcare conditions. This would indicate that individuals are looking for a more sophisticated digital experience from their provider than simple web forms. This aligns with recent consumer research from PAYMNTS, revealing that almost 80% of consumers wish to utilize a unified digital platform to manage their insurance benefits and care information⁸.

⁸ <https://www.pymnts.com/healthcare/2022/consumers-see-healthcare-super-app-as-cure-for-fragmented-experience/>

FIGURE 3

If you were choosing a new healthcare provider, how important would it be that they are offered the following?



SAMPLE SIZE = 2,093

HEALTH IS A LIFESTYLE CHOICE

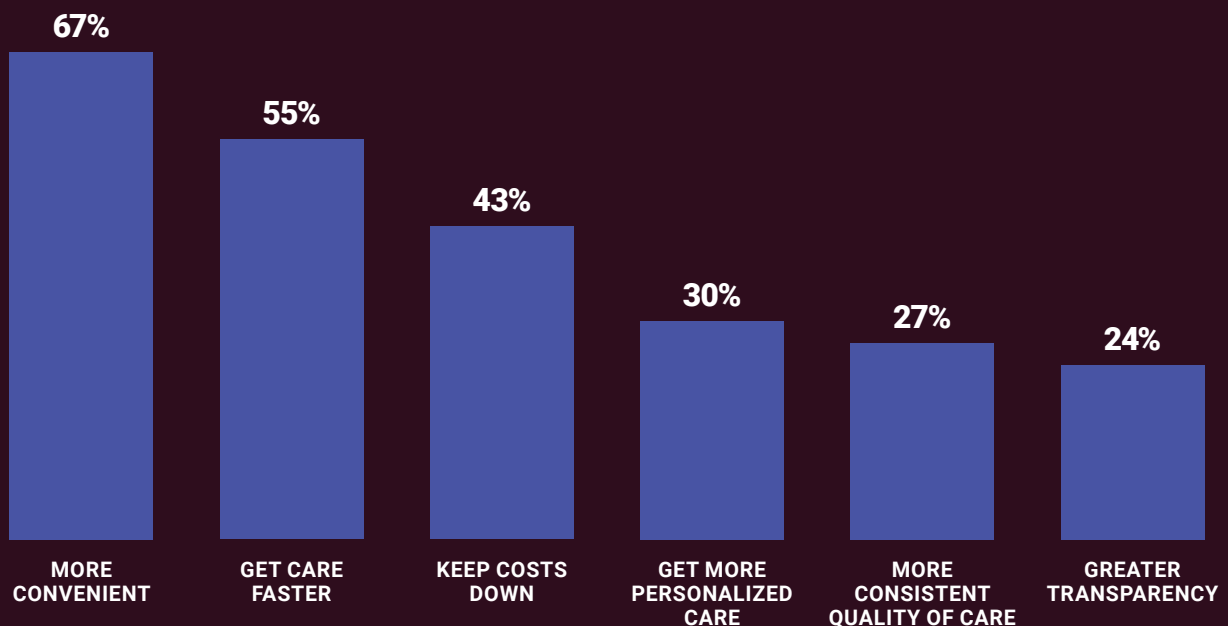
Above all, digital engagement means that people can fit their healthcare needs into their busy lives. Online healthcare support is, above all, convenient and fast. As illustrated in *Figure 4*, two-thirds of survey respondents (67%) agreed that convenience was the main benefit of accessing healthcare support online, while 55% saw it as simply a faster way of meeting their needs.

This is also a benefit for providers, helping them see more patients more efficiently. It also must be noted that digital engagement keeps provider costs down while allowing them to operate top-of-license.

“Two-thirds of survey respondents (67%) agreed that convenience was the main benefit of accessing healthcare support online.”

