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Consumer-Centric Healthcare: 2025 Update

20th Anniversary Edition

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Introduction

In January 2005, we published the first of our continuing series of reports on the evolving role of the consumer in the U.S. healthcare market. The report, titled The Power of Choice: On the Brink of a Consumer Revolution in Health Care, provided our expectations for the most significant developments in the healthcare marketplace over the coming years.

Today, two decades after publishing our inaugural report, our thesis remains largely intact and continues to unfold rapidly. We believe that a consumer-centric ecosystem is now an integral part of the U.S. healthcare market, and the recent investments and strategic actions by myriad industry leaders—both inside and outside the traditional healthcare landscape—appear to support our view. In this ecosystem, we believe that consumers, in tandem with disruptive healthcare technology and services providers, remain the key to solving many of healthcare's woes, particularly the unsustainably high cost and mixed quality of healthcare in the United States.

Our 2025 report also comes at an interesting time for the sector, as retail innovators have exited the space in mass, a remarkable turnaround after a significant wave of investments only a year earlier. For example:

- In April 2024, Walmart announced that it would close all 51 Walmart Health locations and shutter its virtual care services—this after touting plans to open 22 new locations *just one month earlier.*

- Walgreens announced its intention to close 15% of its entire U.S. store base in October 2024, indicating that nearly 1,200 stores would be shuttered. The company also announced plans to close nearly 160 VillageMD clinics, while also seeking a partner to purchase some or all of its stake in the advanced primary care operator.

- While CVS continues to expand its Oak Street Health operations, struggles with its core insurance business (Aetna) have pressured the company's profit profile and led management to seek a private equity partner to help fuel Oak Street's future expansion.

- Even healthcare bellwether Optum Health has changed its operating focus, shutting down its virtual health operation in 2024, only three years after founding the unit following the height of the COVID-19 pandemic.

It appears that only Amazon, which acquired One Medical in February 2023, has continued apace with its healthcare aspirations—first announcing discounted One Medical memberships for Prime members and then opening 15 new One Medical centers in the year after closing the acquisition. More recently, the company also announced plans to integrate its telehealth marketplace with One Medical and its intention to launch a hybrid primary care organization with Cleveland Clinic. In mid-November, the company also announced a new direct-to-consumer (DTC) model to provide telehealth visits and treatment plans for a small monthly fee in areas such as men's hair loss, anti-aging skincare, eyelash growth, erectile dysfunction (ED), and motion sickness.

What Caused This Mass Exodus in the Space?
Here, we believe it was a confluence of industry developments that caused a massive amount of pressure on profit margins for many of these organizations' legacy operations.

Thus, *even though many of the new healthcare delivery assets were growing as expected, initial start-up losses were no longer tolerable for these companies,* especially as publicly traded entities with cratering stock prices and significant pressure from shareholders. This sentiment was perhaps

best captured by VillageMD's chief physician executive, Dr. David Hatfield, at a panel presentation at the HLTH conference in October 2024. He stated: "We're doing those things. We see the outcomes changing, we see the cost curve bending. Walgreens just didn't want to give us enough time."

In our view, there were several issues that negatively impacted the broader sector in 2024, which caused many leading organizations to focus on cost-cutting efforts and their core operations versus their more recent consumer-centric investments:

- Higher healthcare utilization rates and novel risk adjustment changes created material pressures on Medicare Advantage (MA) plans. For example, ***CVS Health's*** Aetna insurance arm (the third-largest payer in the country) reported a roughly 40% drop in operating income midway through 2024. In tandem with the announcement, the company replaced Aetna's president and announced a $2 billion cost-cutting plan.

- In October 2024, the company announced another disappointing quarter and withdrew its annual guidance given continued MA challenges and increased share loss to online competitors. This prompted the resignation of CEO Karen Lynch and pushed shares to a 10-year low. When the company reported full third-quarter results, management indicated that *Aetna could generate a negative operating margin in 2024 after generating $5.5 billion in operating profits in the prior year.*

- Thus, despite successfully expanding its Oak Street Health operations (e.g., sales rose 36% organically in third quarter 2024, on 32% at-risk membership growth) and seeing strong synergies with the insurance segment (e.g., the number of Aetna members enrolled at Oak Street has quadrupled since the deal close and these members are experiencing lower cost trends), CVS decided to seek a partner to help support Oak Street's growth. More specific, we believe the company is looking to establish an off-balance-sheet arrangement to help shield the company from start-up losses associated with new center expansions. However, *we again emphasize that the asset is actually performing quite well*, with the company's new CEO, David Joyner, even stating on the most recent earnings call: "The fact is the (Oak Street) model works, and it works in underserved markets specifically for the population that's important to this business."

- ***Walgreens*** stock also tumbled throughout 2024, reaching levels it has not seen since 1996. Profits plummeted during the year as gross margins continued to fall amid reimbursement changes, retail shrinkage, and online competition. This prompted a massive acceleration in the company's store optimization plans and led to the decision to close many of the VillageMD operations located in subscale markets.

- While ***Walmart*** bucked the trend of other retailers, reporting record profits and seeing its stock jump to an all-time high near the end of 2024, it still decided to jettison its healthcare operations because of an inability to profitably run the primary care clinics, given staffing shortages (i.e., many physicians simply did not want to work at Walmart) and low fee-for-service reimbursements for primary care.

- ***OptumHealth*** decided that it no longer needed to directly run telehealth operations, given a huge uptick in competitive offerings that it could simply partner with for its operations (similar to how it contracts for other health services for members). Moreover, the return to in-person visits across many specialties led to it being less of a strategically imperative asset for the organization.

So, while the headline is a mass exodus of retailers from the healthcare marketplace, ***we believe these decisions were spurred less by fundamental changes in the care delivery assets and more by overarching pressures to rapidly improve profits at the parent entity.***

What Does This Mean for Consumer-Centric Healthcare?

Despite the well-publicized noise in the space throughout 2024, we believe a focus on consumer-centered healthcare is as crucial to an organization's long-term success as ever.

We turn to another quote we view as insightful, this time from McKinsey & Company's annual healthcare outlook report (Consumers rule: Driving healthcare growth with a consumer-led strategy):

> As healthcare organizations look to the future, they cannot overlook the need to place the consumer at the center of all they do. Only by improving care outcomes and consumer experience will they deliver financial returns and remain competitive while meeting consumers' holistic health and wellness needs.
>
> Consumers are more motivated than ever to choose healthcare options that offer a better experience, higher quality of care, and greater value. As the shift to consumerism continues, organizations that embrace it most successfully will emerge as leaders of the healthcare ecosystem.
>
> – McKinsey & Company.

We could not agree more with this viewpoint, and we continue to believe that capturing consumer loyalty, engaging today's consumer in comprehensive health and wellness activities, and providing a digital-first healthcare experience are prerequisites for success.

At the start of the funnel, we believe a digital solution is critical for consumer-centric care. For example, data from OptumHealth indicates that "eighty percent of people prefer to enter the health system digitally—whether through a website, a portal, an email, a chat or some combination." We believe the experience should be no different than booking a flight or making a dinner reservation, yet myriad organizations have yet to make even this simple step a reality, presenting a huge long-term opportunity to improve the consumer experience (or a long-term risk of losing customer loyalty to others that embrace this trend).

To this end, we highlight another comment from OptumHealth's 2024 Annual Trends Report, which states, "Consumers have demonstrated they will abandon organizations that cannot offer digital access, empower their decision-making and provide the quality care they need. A simplified experience can build patient loyalty, improve outcomes, and help strengthen an organization's financial position." We agree that this will be a requisite offering for today's consumers in the healthcare delivery marketplace.

Even amid the huge challenges in the managed care space, UnitedHealth CEO Andrew Witty, on the company's October 15 earnings call, specifically called out the need for a consumer-centric focus to drive the firm's long-term performance, stating:

> Something we talked about over the last two years extensively is consumerization. You should expect us to continue to challenge and push on how we can constantly modernize the consumer experience that we're able to offer. Technology as a facilitator of that, but also philosophy as a facilitator of that, right?

> The organization is changing. It's biased to being much more consumerist in the way things operate. We want to continue to bring that to life. So those five growth pillars, the opportunities, the technology of the 2020's gives us, and then a shift in emphasis from the company towards a more consumerist experience, those are really the guide points.

Again, during the company's early-December investor day, Witty reiterated this point, stating, "The future of the U.S. healthcare system requires that simplification, that consumerization."

And the company's 2024 investor conference book, published in tandem with the event, began with the following, which we view as further endorsement (from the country's largest payer) of the move toward consumer-centric care:

> **Welcome.**
> Now, more than ever, consumers are demanding more from their health care. More simplicity, transparency and innovation. Higher quality. Lower costs. Better value for their money.
>
> Health care professionals, employers, governments and taxpayers want all of those things, too.
>
> The people of UnitedHealth Group are determined to deliver on these expectations and help make value-based care possible for tens of millions of Americans within the next decade.

Aetna seems to be following a similar approach, launching a new insurance plan called SimplePay Health that focuses on a consumer-centric experience. The plan is app-driven, and when members use the app to schedule an appointment, providers are split into green, yellow, and red categories to easily display their price and quality. In early testing, employers using the plan saw their workers use the highest-quality providers 60% to 80% of the time, versus only 20% previously.

Similarly, in announcing its new consumer-centric offering in 2024, Elevance Health stated, "Healthcare, like a lot of industries, has become more flexible and personal because people have come to expect an exceptional experience. We all have increasingly busy schedules, and we all want the freedom to interact on our own terms and receive services in ways that are simple and convenient. As an industry, we need to set up healthcare services so they aren't that different from experiences people have accessing other services, such as shopping or ordering groceries."

Given these dynamics at the three largest commercial payers in the United States, we continue to believe that consumer-centric healthcare providers, and the companies that provide the technology and/or services to enable more consumer empowerment, will experience the strongest growth over the next several years. Conversely, entities that do not embrace this change likely will find their business models disrupted and, in our view, experience a decline in sales, market share, and customer loyalty in the near future.

We conclude our introduction with a final quote that emphasizes the need to invest in consumer-centric healthcare—this one from Transcarent CEO Glen Tullman's keynote speech at the recent Fierce Health Payer Summit: "The incentive is survival … consumers, ultimately, are going to win the battle. They won in every other space."

Given this viewpoint, we believe that investors in both the public and private equity markets will achieve superior long-term returns by identifying and investing in these companies—many of which are novel operators that are redefining care delivery (virtual care, advanced practice models, patient navigation and advocacy, onsite and near-site health clinics, technology-enabled home health, etc.), while others are entering the healthcare sector from other verticals.