FIGURE 4

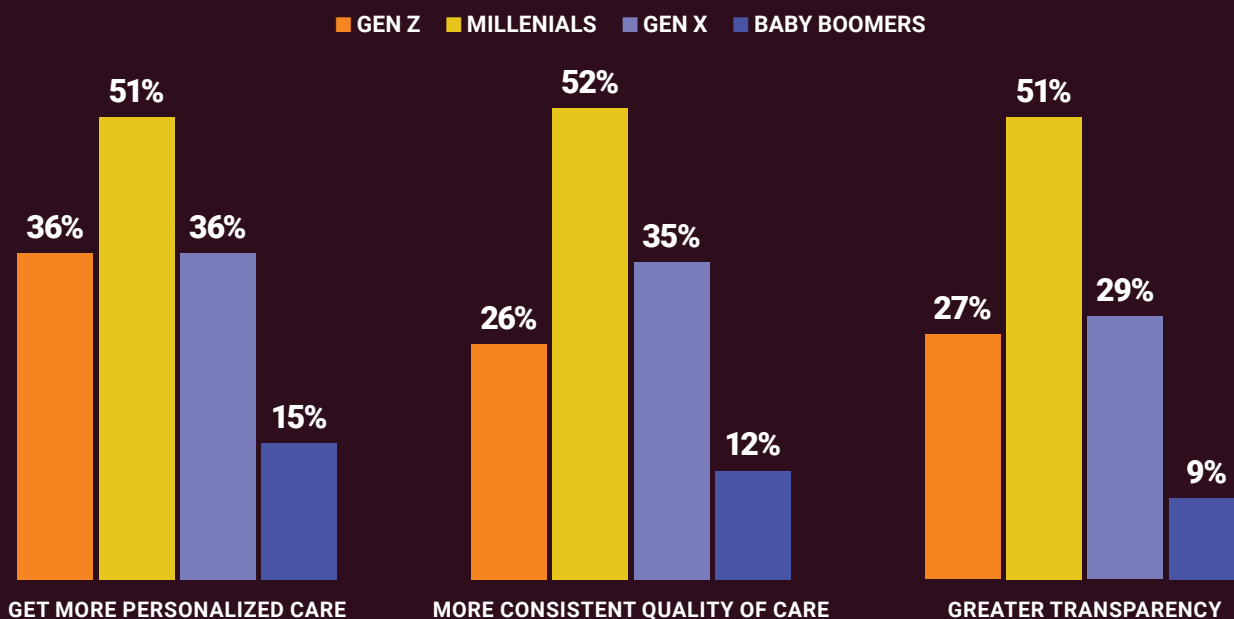
What do you see as the main benefits of being able to get access to healthcare support online?



SAMPLE SIZE = 2,127

FIGURE 5

Generational comparison of the perceived benefits of being able to get access to healthcare support online



SAMPLE SIZE = 2,127

However, it's the 26–40-year-old cohort – typically termed Millennials – who embrace online healthcare most passionately and grasp how digital adds value above and beyond the convenience of online bookings and reminders (see *Figure 5*).

While Gen Z (18–25-year-olds) may often feel invincible due to their youth, it is the Millennial generation that is experiencing a growing demand for healthcare. With many Millennials starting families, seeking preventative healthcare measures, or caring for aging parents, their medical needs are diverse and increasing. However, navigating their busy lives means they require healthcare solutions that are convenient and adaptable to their lifestyle, offering quick and efficient care.

So, above convenience and speed, 52% of Millennials believe online healthcare will give them a more consistent quality of care, and 51% believe online healthcare is going to be more personalized to them.

However, more than any age group, Millennials want answers fast. Our study reveals ease and speed of access to care dominate their choice of healthcare plan, with nearly a third (32%) ranking it top over cost, range of treatment, or access to a current doctor in-network.

Online support and advice are already a 'must have' for this group when they choose a new healthcare provider (55%), while for others, it's largely a 'nice to have.' Similarly, 49% of Millennials expect access to remote consultations and televisits, again, more than among older or younger cohorts.

Simply put, Millennials look set to drive digital engagement from payors and providers more than any other group. For example, according to an ERBI survey, they will most likely check the quality and ratings of doctors and hospitals (51%)⁹.

⁹ https://www.ebri.org/docs/default-source/ebri-press-release/pr-1205-conseng-22mar18.pdf?sfvrsn=7d3a342f_2

Our research further suggests:

- When needing to consult a doctor, Millennials are the most comfortable generation utilizing digital tools to guide them to the appropriate service, with 56% of Millennials engaging in this way compared to the overall average of 28%.
- Additionally, our study highlights that Millennials are more inclined to use technology for home health monitoring, at 64%, versus the overall average of 44%.

This cohort will influence how healthcare is delivered for at least four decades (until the oldest of the group reaches their mid-eighties and the youngest mid-sixties and thus age into Medicare), so the imperative to meet their needs has never been higher.

However, the narrative extends beyond a consumer segment with high demands. The push for digital engagement and self-monitoring is driving healthcare organizations to explore technologies that can revolutionize their operations.

Challenges such as reimbursement issues and professional burnout leave healthcare workers under-resourced and ill-prepared to deliver the best patient care^{10,11}.

Furthermore, digital transformation has paved the way for numerous newcomers to join the healthcare market. Primary care providers unable to meet consumer needs risk losing their patients and members to these digital disruptors.

By adopting digital solutions that cater to the unique needs of the Millennial generation, healthcare organizations can alleviate cost and labor pressures without sacrificing the quality of care. In addition, they can introduce innovations that foster loyalty and position them as leaders in the market.

¹⁰ <https://www.hhs.gov/about/news/2022/05/23/new-surgeon-general-advisory-sounds-alarm-on-health-worker-burnout-and-resignation.html>

¹¹ <https://www.aha.org/press-releases/2023-04-20-new-aha-report-finds-financial-challenges-mount-hospitals-health-systems-putting-access-care-risk>

CASE STUDY:

Self-monitoring even for complex healthcare

BioButton Rechargeable

This wearable device allows for continuous multi-parameter monitoring of a range of more than 20 vital signs and physiologic biometrics. This allows for the early identification and detection of adverse trends to improve patient monitoring in the hospital and at home. The device is medical-grade and can help patient management for those with chronic and complex care needs.

“The BioButton Rechargeable is the easy button for a healthcare workforce in crisis, realizing a new standard in remote care that is effortless for the patient and clinician while allowing providers to scale care without scaling costs.”

James Mault, MD, Founder and CEO of BioIntelliSense¹².

SOURCE: BIOINTELLISENSE, 2022



EMBRaCE – Enhanced Monitoring for Better Recovery and Cancer Experience

A collaboration between NHS trusts in the UK and The University of Manchester developed a trial in 2022 to use cutting-edge but commercially available health sensors and devices to produce a digital fingerprint of vital signs that could allow doctors to assess their patients' progress.

The devices include an Oura smart ring, a Withings ScanWatch, and a chest-worn Isansys system. EMBRaCE is partnered with the health and biomedical data science company Zenzium Ltd to harness the power of Artificial Intelligence (AI) to analyze and identify critical patterns within patient data.

“This trial will assess if the latest wearable technology has a role in cancer care. It will help us to identify ways that clinical staff can individualize treatment before, during, and after therapy. We will find out if 24/7 data from these wearable sensors can be used to support patient recovery and provide accurate measurement outside clinic.”

Dr Michael Merchant, Senior Lecturer in Proton Therapy Physics, at The University of Manchester¹³.

SOURCE, THE UNIVERSITY OF MANCHESTER, 2022

¹² <https://www.globenewswire.com/en/news-release/2022/03/15/2403793/0/en/UPDATE-BioIntelliSense-Launches-New-BioButton-Rechargeable-Wearable-Device-for-Continuous-Medical-Grade-Monitoring-of-20-Vital-Signs-and-Biometrics.html>
¹³ <https://www.manchester.ac.uk/discover/news/trial-of-wearable-health-technology-for-cancer-patients-opens/>

THE PERSONALIZATION GAP

While there are encouraging advances in self-driven healthcare and personalized treatment plans, day-to-day healthcare management seems to fall down on some of even the most basic requirements.