The purpose of this report—now the 20th year in our annual series on the topic—is thus to assist investors in this process. To do so, we present an updated overview of the emerging consumer-centric healthcare marketplace. In particular, we focus on recent developments surrounding the five key elements that we continue to believe will drive greater growth of consumer-centric healthcare over the coming years:

1. a continued need for healthcare cost control in the United States, which remains pressing given a recent uptick in healthcare expenditure growth rates;

2. increased quality and pricing transparency for healthcare products and services;

3. growing responsibility for healthcare utilization and quality at both the consumer and provider levels;

4. increasing employer, insurer, and consumer support for more consumer-centric healthcare solutions; and

5. greater use of healthcare information technology solutions among providers and consumers.

Following this analysis, we provide investors with an overview of key investment merits and risks to monitor over the coming years; we then conclude our report with our updated list of some of the leading consumer-centric healthcare operators in both the public and private markets, which we believe are well positioned for growth over the coming years.

Factor One: The High Cost of Healthcare in the United States

Before discussing consumer-centric healthcare drivers in more detail, we begin our analysis with an update on what we view as one of the most important issues in healthcare today, *its significant cost.* In our opinion, this discussion is crucial, as exorbitant healthcare costs and the structural inefficiencies that drive them continue to serve as perhaps the most important impetus for change in the U.S. healthcare marketplace.

Multiyear Uptick in Healthcare Costs

We have begun our annual CDHC reports with a discussion of the cost of healthcare in the United States for two decades now; however, we continue to find novel data points that are startling, despite our experience analyzing the issue over the decades.

For example, a December 4 Bloomberg News report ("Health-Care Spending Is Sinking the Federal Budget") contained a number of data points highlighting just how troubling the cost of healthcare is in the United States. For example, the author notes that:

> After huge but temporary increases during the pandemic, federal spending on items other than health programs was actually lower as a share of GDP in the 2023 fiscal year (the OMB's detailed breakdowns of 2024 spending won't be out until early next year) than the 1962-2023 average. **If federal health spending**

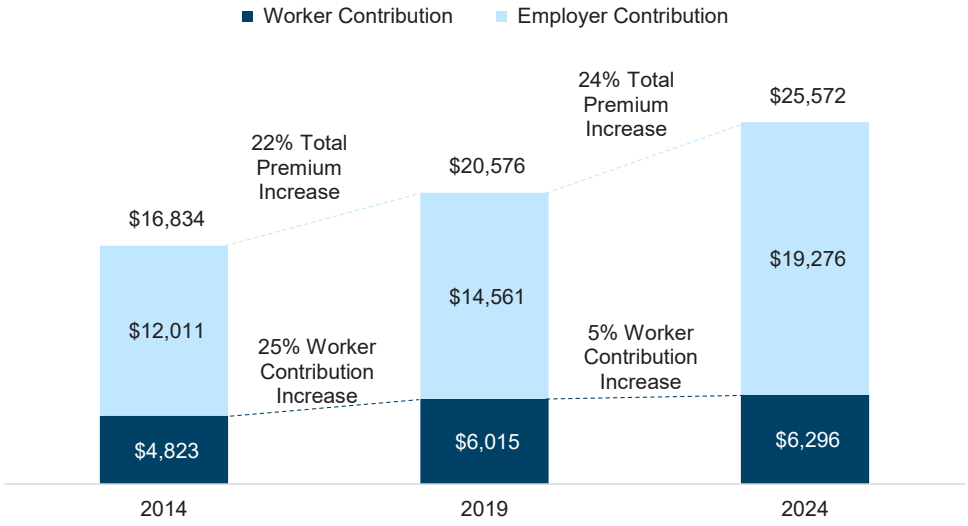
> **accounted for the same share of GDP that it did in 1973, the budget would be balanced. If it were the same as in 2000, the deficit would be 2.5% of GDP, less than both the 1946-2023 and 1962-2023 averages.** [emphasis added]

The report then highlights, "In 2023 federal health spending was almost twice its 1962-2023 average, three times what it was in 1980, and 18 times what it was in 1962. The federal government now spends more than twice as much on health as on defense; as recently as 1988 it was less than half."

To first put some more detailed numbers behind the issue, we turn to what we view as the most comprehensive annual survey analyzing current healthcare spending trends. The Kaiser Family Foundation's annual *Employer Health Benefits Survey,* which, for the 26th consecutive year, surveyed nearly 2,150 human resources and benefits managers at U.S. employers (of all sizes) about their health insurance coverage and spending levels for both individuals and families.

According to the report, average 2024 premiums increased to $8,951 for single coverage and $25,572 for family coverage, which are both at all-time highs (exhibit 1). This unrelenting increase in average annual premiums for families was the same for organizations of all sizes and for all types of insurance products.

Exhibit 1
Consumer-Centric Healthcare
Average Annual Worker and Employer Premium Contributions for Family Coverage



Source: KFF.org; William Blair Equity Research

The survey also noted that these premiums rose by roughly 7% in 2024; this marked a material uptick in costs over the past two years (2023 premiums were up 7% as well), after a period in which trends were markedly lower, at only 2% (for single premiums) and 1% (family premiums) in 2022.

Moreover, we believe this trend is part of a what will prove to be a multiyear uptick in healthcare costs, as acute-care providers pass along higher expenses to insurers, which, inevitably, result in higher premiums for employers and their workforce over time. We believe increased demand for behavioral healthcare, increased prevalence of high-cost specialty medications (especially in oncology), the emergence of GLP-1 drugs for weight loss (which will drive up near-term costs but

not result in immediate healthcare savings), and greater use of care to meet pent-up demand post COVID-19 will push premiums higher—especially as payers look to increase rates to offset the marked uptick in healthcare utilization they experienced throughout most of 2024.

To this end, we briefly highlight several recent data points that emphasize this point:

- A recent report published by the National Alliance of Healthcare Purchaser Coalitions found that cost trends remain a key issue for employers, with the percentage of respondents indicating that healthcare costs impact their competitiveness increasing consistently over the past few years. More specific, in 2022, only 35% of respondents indicated that healthcare costs impacted their competitiveness, but this increased to 48% in the 2024 survey. Moreover, the recent uptick in costs is requiring employers to rethink overall budgets, with 74% indicating that rising healthcare costs require a trade-off with salary or wage increases and ***85% indicating higher healthcare costs will require further cost-shifting to employees.***

- Similarly, a recent report published by global insurance services firm WTW (*WTW's 2024 Best Practices in Healthcare Survey)* noted that healthcare cost trends continue to outpace inflation, making cost control a top priority for employers; WTW predicts that ***U.S. employers expect their healthcare costs to rise 7.7% in 2025—***an uptick from 6.9% in 2024 and 6.5% in 2023. The report also notes that most employers are seeing current-year healthcare costs trending above budgeted levels.

- A recent survey from Business Group on Health (an executive summary can be found here: 2025 Employer Health Care Strategy Survey) indicated that ***healthcare costs are projected to increase at the highest rate in more than a decade in 2025.*** More specific, 2025 cost trend is expected to hit 8% for health and wellness benefits, indicating that healthcare costs since 2017 are up more than 50%.

- A recent research report published by PwC's Health Research Institute (*Medical cost trend: Behind the numbers 2025)* also found that healthcare cost trends continue to outpace inflation, making cost control a top priority for employers. PwC predicts that ***medical cost trend will increase 8.0% for group coverage and 7.5% for individual coverage in 2025,*** up 50 basis points—for each category—from 2024 levels. This is the highest level of cost trend in 13 years and represents a marked uptick from the midsingle-digit cost trend experienced between 2016 and 2021.

  Regarding specific drivers of increasing costs, GLP-1 drugs were cited as a major concern, along with rising healthcare provider prices and an uptick in behavioral health utilization and pricing. On provider pricing, the report noted, "As providers look to combat inflationary struggles and further improve margins, they are turning to contract negotiations with health plans, primarily private insurance contracts, to offset rising costs. Given constraints under required budget neutrality, rate increases on government-sponsored insurance remain well below cost trends."

  Put simply, given largely fixed government reimbursement rates, we believe hospitals are pushing more costs onto private insurers (and thus employers) than ever before. The report also noted that 70% of health plans identified inflationary impacts on provider pricing as one of the top-two factors driving increased medical costs trend expectations for 2025.

- A recent survey conducted by Mercer (*The CFO Perspective on Health)* revealed that healthcare costs are a top concern for employers, as ***67% of respondents indicated that health benefit costs are either a significant or very significant concern.***

Slightly more than half of CFO respondents said they would need to see their healthcare cost trend at or below CPI to be sustainable over the next three to five years. Over the past two decades, Mercer indicates that health benefit costs have typically increased 1% to 2% *above* the Consumer Price Index (CPI); thus, even simply maintaining that historical performance trend would be unsustainable for many employers.

CFOs also report less visibility into healthcare costs than other expenses; more than 70% of respondents indicated that healthcare is less predictable than other expenses. Moreover, over 40% of respondents expect greater claims volatility in 2024 than in past years.

- Lastly, we highlight the most recent survey from the National Federation of Independent Business (NFIB), which indicates that the cost of health insurance is the No. 1 issue facing small-business owners—dominating other issues like taxes, finding qualified staff, and items such as political and economic uncertainty.

This trend is also expected to have a long tail, with a 2024 CMS report projecting that from 2023 to 2032, the average annual growth in national health expenditures of 5.6% (up 20 basis points from the prior-year projection) will outpace average annual growth in gross domestic product (GDP), at 4.3%. This will result in an increase in the healthcare spending share of GDP from 17.3% in 2022 to 19.7% in 2032.

Medicare Spending Expected to Double Over Next Decade

According to a recent MedPAC annual report to Congress, CMS actuaries estimate that Medicare spending will grow at even greater rates, at nearly 7.5%, between now and 2030, at which point all baby boomers will have reached Medicare's age of eligibility. More specific, Medicare spending is expected to double in the next decade alone (from $918 billion in 2022 to $1.9 trillion by 2032), which will increase Medicare spending as a percentage of GDP from only 1% in 1975 to nearly 5% by 2030.

Moreover, the report notes that a material decline in workers per Medicare beneficiary over the next decade will place the Medicare Trust Fund at risk, driving the need to either: 1) increase the current 2.9% payroll tax to 3.6% going forward or 2) decrease Part A spending by 15.6% between 2023 and 2047.

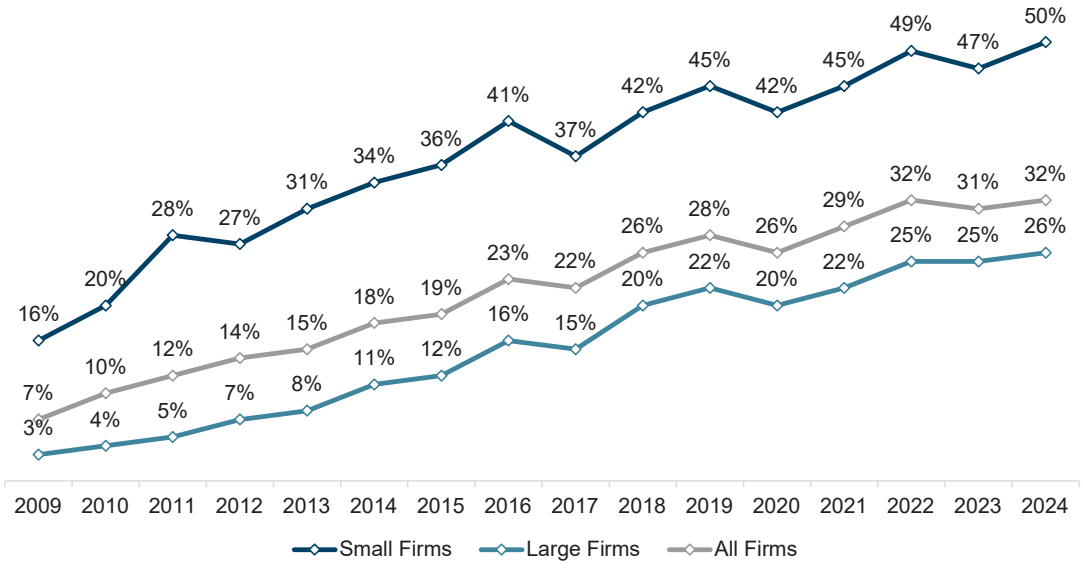
Turning back to the KFF survey, employees with individual plans contributed $1,368 toward their premiums (on average), while employees with family plans contributed $6,296 toward their premiums (on average), and employees at smaller firms faced even higher costs, with family coverage closer to $7,950 per year.

According to the data, the cost of average family premiums has increased by nearly 50% since 2013, markedly higher than both wages and general inflation over the same time frame. The survey further indicates that the ***average annual deductible in 2024 was $1,787,*** with smaller firms pushing much higher deductibles onto workers, at $2,575 for smaller employers versus $1,538 at larger employers—notably all of these metrics hit all-time highs in 2024. Moreover, the overall deductible increased 47% over the past decade, largely as a result of increased prevalence of high-deductible health plans over the past 10 years, in our view.

To this point, data indicates that in the past five years alone, the percentage of covered workers with a general annual deductible of $2,000 or more, for single coverage, has grown to 32%—another metric hitting record levels. And the impact for employers at smaller firms is even greater, with 50% employees at these firms facing a deductible of $2,000 or more in 2024 (exhibit below).

As discussed later in this report, we believe this significant percentage of consumers with high deductible plans is also shifting the healthcare industry toward a more consumer-oriented market, as an ever-increasing percentage of healthcare spending is being borne directly by the consumer.

Exhibit 2
Consumer-Centric Healthcare
Percentage of Covered Workers Enrolled in Plan With Annual Deductible of $2,000 or More



Source: KFF, William Blair Equity Research

20% of All Americans Have Medical Debt

Moreover, we believe this means that even those with insurance may have difficulty paying for care, as such a large portion must come from out-of-pocket funding before actual insurance coverage kicks in.

For example, a Zelis healthcare affordability survey indicates that although 92% of respondents had health insurance, only 45% indicated that they had sufficient savings to pay for unexpected healthcare without placing financial strain on themselves or their family. Moreover, 68% of consumers indicated that they planned to delay healthcare due to being unable to pay for it.

Similarly, a Commonwealth Fund survey (*The State of Health Insurance Coverage in the U.S.: Findings from the Commonwealth Fund 2024 Biennial Health Insurance Survey*) found that 23% of all Americans are underinsured, with 57% of these individuals indicating that they skipped care because of cost and 44% of them currently in debt for medical expenses. The study also found that of the underinsured people who owe medical debt, about half owe at least $2,000 while 20% owe $5,000 or more. Also, 51% of those with debt said it was linked to care for a long-term medical condition, with hospital care accounting for 49% of this debt. Lastly, individuals who skipped care due to costs are seeing worse outcomes—with 41% of those who skipped or delayed needed services seeing their medical conditions worsen.

An October report from PhRMA found that nearly half of all insured Americans find their out-of-pocket costs too expensive or more than they can afford. The report noted that 43% of respondents that face difficulty affording healthcare indicated it is due to their deductible being too high,

with 20% indicating they cannot afford copays and another 16% indicating that coinsurance is too expensive. The report also highlighted that nearly 20% of all Americans currently have medical debt, with hospital bills (59%), doctor bills (54%), and diagnostic tests (43%) driving the largest expenses owed to providers. Overall, this led only 28% of respondents to indicate that insurance actually provides affordable access to care when it is needed.

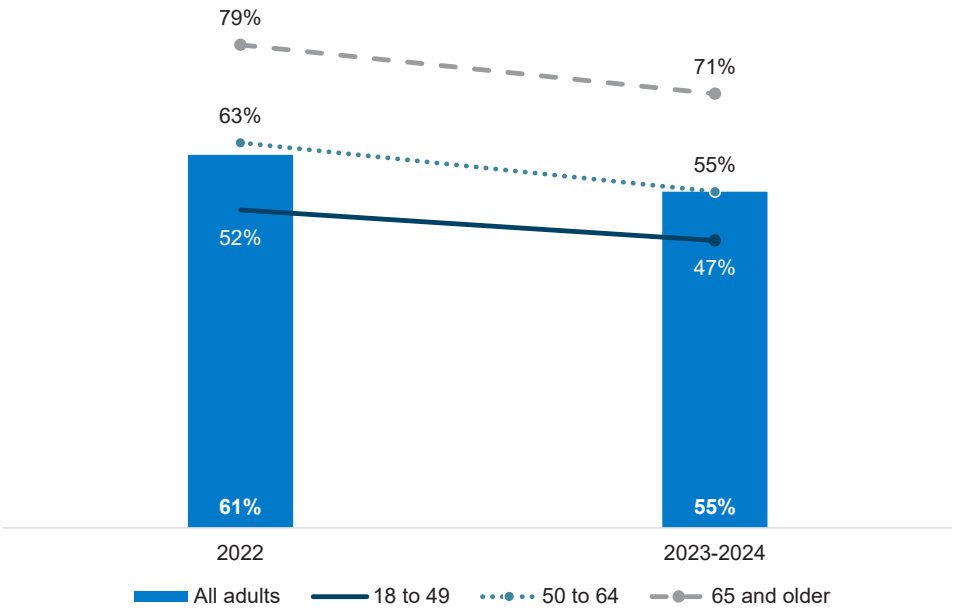
A survey by Harmony Health IT found that nearly three in four Americans (72%) are worried about the cost of healthcare-related expenses heading into 2025, and that 57% feel financial stress whenever they go to the doctor. This survey also reported that 32% of patients plan to skip doctor visits in 2025 to save money (with dental, eye, and general visits the most likely targets), while 44% are postponing elective procedures due to costs. The report noted that 32% of all respondents skipped medications due to costs, 35% used less medication than recommended to save money, and 30% indicated that their health issues worsened after skipping care to save money.

Recent surveys highlight a high level of anxiety among adults aged 50 and older as it relates to healthcare costs. For example, a new University of Michigan National Poll on Healthy Aging found that more than half of all surveyed adults (n=3,300) were "very concerned" about the cost of healthcare. In fact, 5 of the top 10 issues concerning respondents were related to healthcare, including items such as the cost of insurance and Medicare (52%) and the cost of dental care (45%).

Based on a survey of 1,000 U.S. consumers commissioned by Weave and conducted by Dynata in early 2024, it appears that younger generations are also feeling this strain. More specific, 37% of Gen Z and 34% of millennial respondents delayed going to a primary care physician in 2023 due to costs, while specialty healthcare providers saw an even higher level of delayed care, with 55% of Gen Z and 44% of millennials delaying needs such as dental visits in 2023.

Similarly, a recent West Health-Gallup poll indicated that the level of all adults that feel "cost secure" as it relates to healthcare costs dropped to the lowest level ever in 2023-2024, with a decline in cost security across every age cohort surveyed (exhibit below). Overall, affordability fell six points since 2022 alone, down to a record low of 55%.

Exhibit 3
Consumer-Centric Healthcare
West Health-Gallup Affordability Index



Source: West Health-Gallup; Newsweek; William Blair Equity Research

U.S. Lags Most Developed Nations in Healthcare Outcomes, Despite Spending More

Equally troubling, the health outcomes achieved in the United States are not commensurate with this level of spending, which is another issue we have discussed in several of our prior reports. According to several reports from KFF, health expenditures per person in the United States were $12,555 in 2022 (most recent comparable data), which was more than $4,000 greater than any other high-income nation. The average amount spent on health per person in comparable countries (of $6,651) is about half of what the U.S. spends per person.

This gap has increased markedly over the past five decades. For example, in 1970, the U.S. spent 6.2% of its GDP on health, similar to spending levels of about 5% in other comparable countries. Since then, however, health spending as a share of the economy has grown faster in the U.S. than in peer nations, now accounting for nearly 16% of U.S. GDP versus only about 11% for most other developed nations.

Despite this higher spending, health outcomes continue to lag other countries and appear to be near crisis levels in the aftermath of the COVID-19 pandemic. For example, the United Health Foundation, in partnership with the American Public Health Association, issued its America's Health Rankings annual report and concluded that:

- Eight chronic conditions reached their highest level since America's Health Rankings began tracking them: arthritis, depression, diabetes, asthma, cancer, cardiovascular diseases, chronic obstructive pulmonary disease (COPD), and chronic kidney disease (CKD).

- 29.3 million adults, or 11.2% of the population, had three or more chronic conditions.

- The number of primary care providers decreased 13% between 2022 and 2023, a decline of over 107,000 providers.

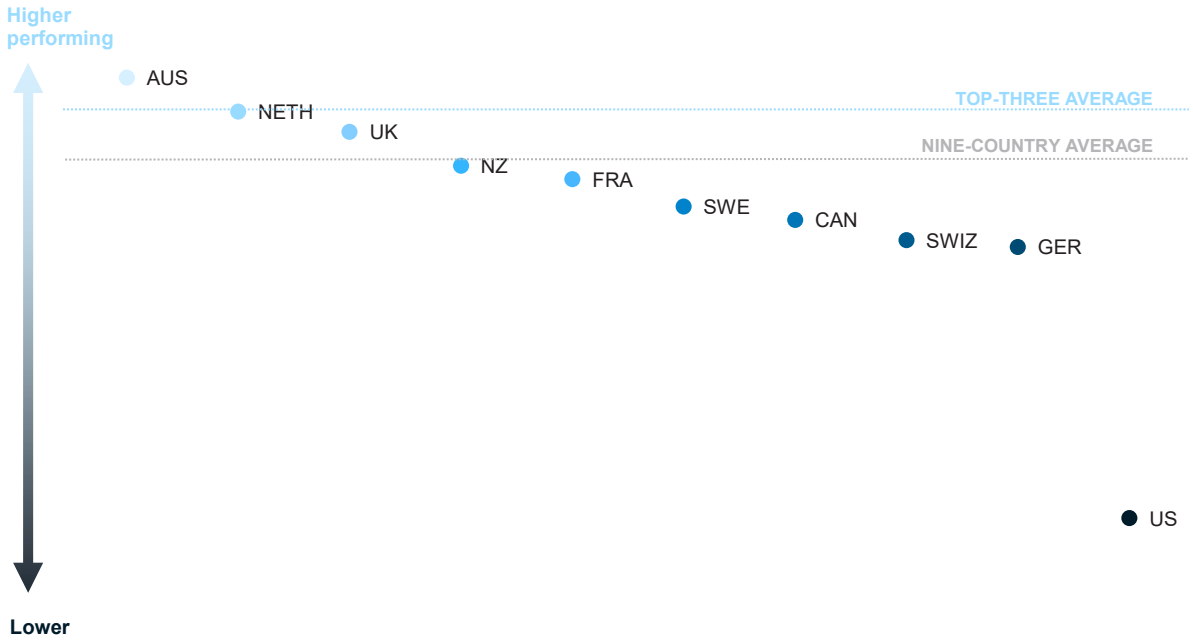
- The premature death rate increased 9% between 2020 and 2021, marking the highest value recorded by America's Health Rankings, as a result of high drug deaths and mental health struggles.