Two-thirds (66%) of our survey respondents now want to receive a reminder from their healthcare providers to re-order medication or book a health check-up as standard, and while around half (51%) do get this, that leaves a large gap between those that want it, but don't get it (Figure 6).

“Two-thirds (66%) of our survey respondents now want to receive a reminder from their healthcare providers to re-order medication or book a health check-up”

FIGURE 6

Consumer preferences vs. current reality in HC providers' use of personalized data

■ CONSUMER PREFERENCES FOR WHAT TO RECEIVE FROM THEIR HC PROVIDERS
■ HOW PRIMARY HC PROVIDERS USE THEIR DATA TODAY



SAMPLE SIZE = 2,127

The desire/delivery gap is even more significant when it comes to personalized communication about treatments that might benefit them, with 52% of respondents wanting them but only 32% getting this today. A further 47% said they'd like personalized information on wellness based on their demographics, like gender and ethnicity, but only 34% currently have access to this.

All these may seem like basic consumer requests, but there are still challenges for healthcare organizations trying to provide them – most notably around data protection. One US-based retail pharmacy wanted to help its customers on their path to better health by giving them a personalized, connected, and seamless experience at every interaction. However, privacy regulations combined with a proliferation of digital channels made this goal more and more complicated.

By employing Adobe's Real-Time Customer Data Platform (RTCDP), the company could view its customers' comprehensive, multichannel health and wellness journeys while respecting customer privacy and adhering to regulations. This enabled access to insights to keep communications targeted, relevant, and effective. The result was one-to-one customer experiences across every channel – retail store, pharmacy, and website¹⁴.

This sort of personalization is proven to deepen customer engagement. One healthcare payor saw increased email and text opens by 40% via personalizing content driven by digital data collection. A national insurer defined its target audiences and delivered emails based on segmentation. The result was a 33% increase in opens of personalized emails.

¹⁴ Adobe client case study data

“The desire/delivery gap is even more significant when it comes to personalized communication about treatments that might benefit them, with 52% of respondents wanting them but only 32% getting this today.”

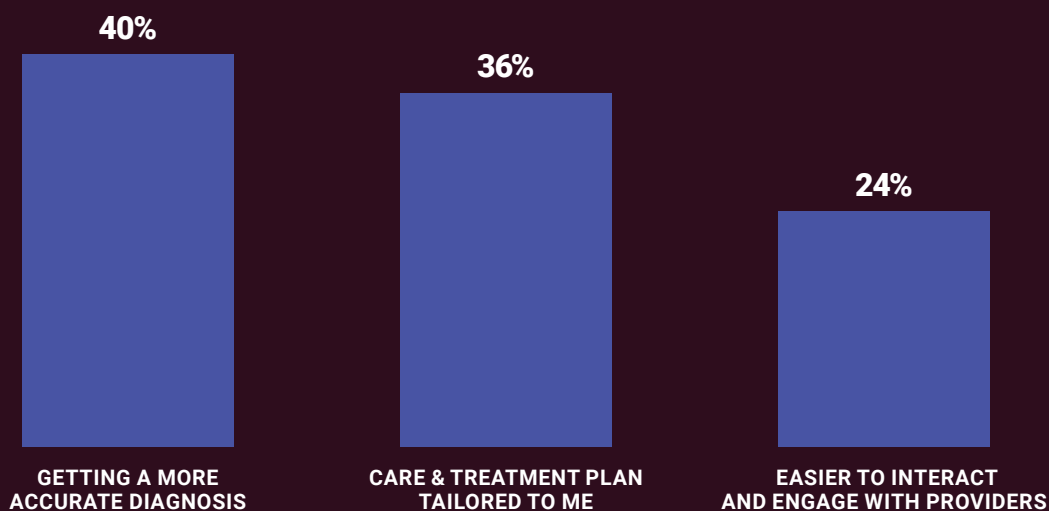
BETTER CARE EQUALS DEEPER TRUST

Earlier in the report, we said that automated reminders and appointment bookings via digital channels are now table stakes. At the same time, we recommended that providers and insurers look further afield for digital experiences that will deepen consumer relationships. Of course, in the eyes of the consumer, use of that data is contingent on providing better digital healthcare – an understandably sensitive issue.