Recent data from the Institute for Health Metrics and Evaluation's Global Burden of Disease study showed that the average portion of an American's "life spent in good health" declined to 83.6% in 2021 (most recent data), down from 85.8% in 1990. The report noted that while medical advances are detecting and treating diseases that in the past may have caused mortality, conditions such as obesity, diabetes, and substance-use disorders have all increased significantly over time. Therefore, the gap between life expectancy (lifespan) and health-adjusted life expectancy (or health span) rose to an all-time high in the most recent reporting period.

U.S. healthcare outcomes also are markedly worse than most developed nations, despite spending more, per capita, than any nation in the world on healthcare. As seen in a September 2024 report from The Commonwealth Fund, the United States spends more than double on healthcare cost per capita relative to the average spending of other industrialized nations, yet it has the lowest life expectancy for its citizens. As the report's conclusion states, "The U.S. continues to be in a class by itself in the underperformance of its health care sector. While the other nine countries differ in the details of their systems and in their performance on domains, unlike the U.S., they all have found a way to meet their residents' most basic health care needs, including universal coverage."

The report also notes that the United States ranks dead last or second to last in the six categories it measured, including access to care (last), administrative efficiency (second to last), health equity (second to last), and health outcomes (last)—thus leading to the lowest overall ranking among all comparable countries (exhibit below).

Exhibit 4
Consumer-Centric Healthcare
Health System Performance by Country



Source: Commonwealth Fund; William Blair Equity Research

This becomes even more stark when comparing the performance of each country relative to the percentage of their GDP spent on healthcare (as seen in the exhibit below).

Exhibit 5
Consumer-Centric Healthcare
Healthcare System Performance Compared to Spending

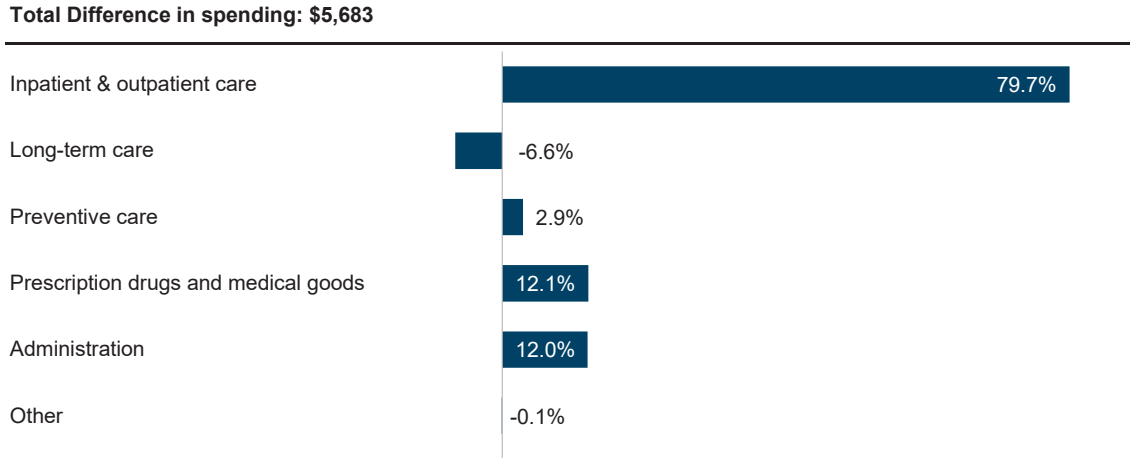
Source: Commonwealth Fund; William Blair Equity Research

A similar report from KFF noted the following:

> Though spending is higher in the U.S., there is little evidence that this gap is driven by higher utilization or higher quality of care. In addition to having generally worse health outcomes than peer countries, people in the U.S. are less likely to see a doctor, have a long hospital stay, and be able to make a prompt appointment for medical care. The U.S. also has fewer physicians per capita than other countries, making access to care more difficult in some areas.

Moreover, while the cost of prescription drugs in the United States (especially relative to other countries with price controls) is often viewed as a key culprit driving this gap, the same report notes that spending levels on inpatient and outpatient care are, by far, the largest drivers of the spending delta, as shown in the exhibit below.

Exhibit 6
Consumer-Centric Healthcare
Distribution of Difference in Per Capita Health Spending Between U.S. and Comparable Countries, 2021



Source: KFF; William Blair Equity Research

Put simply, in tracking the cost and quality data of the U.S. healthcare system over the past year for this report, the evidence was overwhelming (and depressing), but the message is clear: ***there is a dire need for change in the U.S. healthcare market, as the value provided is clearly misaligned with dollars spent on care.***

The Bottom Line

We believe the ability to better coordinate patient care, provide more preventive care delivery, more rapidly distribute clinical best practices, and more actively engage patients in the healthcare system has reached a tipping point, especially as more advanced primary care practices (APCs) expand and move into value-based reimbursement models.

The recent emergence of virtual care delivery, remote patient monitoring, and telehealth, along with the aggressive entry of novel innovators into the healthcare market, has the potential to re-shape how, and where, care is delivered in the United States. *Put simply, we believe the future of consumer-centric healthcare*, *which we define as lower-cost, more-convenient, and higher-quality care for individuals*, *looks bright.*

Equally important, we believe this change could be a sustainable solution to our healthcare system's woes, as a more engaged healthcare consumer would likely seek both *less medical care and medical care for less*. We believe these engaged consumers would likely seek more efficient care delivery and ultimately realize that their own behavior is often what drives their need for healthcare. In turn, the consumer might be a key driver of both less healthcare consumption and lower unit costs (via shifting the point of care to virtual care, advanced care models and onsite/near-site clinics, and retail locations, for example), which would unquestionably benefit the entire delivery system.

Healthcare costs remain the root cause of many of the ills facing the U.S. healthcare market today, and we believe that only through increased consumer-centricity and more focus on value-based care delivery (and plan designs) can a sustainable bending of the healthcare cost curve occur.

Factor Two: Increased Availability of Healthcare Price and Quality Information

To control escalating costs with more consumer-centric healthcare, we believe that increased access to healthcare pricing and quality information is needed. Without this, it is not possible for consumers to take a more proactive role in assessing treatment options, determining the quality of physicians, and choosing appropriate healthcare service providers and points of care—key factors in a more consumer-centric market, in our opinion.

In the section that follows, we provide an overview of some of the recent developments on the cost and quality transparency front (most notably the ongoing implementation of CMS's rules on pricing and quality transparency for payers and providers, which we believe could be a tipping point in the broader transparency movement), while also highlighting a number of remaining hurdles.

Costs of Care Vary Widely, a Key Driver of the Need for Transparency

In our view, a significant issue with the existing U.S. healthcare system is that patients are often unaware of the actual cost and quality of treatment until well after the services are rendered. Even more, 95% of Americans say health providers "should tell them how much their care will cost beforehand," but only 17% say providers actually do so, according to a survey from Bentley University and Gallup.

While there is an inherent unpredictability that underlies healthcare consumption (i.e., it is impossible to predict cost ahead of diagnosing an ailment, and it is not realistic to expect consumers to become experts in medical billing), it is often difficult for consumers to find price estimates and quality data for *even the most basic services ahead of time.*

As we have discussed in the last few editions of our CDHC report, CMS instituted a new rule on price transparency on January 1, 2021, to accelerate the movement to greater price transparency. This rule requires healthcare providers to disclose price data for roughly 300 specific services that CMS determined to be "shoppable."

However, the penalties under the initial rule for not complying ($300 dollars per day) were not enough of a deterrent, in our view, and many health systems simply did not comply in the early days of this policy. As an example, PatientRightsAdvocate.org published a review of hospital compliance with the rule in July 2021. This report found ***that 95% of hospitals were noncompliant with the requirements under this new CMS provision.***

This, in our view, illustrated the difficult problem facing patients looking to garner more information on their healthcare services and the conflicting incentives between stakeholders in the system. At the beginning of 2022, however, CMS meaningfully increased the penalty to $2 million per day for hospitals that do not comply with the prior price transparency rule.

CMS has since followed up with additional rules, beginning in 2023, that require payers to publicly disclose machine-readable files with price data on covered items, based on in-network negotiated rates and historical out-of-network allowed amounts. As of January 1, 2023, payers are now required to make available online tools with cost-share estimates for 500 shoppable healthcare services. And ***as of January 1, 2024, payers are now required to have such cost-share estimates available for all services.***

In the early days of CMS's price transparency initiatives, much of the focus has been on driving compliance with the guidelines. By reviewing CMS's enforcement efforts, from 2021 through 2023 for example, CMS had initiated 1,287 enforcement actions, with the majority (about 67%) of those

coming in the final year. Interestingly, the most-cited issues on the deficiencies related to missing data (43% of actions), no machine-readable file (34%), and noncompliance related to shoppable services or price estimator requirements (33%).

These actions led to more than $4 million in civil monetary penalties issued to 14 hospitals that failed to address their shortcomings, according to the CMS report, with only one additional monetary penalty for $871,000.

In 2023, CMS also updated its enforcement process to push hospitals more aggressively toward compliance with the price transparency rule. This includes a change in policy to automatically impose CMPs (fines) on hospitals that fail to submit a CAP within the standard 45-day window; this compares to the current policy where CMPs are not issued automatically, even with a 90-day window after an action plan is requested by CMS. We expect lawmakers and regulators to continue to push the industry toward compliance with price transparency solutions for consumers.

While the paragraphs above provide a summary of how price transparency in the industry has evolved, we believe the below exhibit offers a clearer timeline, showing hospital price transparency, transparency in coverage, and the No Surprises Act.

Exhibit 7
Consumer-Centric Healthcare
Timeline for Each Rule and Law

Hospital Price Transparency Final Rule	Transparency In Coverage	No Surprises Act
First Financial Penalty With Increased Fines **6/7/2022**	First Financial Penalty With Increased Fines **6/7/2022**	First Financial Penalty With Increased Fines **6/7/2022**
First Financial Penalty With Increased Fines **6/7/2022**		First Financial Penalty With Increased Fines **6/7/2022**
	Phase 1 - Machine Readable Files Rolled Out **7/1/2022**	
		Surprise Billing Final Rules - Updated IDR Process **8/19/2022**
		Request For Information Focused On EOBs and GFEs **9/16/2022 - 11/15/2022**
		Grace period for co-providers and facilities on GFEs extended **12/2/2022**
	Phase 2, Part 1 - 500 CPTs Available On Self Service Tool **1/1/2023**	
CMS Announced It Sent 500 Warnings to Noncompliant Hospitals **2/14/2023**		IDR Determinations Temporary Halted/Later Resumed **2/10/2023 - 3/17/2023**
CMS Releases OPPS Proposed Rule **7/13/2023**		
		Judge Rules Certain Components of QPA Calculation Are Invalid **8/24/2023**
	CMS Announced Deferred Enforcement For Prescription Drugs MRF is Ending **9/22/2023**	CMS Releases Proposed Rule With New $150 IDR Admin Fee **9/22/2023**
		CMS Released Proposes Rule Working To Simplify IDR Process **10/27/2023**
2024 OPPS Rule Finalized With Standard Schema in Effect 7/1/2024 **11/2/2023**		
Good Faith Effort, .txt root folder updates due for MRFs **1/1/2024**	Phase 2, Part 2 - All Items and Services Available on Self Service **1/1/2024**	
WE ARE HERE		

Source: Turquoise Health; William Blair Equity Research

Public Policy and the Regulatory Environment Pushing for Greater Price Transparency

All this said, we believe CMS has made clear progress on this initiative. In January 2024, CMS added new procedures to the utilization data on the Medicare.gov compare tool's profile pages for doctors and clinicians; the agency also added the first procedure volume data file with information for 12 procedures publicly reported: hip replacement, knee replacement, spinal fusion, cataract surgery, colonoscopy, hernia repair – groin, hernia repair (minimally invasive), mastectomy, coronary artery bypass graft (CABG), pacemaker insertion or repair, coronary angioplasty and stenting, and prostate resection.

Even more, in CMS's July 2024 release, the agency expanded the list of procedures on the compare tool to include upper endoscopy, arthroscopy–upper extremity, arthroscopy–lower extremity, varicose vein ablation, laminectomy/laminotomy (lumbar), and lower limb revascularization. We believe these continual additions offer evidence that CMS is making progress on the price transparency front—and making changes as needed.

Although price transparency and the No Surprises Act are still in the early innings, Alex Azar, former Secretary of Health and Human Services during President-elect Trump's first term, noted that healthcare providers and insurance companies should begin complying now to avoid unnecessary penalties.

Azar pointed out that the initiatives launched during President Trump's initial time in office, which are continuing under the Biden administration, will not be reversed. Azar even said, "There's no going back on transparency in pricing information. You can choose to resist or ignore it, or you can embrace it and figure out how to turn it into a competitive advantage for your organization." To us, this means that price transparency is here to stay, and that policymakers and regulators agree on these initiatives.

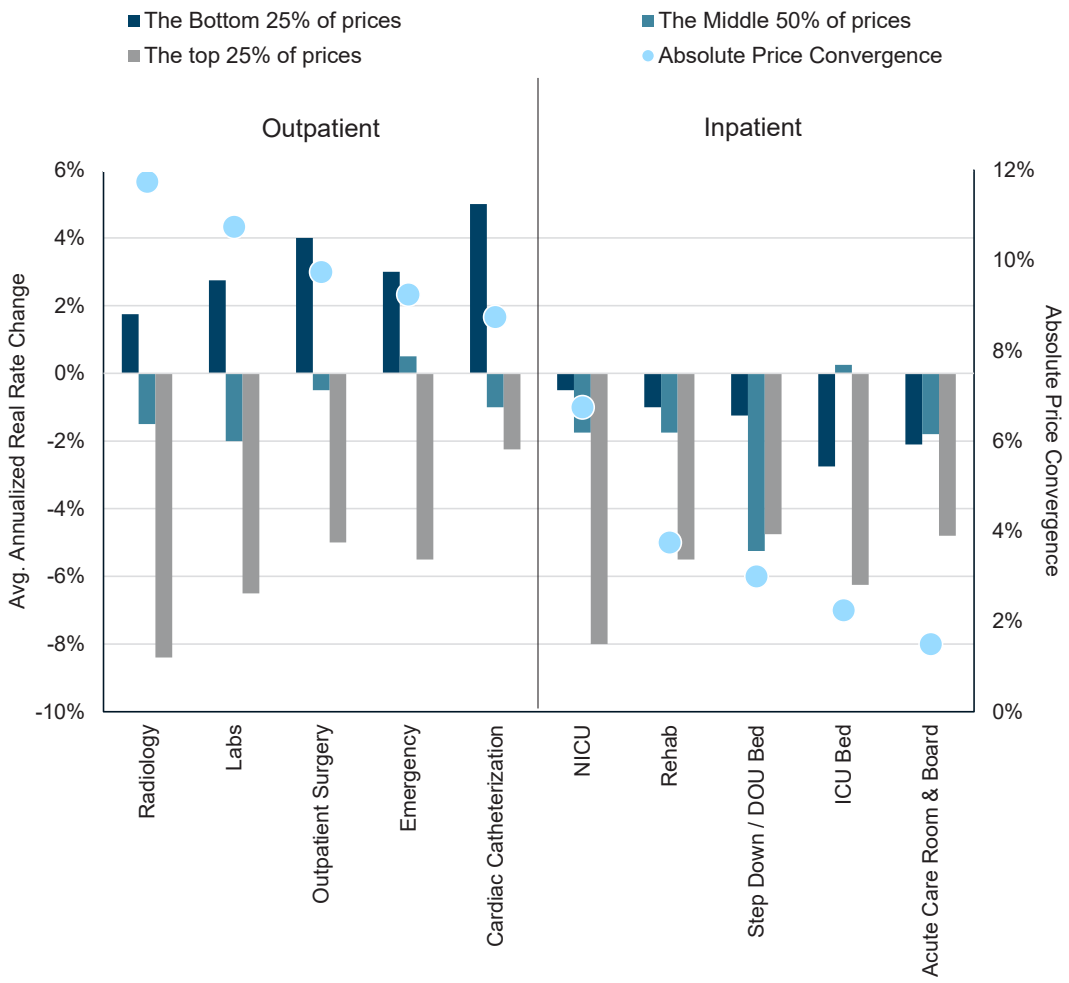
Further, we believe public policy goals and the regulatory environment are clearly aligned in pushing for greater price transparency. Still, plenty of work remains to ensure that this data is usable for patients and impactful to helping them make informed healthcare decisions.

In a 2024 analysis published by the Peterson-KFF Health System Tracker, several limitations of current price transparency initiatives were discussed. The analysis identifies three main issues: inconsistencies in the presentation of listed prices (for instance, whether a charge is expressed as a daily rate or for an entire treatment episode), significant variability in data quality (such as presenting negotiated rates as a multiplier or percentage of another base rate), and incomplete information (including missing details about contracting methods or payer classes). In short, the effectiveness of price transparency for comparison shopping is compromised, as pricing data is not consistently available on a comparable basis across different hospitals.

The authors of the analysis note that these challenges do not indicate noncompliance with CMS policies; instead, they highlight intrinsic flaws in the effort to use price data to promote consumerism. This situation represents an opportunity for healthcare technology and service organizations, like patient navigation providers, to address these gaps and empower consumers in their healthcare decisions.

Supporting this data, Turquoise Health, in the *2024 Is Price Transparency Helping* report, analyzed rate changes between the top, middle, and bottom tiers for 37 common healthcare services. These were then grouped into 10 major service categories to calculate the average rate change per segment. The exhibit below shows the rate changes for the major categories, sorted by decreasing price convergence.

Exhibit 8
Consumer-Centric Healthcare
Variation in Price Convergence Across Services



Source: Turquoise Health; William Blair Equity Research

The analysis reveals that radiology and laboratory services, positioned on the far left, demonstrate the highest level of price convergence among healthcare services. **These outpatient services are shoppable, with many listed among the services identified by CMS as shoppable.** Conversely, on the far right, we find ICU beds and acute care room and board, which are less shoppable inpatient services that reveal the least price convergence. It is important to highlight that the five service categories on the left exhibiting greater price convergence are all outpatient services, while the five service categories on the right with lower price convergence are exclusively inpatient services. The fact that roughly one-third of all hospitals do not have a searchable MS-DRG with price listed for a fairly common "shoppable" service speaks to a limitation of price transparency data, in our view.

Another challenge for true price transparency is that hospital encounters—particularly those that are tied to an inpatient admission—tend to involve multiple procedures, services, or equipment. A particular episode of care may also trigger ancillary fees associated with the visit, such as operating room (OR) charges, that are not captured in the service price list but are meaningful to a patient. Thus, any specific code is going to give a limited picture of the patient's true cost and

further muddies the ability to shop for care. To make a comparison, this would be like going to a bakery website to order a cake, but having the pricing being ultimately dictated by the number eggs, grams of flower and sugar used in the cake, decorations added, total labor input, packaging, etc. without any ability to determine what the actual ingredients are in the cake you want to order.

Ultimately, we remain positive on the value of providing price transparency to consumers, and we expect this data to become increasingly more valuable to facilitate healthcare shopping over time. Still, given the inherent complexity of healthcare pricing, contracting, and billing, we believe there will continue to be a strong value proposition for tools that can help patients truly understand cost and make informed decisions about their care journey.

Here, we believe several start-ups are targeting the market, given the increased access to payer and provider pricing data in usable formats. This likely will spur a variety of more consumer-friendly care pricing tools over the next few years, in our view. As an example, Ribbon Health, an API data platform, partnered with Turquoise Health to integrate the latter organization's database of 1 billion records of pricing data from 4,000 hospitals across the country.

Operators like Careignition work to take complex, fractured codes and turn them into clear, uniform prices (i.e., they show the price of the cake, not the ingredients). Emerging retail competitors—all of which typically list the price of services up front—should add more pressure for legacy vendors to do the same, at least for comparable services.