Encouragingly, as illustrated in *Figure 7*, most respondents understand that, handled correctly, their data holds the key to a better quality of care. Three-quarters (76%) ranked 'care' factors (getting a more accurate diagnosis (40%) or care & treatment plan tailored to me (36%)) as the Number 1 benefit of allowing healthcare providers to use their data to assist in care and treatment.

FIGURE 7

Provided your data is used securely and with your permission, what do you see as the benefits to you of allowing healthcare providers to use your data to assist in care and treatment? (Rank 1)



SAMPLE SIZE = 2,023

By contrast, only 24% cited ease of interaction and engagement with their providers as the Number 1 benefit. It should be noted that the condition for granting access to this data was that it would be used securely and only with the consumer's permission.

Looking to the future, patients may need to learn to accept even wider sharing of data if they are to benefit from scientific understanding about their condition and future risk. It is increasingly recognized that non-medical information can bring the most influence to bear in understanding how healthcare issues unfold.

According to EY, 80% of the data that determines patient health comes from outside the medical record, meaning healthcare providers and possibly insurers must find a way to understand their customer's identities and situations better¹⁵.

One route, says the firm, is digital patient twin technology that fuses wide-ranging data sources – such as wearable sensors and air pollution records. The result can forecast individuals' health and help health systems provide better care¹⁶. For example:

- EY notes that two-thirds of the US's 27 million emergency room visits would have been avoidable and could have been treated in primary care settings.
- Understanding what influences a person to manage or neglect their health needs can save distress for the patient and money for the provider and insurer. Patients with diabetes who don't manage it properly often have secondary complications such as heart attacks or kidney failure.

Analytics from a process such as digital twinning could significantly impact quality of life and healthcare provision. With this level of care – far more than getting a timely reminder to collect a prescription – the value of sharing their data with their healthcare provider and insurer becomes crystal clear to the individual.

15 https://www.ey.com/en_fi/life-sciences/how-you-can-create-value-in-an-intelligent-health-ecosystem

16 https://www.ey.com/en_ch/health/are-digital-twins-key-to-more-personal-equitable-and-efficient-care

“Analytics from a process such as digital twinning could significantly impact quality of life and healthcare provision.”

THE DATA EXCHANGE

Many healthcare organizations have claimed consumer mistrust is holding them back from providing the sort of holistic and preventative healthcare experiences consumers clearly demand. Their risk aversion may well be misplaced. Our survey found that respondents are now comfortable with all kinds of personal and medical data being used to tailor communications, from demographic data (86%) to genetic information (75%) (Figure 8).

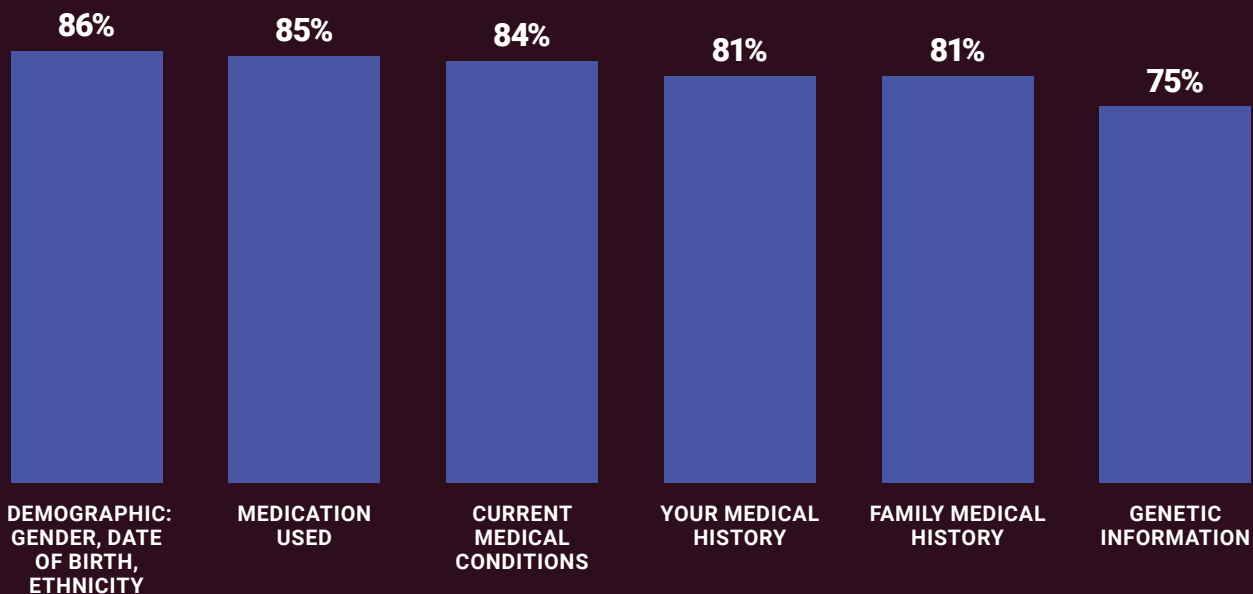
It must also be acknowledged that healthcare is a business after all, and 46% of survey respondents worried that their data would be used to justify

higher costs, rising to 67% for more data-savvy 26–40-year-olds. Reassurance and transparency of provider and payor intent in all areas is vital.

Primary care providers are at an advantage here. With the longest-standing relationships with their end users and being on the front line of care, patients perceive they have more to offer the individual in exchange for their data.

FIGURE 8

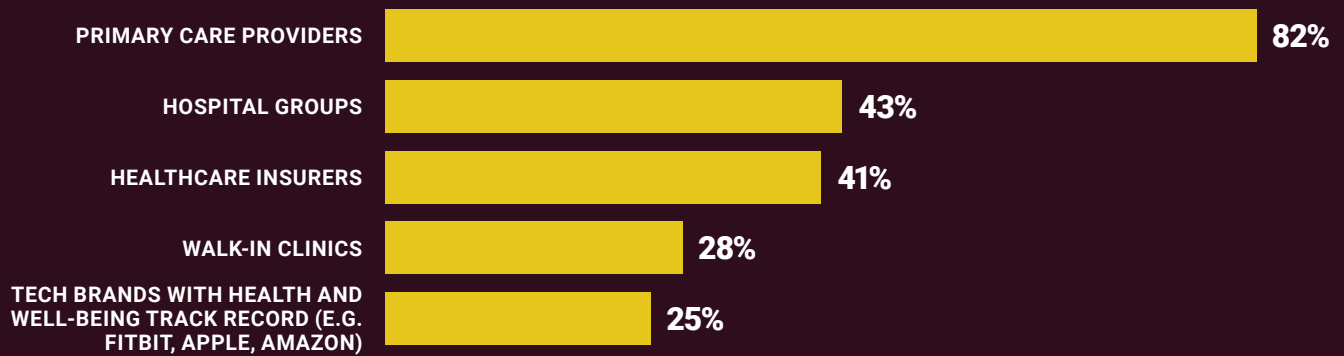
Healthcare providers gather and hold a range of personal and health data about us. How comfortable are you for healthcare companies to use this information to tailor and personalize their communications with you? (% comfortable)



SAMPLE SIZE = 2,032

FIGURE 9

Which of the following types of providers would you trust to use your health data to give you personalized information and messages tailored to you?



SAMPLE SIZE = 2,127

To benefit from better communications and receive tailored advice, 82% of respondents were willing to trust primary care providers to use their data. This falls to 41% for insurers (see *Figure 9*).