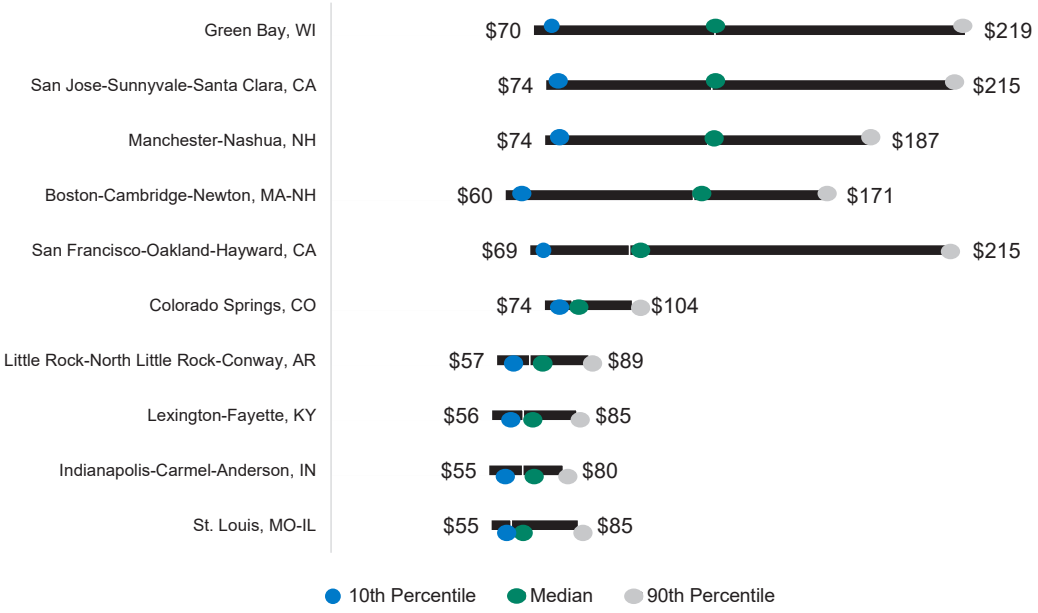
Lastly, we believe the emergence of value-based care providers, and VBC enablement companies, has increased the focus on access to price and quality transparency materially. VBC operators enable providers to maximize the value of downstream referrals toward the highest-value providers/locations, as these operators bear the full cost of care for a designated patient population, thus having a clear incentive to drive these transparency efforts.

Examples of Price Variation

As we have done in past editions of this report, we believe it is relevant to highlight the wide—and seemingly inexplicable—range of prices for healthcare services in the United States. This is a key reason we believe the need for pricing transparency is so critical.

First, we believe one side effect of this has been the emergence of seemingly random variance in the cost of receiving care. As shown in exhibit 9, for an existing patient office visit, a common healthcare service, the Health Care Cost Institute found significant variation in the range between the top and bottom deciles in the same markets (and across different markets).

Exhibit 9
Consumer-Centric Healthcare
Cost Variation for an Existing Patient Office Visit Within Metro Areas



Source: Health Care Cost Institute 2016 Data; William Blair Equity Research

More specific, in the San Francisco-Oakland-Hayward metro area, the 90th percentile price was 213% greater than the 10th percentile price. Other markets, such as Colorado Springs, Colorado, had much less variation in prices for this service, with only a 41% increase between the 10th and 90th percentile. It is important to note that *this differentiation in cost exists within the same metropolitan area, and thus cannot fully be explained simply by geography, payer mix, and/or cost of living differences.*

This variation is further observed across the country for specific payers. A recent *JAMA Health Network* article analyzed prices paid by Humana, revealing significant price differences across seven common healthcare services, as shown in the exhibit below. Since Humana primarily serves the Medicare Advantage market, this variation cannot be attributed to differences in patient type or insurance offering. Instead, it likely reflects a combination of provider quality and local market power—key factors that influence payer-provider contracts and local pricing.

Exhibit 10
Consumer-Centric Healthcare
Summary Price Data for Core Healthcare Services Paid by Humana

Healthcare Service	No. of Clinicians / Facilities With HUM Prices	Mean (Median) [IQR], $	Ratio of 25th - 75th percentiles	Coefficient of Variation
Established patient office visit	189,471	99 (88) [69-114]	1.65	0.46
High-severity ED visit	16,757	268 (226) [169-320]	1.89	0.53
Colonoscopy	5,714	470 (417) [348-528]	1.52	0.44
Lipid panel	24,972	19 (15) [12-21]	1.75	0.63
Lower-extremity MRI	6,942	388 (333) [251-456]	1.82	0.55
Hip arthroplasty	4,192	1,735 (1,498) [1,231-1,930]	1.57	0.47
CT of head or brain (w/o contrast)	6,649	194 (164) [132-218]	1.65	0.51

Source: *Transparency in Coverage Data and Variation in Prices for Common Health Care Services* ; William Blair Equity Research

Lastly, we believe data compiled by New Choice Health, a consumer-focused online platform to help patients shop for medical care, showcases the wide range of pricing for shoppable items such as a cataract surgery, both across the country and within specific markets.

For example, based on the organization's analysis, the national average, regardless of healthcare coverage, for cataract surgery is roughly $2,500; however, the national range varies between $891 and more than $13,900, or about seven times greater. This variation becomes even more drastic on a statewide basis. In New York, for example, the minimum insured negotiated price for a cataract surgery is about $530, while the maximum is nearly $30,000; however, the minimum discounted cash price is $2,557.

The exhibit below highlights wide price variation for a cataract surgery within specific markets.

Exhibit 11
Consumer-Centric Healthcare
Cataract Surgery Cost Averages

Location	Minimum Insured Negotiated Price	Minimum Discounted Cash Price	Maximum Insured Negotiated Price	Price Variation
California	$119	$2,546	$16,193	136x
Indiana	$237	$4,941	$18,423	78x
New York	$528	$2,557	$29,979	57x
New Jersey	$569	$3,820	$11,430	20x
Idaho	$714	$1,724	$10,635	15x
Kentucky	$706	$3,679	$10,305	15x
Oregon	$521	$1,113	$6,590	13x
Louisiana	$1,305	$2,592	$11,778	9x

Source: New Choice Health; William Blair Equity Research

These studies illustrate the vast pricing inefficiencies that still exist in the healthcare market in the United States. This highlights the need for continued improvement in healthcare pricing transparency, which in turn will provide the proper market signals to drive toward efficiency in the healthcare market, in our view.

Healthcare Prices Also Convey Important Information to the Market and Consumers

Given the previously mentioned disparity in the cost of care, it also becomes imperative, in our view, for the purchasers of healthcare to have access to timely and relevant price and quality information if they are expected to become more directly responsible for healthcare spending. While we discuss several transparency developments in the following section, we first highlight the importance of *accurate* pricing information in healthcare, and how consumers respond to these signals.

Accurate prices also convey important signals to the market, guiding firms (or in this case providers) on making service line delivery expansion/contraction decisions and guiding consumers as to how they allocate their spending (or where they go for care delivery). When prices are pushed artificially high or low, imbalances in the supply and demand for these services arise.

In our view, this is currently the case in the healthcare sector, where both the overuse and underuse of resources is common because of the inaccuracies in the pricing mechanism. This is demonstrated by the underuse of maintenance medication by patients with chronic conditions when costs are shared with the patients, and conversely, the overuse of advanced imaging for lower back pain largely due to it being covered by health insurance and providers having already invested in the fixed costs of the equipment.

Other examples of distortions in pricing signals arise from what were well-intentioned policy decisions. For instance, to assist hospitals with the high cost of care they provide, Medicare may pay more for the same care than what is delivered in a nonhospital setting, regardless of whether it is the optimal provider in a given situation (although this is changing given recent regulatory developments).

As evidence of this, a recent study published in *Health Affairs* suggests that insurers negotiated median hospital prices for commercial plans that were two to three times higher than their MA prices for the same services at the same hospital. In addition, the median price ratio between commercial plans and MA varied across different services within the same hospital: it was 1.8 for surgery and medicine services, 2.2 for laboratory tests and emergency department visits, and 2.4 for imaging services.

A 4,000-hospital study analyzing 2022 data published by RAND found that private insurers paid three times what Medicare paid to one hospital, while that same private insurer paid only two times Medicare at another hospital in the same city (with the same quality rating). Thus, while this helps explain why one hospital might be more expensive than another, we believe there is still a "shoppability" aspect for consumers, often steering them toward the suboptimal providers.

More specific, having a lack of neutrality in prices across sites skews care delivery toward the suboptimal providers and creates an additional layer of complexity for a patient's care journey, thus misallocating resources and driving up the total costs of the system. For example, a recent report from Harvard University and the National Bureau of Economic Research, published in JAMA, indicated that ***hospital services cost 31% more at consolidated health systems than private care providers. The same report stated that physician services in a large system typically cost between 12% and 26% more than services provided at private practices.***

Healthcare service prices vary significantly across different care settings, as shown in the exhibit below from Definitive Healthcare. Using its Atlas Claims dataset, the organization analyzed prices for 10 common clinic services. The findings indicate that retail clinics tend to charge lower prices, which may pressure the market for many common services in the future.

Exhibit 12
Consumer-Centric Healthcare
Average Charge Per Claim for Common Retail Clinic Diagnoses

ICD-10 Description	Retail Clinic	Urgent Care Center	Physician Office	Hospital Outpatient
Encounter for immunization	$104	$154	$241	$378
Contact with and (suspected) exposure to COVID-19	$86	$326	$467	$891
Type 2 diabetes mellitus without complications	$160	$239	$367	$505
Encounter for observation for suspected exposure to other biological agents ruled out	$209	$296	$296	$442
Type 2 diabetes mellitus with hyperglycemia	$255	$263	$639	$1,325
Chronic kidney disease	$607	$424	$1,500	$1,967
Encounter for screening for respiratory tuberculosis	$52	$154	$149	$388
COVID-19	$205	$348	$2,135	$2,072
Chronic obstructive pulmonary disease, unspecified	$491	$287	$883	$978
Acute pharyngitis, unspecified	$251	$308	$456	$929

Source: Definitive Healthcare

But even if simple and accurate pricing conveyed correct information about the supply and demand of healthcare services, we believe a key question remains: *Would consumers respond to these signals in the same way they typically respond to other consumer purchases?*

A recent consumer survey report, conducted by the Marist Poll on behalf of Patient Rights Advocate, Inc., helps address this question. This survey, conducted in late 2023 and published in 2024, polled 1,130 adults about their experience receiving healthcare. Nearly all (94%) surveyed respondents believe (either strongly agree or agree) that healthcare organizations should be legally required to disclose all of their prices; furthermore, 93% believe hospitals should post all actual prices, not just estimates, in advance of planned care.

Most importantly, when asked if they could see actual prices in advance of care and access actual prices of competition, more than 9 of 10 (91%) patients would shop for the best quality of healthcare at the lowest possible price. In other words, we believe this data suggests that accurate and timely price information is a core driver of patients' overall experience with their healthcare journey.

Salucro's *2023 Trends in Patient Communications* report (latest data available) paints a similar picture, in our view, regarding the role that accurate price information plays in shaping consumers' perception of their healthcare experiences. Over 30% of consumers in this survey stated that a poor experience or inaccurate bill would prompt them to switch providers or leave a negative review. In addition, more than 40% of respondents felt that their providers were not transparent about the costs of their medical care. We believe that providing accurate price data is crucial for fostering a positive patient experience, which can lead to greater patient retention. However, many patients feel that their providers are not delivering the transparency they need in this area.

Salucro's report further reveals that nearly two-thirds of patients use online portals to pay their medical bills. This indicates that patients are comfortable with self-service options for medical billing, which we believe supports the integration of price transparency tools. By offering clear and accurate cost information, these tools can empower patients to make more informed decisions about their care, ultimately enhancing their overall experience.

A 2024 study by Kyruus indicates that consumers continue to prioritize cost information when making healthcare decisions. The findings reveal that 60% of consumers report that their health plans offer transparency tools, and of those that have used the transparency tool, 90% believe it helps them make informed decisions.

Similar conclusions were also reached from data presented in Ipsos PES 5 report. More specific, roughly 70% of respondents are in support of requiring hospitals and clinics to be more transparent about how much they mark up the costs for prescription medicines; 63% are in support of requiring health insurers and PBMs to pass on any rebates or discounts they receive from pharmaceutical companies on prescription drugs at the pharmacy counter. Additional survey findings can be found in the following exhibit.

Exhibit 13
Consumer-Centric Healthcare
Survey Responses to "What Are Some Policies That the Government Could Pursue to Address Healthcare Costs?"

Health insurers and PBMs		Hospitals	
Requiring health insurers and PBMs to pass on any rebates or discounts they receive from pharmaceutical companies on prescription drugs at the pharmacy counter	63%	Requiring hospitals and clinics to be more transparent about how much they mark up the costs for prescription medicines	70%
Cracking down on abusive practices by PBMs and health plans like inappropriate fail first (step therapy) and prior authorization	64%	Requiring hospitals to use the discounts they receive on prescription medicines to help low-income and uninsured patients access the medicines they need	57%
Ensuring copay assistance provided by pharmaceutical manufacturers goes to patients as intended and NOT to health insurers and PBMs	65%	Driving greater oversight and transparency of safety net programs like 340B to ensure that hospitals and other entities are using drug discounts they receive to serve needy patients	55%
Requiring Medicare Part D plans to pass on any rebates or discounts they receive from pharmaceutical companies on prescription drugs to seniors at the pharmacy counter	60%		
Ensuring copay assistance provided by pharmaceutical manufacturers counts toward plan deductibles and out-of-pocket maximums	53%		
Requiring health insurers to set a maximum limit for what patients pay out of pocket just for Rx medicines each year	48%		

Source: Ipsos PES 5 Results; William Blair Equity Research

Again, we believe there are ample data points that suggest patients desire cost information and are likely to use that data when making decisions about their healthcare.

State Efforts to Promote Price Transparency

As alluded to above, we believe state governments are starting to take action as well. Before 2020, about a third of U.S. states had price transparency laws aimed at helping consumers find healthcare costs. States like Massachusetts, Alaska, and Florida require insurers and providers to provide cost estimates upon request. However, few consumers use these tools, and they have minimal impact on prices, according to data published in the *New England Journal of Medicine* (in 2018, although we believe this is still relevant).

In New Hampshire, a price comparison tool showed that only 8% of patients seeking imaging services used this tool. Nevertheless, ***there was a 4% decrease in the prices of those services over five years, which we believe suggests that these tools could be more effective in lowering prices for interchangeable services like imaging and lab tests but are less effective for hospital and physician services.***

Several states have also made recent strides by enacting laws to support the federal price transparency efforts:

- Virginia now mandates that hospitals adhere to federal hospital price transparency regulations.
- Indiana has implemented a requirement for hospitals to maintain compliance with these federal rules, even in the event of their repeal or lack of federal enforcement.
- Minnesota extends price transparency obligations beyond hospitals to include other healthcare providers, such as outpatient surgical centers, major imaging and laboratory service providers, and large dental service providers. These entities are required to disclose their negotiated prices, gross charges, and discounted rates for self-pay patients.

- Arizona tasks its Department of Health Services with enforcing federal price transparency rules and requires it to publicly list noncompliant hospitals.

- Arkansas imposes state penalties on hospitals that fail to comply with federal requirements.

- Colorado prohibits hospitals from pursuing unpaid medical debt unless they can prove compliance with federal transparency rules.

Texas, which is now enforcing price transparency more strictly than many other states, has codified the federal hospital price transparency rules and added tougher penalties for noncompliant hospitals. The state has also extended transparency requirements to health plans not covered by federal rules, such as short-term limited duration plans, and has issued detailed rules to standardize data and simplify analysis.

In addition, in late October 2024, Colorado—specifically Governor Jared Polis, Lt. Governor Dianne Primavera, and PatientsRightsAdvocate.org (PRA)—launched the Colorado Hospital Price Finder. This new tool aims to provide people in Colorado with the ability to research prices at every hospital and shop for what works best for them. This service will also show the total price the hospital charges each payer.

Examples of Transparency Initiatives
In this section, we highlight some examples of health plans, providers, and start-ups that are embracing cost and quality transparency.

Chicago-based ***Health Care Service Corporation*** (HCSC) is now offering an alternative health plan that streamlines the member experience and "encourages" people to choose providers that have demonstrated high-quality, cost-effective health outcomes. Under this new plan, members select a provider and are informed up front of expected out-of-pocket costs; the member then pays the lowest amount for selecting providers with the highest rankings, based on HCSC's key care metrics. Even more, at the time of service, the member pays nothing and then receives one bill at the end of each month. This new plan is now an available option for large self-funded group customers, with members able to access this as of December 1, 2024.

Handl Health, which has surfaced in the headlines as of late, compares providers' and carrier networks' prices. The organization mainly deals with hospital and plan files, concentrating on the employer-sponsored market by developing a tool to identify unit prices and establishing a capability for cost comparison across networks.

Zelis, a healthcare technology company that provides cost management and payments solutions, helps members compare rates through its SmartShopper platform. SmartShopper is a digital care navigation solution, enabling members to search for and select healthcare providers. It includes a personalized concierge service that offers assistance via phone, chat, or email, which facilitates the process of finding and scheduling care.

Furthermore, Zelis provides patients with transparent and comprehensible cost information about these providers through its dashboard. This functionality empowers patients to compare various options among different caregivers, enabling them to make informed decisions about the selection of the most suitable provider for their individual needs.

In early 2023, ***OptumRx***—the pharmacy benefit subsidiary of UnitedHealth Group—launched Price Edge. This new solution scans and compares direct-to-consumer pricing with insurance coverage pricing for a given product to provide Optum members with the best available price. If there is a lower price for a drug that would be available outside a member's health insurance benefit,

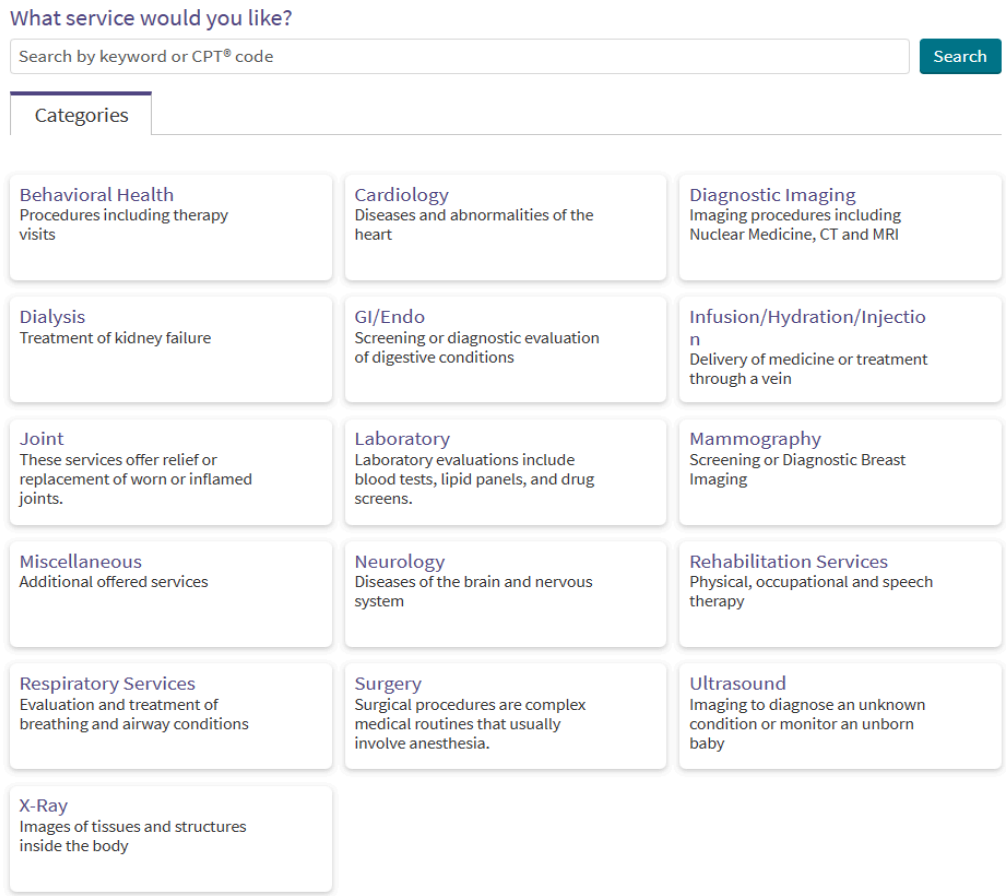
Price Edge is designed to identify that and apply to the member's coverage. This means that spending through Price Edge will count toward a member's deductible and out-of-pocket maximum (which would not be the case if a member purchased drugs via cash pay).

Similarly, and most recently, ***CVS*** is attempting to improve its pharmacy experience through its new CVS app. CVS will provide a more wholistic experience for its members with its pharmacy business by allowing patients to input their insurance coverage (and drug-benefit information) to show what the total cost of a prescription will be. While not a comparability tool in and of itself, we believe members will be able to use this tool to see what the cost will be before arriving to pick up the medication—and ultimately could shop around to compare prices if desired.

Northwestern Medicine and ***Rush University,*** two Chicago-based health systems, offer patients the ability to check estimated out-of-pocket costs for more than 300 services at the organizations' respective websites via web-based tools. Patients can access the web-based cost estimator tools via the organizations' respective patient portals, with both systems leveraging MyChart powered by Epic's electronic health record.

From there, patients are prompted to select the facility within the system where they would expect to receive care. Patients can look up their particular service via either a keyword search or CPT code, or by looking up the service under various categories (e.g., imaging).