Technology brands with a health and well-being

track record, such as Fitbit and Apple, receive the lowest trust score, possibly due to their relative novelty in the market and publicized security breaches. Still, while only 25% trust them overall, the rate more than doubles when looking purely at the Millennial cohort (54%, not shown in *Figure 9*).

CASE STUDY:

Trust equals effectiveness and satisfaction

Insurers who work to improve consumer trust reap the rewards. Elevance Health has invested significantly in data-driven personalization. The company's digital customer engagement tool allows for more timely interventions and improves patient outcomes. In the two pilot markets where this data was used, the engagement rate increased by 15.3%. By simplifying the authorization process through increased electronic medical record (EMR) access, consumers have faster access to care, and the

administrative burden on providers is reduced. In comparing facilities with EMR access against those without, Elevance Health found that those with EMR access saw requests for clinical information fall 60%, denials through lack of information down 56%, specialist to specialist review down 73%, appeals down 79%, and turnaround time down 21%¹⁷.

SOURCE: ELEVANCE HEALTH

¹⁷ <https://advancinghealth.elevancehealth.com/collaborating/simplifying-sharing-admin-data.html>

THE FUTURE IS NOW

With the vast amount of information potentially at consumers' fingertips, their impatience to gain a window into their own, personal world of health is understandable. They don't just want to know about the here and now but look to the future to preserve good health into a ripe old age and meet any challenges head-on before they become problematic.

The appetite is clearly there, with 55% of respondents wanting to see an analysis of their data to identify potential issues and recommend preventative screening. This is a demand for today, not tomorrow. Online tools such as those for tracking diabetes or blood pressure and subsequently making recommendations for better managing the individuals' conditions are also in demand right now by more than half (52%) of respondents.

While the digital health sector is burgeoning with apps not yet FDA-approved, this represents an evolving landscape ripe for innovation. These apps are continuously improving, promising more reliable insights in the future. The surge in 'health-conscious individuals' can be viewed as a stimulus for the industry to strive for excellence. Rather than straining healthcare professionals, it could push digital healthcare to better assist the system. As consumers use these apps wisely, developers are encouraged to enhance safety measures, turning potential risks into opportunities for growth.

“Online tools such as those for tracking diabetes or blood pressure and subsequently making recommendations for better managing the individuals' conditions are in demand right now by more than half (52%) of respondents.”

Digital transformation in healthcare does not aim to replace qualified providers but to enhance engagement and build stronger relationships. Despite the rising demand for digital solutions, only 35% of respondents felt comfortable discussing health concerns with an interactive virtual assistant, as illustrated in *Figure 10*.

A notable exception is Millennials, with 63% open to interacting with virtual assistants. Interestingly, they show more acceptance than Gen Z (38%), a detail not in the figure.

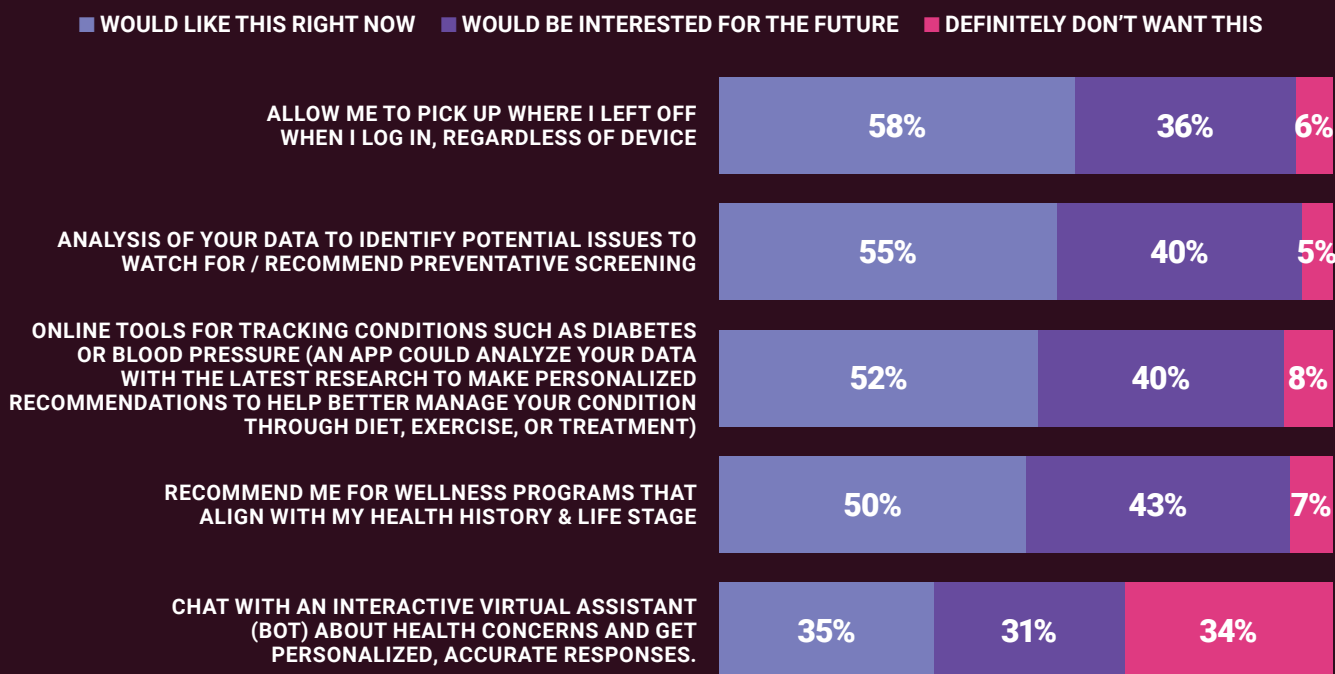
The digital engagement era presents a golden

opportunity for healthcare providers and payors to deepen consumer relationships. Digital technologies and data have immense potential to enrich individuals' understanding of their health and well-being as well as what they can do about it, enabling them to stay healthier for longer.

While the healthcare industry may feel threatened by digital-first competitors, established players have significant advantages, including infrastructure, expertise, and trust. However, patients are signaling their impatience. The need to meet evolving consumer expectations is pressing, as consumers won't wait indefinitely.

FIGURE 10

Which of the following do you think could be of value to you or your family, either now or in the future?



SAMPLE SIZE = 1,970

CONCLUSION

Digital innovation is rapidly transforming the healthcare sector, and consumers, especially Millennials, are eager to engage. However, the essential element for the sector's growth will be trust. Digital opportunities abound for non-healthcare providers to offer health services, but not all meet the necessary standards or demonstrate foresight. While consumers are empowered to manage their wellness in detail, they run the risk of false security or becoming overly concerned about their health.

Advanced providers and insurers can significantly benefit by developing a robust digital healthcare strategy. Utilizing leading-edge digital tools, they can provide reliable healthcare methods with confirmed beneficial outcomes, and improve consumer experience. Additionally, digital adoption can substantially reduce costs through streamlined service delivery and increased operational efficiencies.

Despite these advantages, advanced providers must avoid complacency. The healthcare industry is intensely competitive, and providers with only basic digital services may see their patient base shrink. As digital transformation enables more sophisticated services, less advanced providers may also face escalating operational costs.

The future of healthcare is digitization, balanced with a human touch. Although advanced providers currently have an advantage in trust and effectiveness, maintaining this position will require continuous innovation to stay competitive in the rapidly evolving healthcare landscape.

METHODOLOGY

The 2023 Adobe Data-Driven Healthcare Experiences: A New Era of Personalization and Preferences report was developed from an independent online survey involving 2,127 qualified US respondents, all of whom had health insurance. The age range of the respondents was 18 to 75 years, and each had a household income of \$50,000 or more. The survey was launched on March 1, 2023 and concluded on March 8, 2023.

Adobe's secure, [future-ready solutions](#) help turn consumer data into insights, ensuring a competitive edge in the ever-changing healthcare landscape.



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