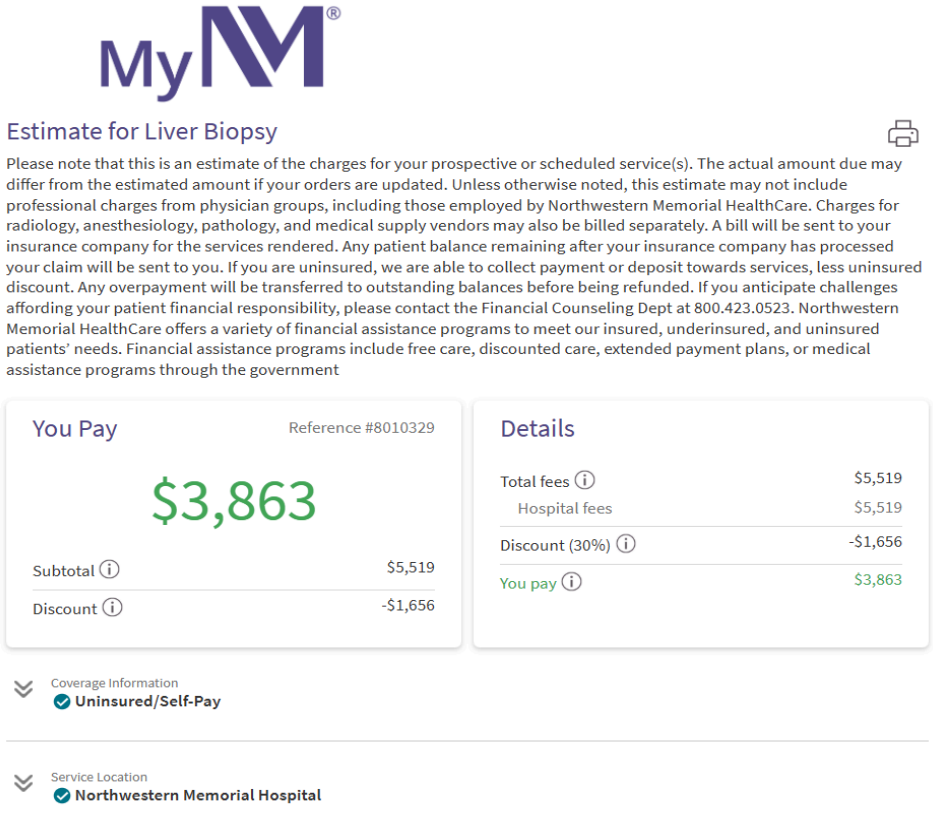
Exhibit 14
Consumer-Centric Healthcare
Northwestern Medicine Price Estimator Tool



Source: Northwestern Medicine

After selecting their service, patients are then prompted to enter their insurance information (or to select self-pay if applicable). This then allows the provider to provide an accurate out-of-pocket cost estimate for the patient. As shown below, a self-pay patient seeking a liver biopsy would owe about $3,900 for the procedure.

Exhibit 15
Consumer-Centric Healthcare
Northwestern Medicine Cost Estimator Tool



Source: Rush University Health System MyChart Website

This tool is just one of many such examples we see in the space as providers comply with CMS's transparency initiatives. We believe such offerings will only continue to increase in prevalence as providers look to not only meet regulatory requirements but also match emerging competition in the space—competition that tends to list prices much more frequently than incumbents—much like the example from CVS Health on the Minute Clinic in the exhibit below.

Exhibit 16
Consumer-Centric Healthcare
Sample Price List for Minute Clinic

Out-of-pocket service prices

Our convenient care is lower cost than other health care providers.

For the services on this list, we welcome cash, checks, credit/debit cards and FSA/HSA cards. We don't accept insurance for these services.

In addition to this list, we offer 195 services where most insurance or payment at the time of service is accepted.

Physicals	
Camp physicals	$74
DOT physicals	$119
DOT physical follow-up	$35
Sports physicals	$74
Travel health	
Malaria prevention	$59-$69
Motion sickness prevention	$59-$69
Pre-travel consultation	$59-$69 (plus lab and admin fees)
Traveler's diarrhea prevention & care	$59-$69
Typhoid vaccine	$189

Source: CVS website

The Bottom Line

Healthcare truly is now a consumer-driven industry. We believe that transparency initiatives remain central to enabling a consumer-driven revolution in healthcare, but like any seismic change in a market, the release of price and quality data in a way that is convenient and useful to consumers continues to move forward at a gradual pace.

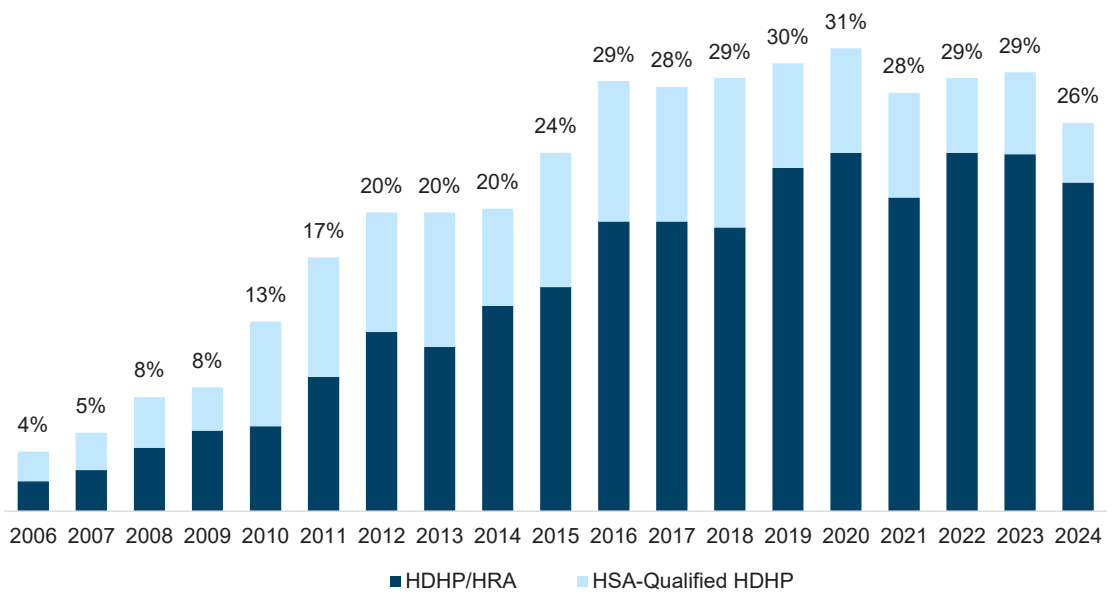
As shown in this report, consumers are already comparison-shopping for a proportion of "shoppable" healthcare spending, and we expect that this will drive more rapid change among healthcare providers seeking to maintain market share and improve collections, by health plans seeking to steer patients toward low-cost and high-performance providers, and by technology vendors seeking to bring together disparate datasets in a way that is useful to the consumer.

Factor Three: More Financial and Quality Responsibility Borne by Healthcare Consumers

The third tenet of consumer-centric healthcare thesis is that consumers, in general, will make better healthcare decisions and healthier lifestyle choices when their own dollars are at risk and as they become more engaged in their overall care journey. One key driver of this change, in our view, is the increase in high-deductible health plans (HDHPs) across the United States.

According to the KFF 2024 Employer Health Benefits Survey, the percentage of covered workers enrolled in an HDHP, HRA (health reimbursement arrangements), or HSA-qualified (health savings account) HDHP has increased substantially over the past two decades. In 2006, only about 4% of workers were enrolled in an HDHP or HRA. By 2024, this percentage increased to about 26%, as shown in the exhibit below. ***Although growth has recently stalled and even declined, we anticipate that ongoing inflationary trends in healthcare at the employer level will lead to an increase in high-deductible plan coverage in 2025 and beyond.***

Exhibit 17
Consumer-Centric Healthcare
Percentage of Covered Workers Enrolled in an HDHP, HRA, or HSA-Qualified HDHP



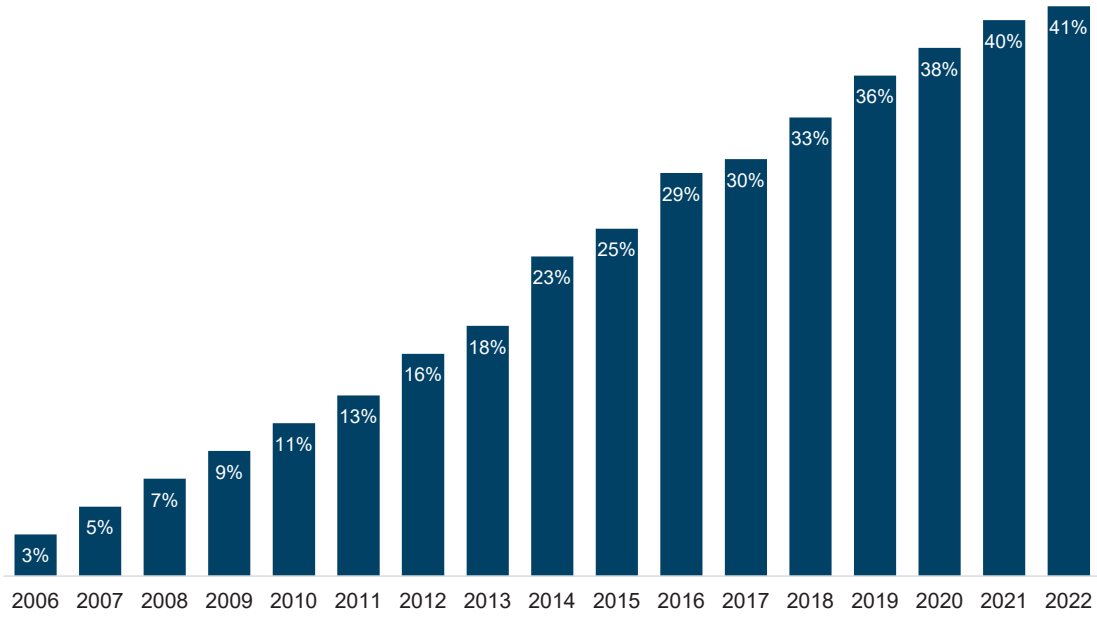
Source: KFF Employer Health Benefits Survey; William Blair Equity Research

An analysis by ValuePenguin revealed similar trends regarding the enrollment in HDHPs. The data indicated that HDHP enrollment has been steadily increasing in recent years, reaching as high as 54% in 2022. In addition, the Bureau of Labor Statistics reported that the availability of HDHPs for all private industry workers, including both union and nonunion employees, was 51% in 2023. This figure represents a significant increase from just 33% nearly a decade ago.

Breaking this down further, union workers experienced the most notable change in HDHP availability, with an increase of more than fourfold since 2014, rising from 8% in that year to 35% in 2023. Therefore, we believe that the adoption of HDHPs has been on the rise, and the data clearly indicates that consumers now have more of their own dollars at risk when it comes to healthcare spending.

As a final data point, Mercer's 2022 *National Survey of Employer-Sponsored Plans* (latest data available) indicated that the percentage of overall employees enrolled in an HDHP continues to tick upward, reaching a record 41% in 2022, as shown in the exhibit below.

Exhibit 18
Consumer-Centric Healthcare
Percentage of Covered Employees Enrolled in Account-Based CDHPs



Source: Mercer Strategies to Compete for Talent; William Blair Equity Research

We believe that the data presented above indicates a greater financial responsibility for healthcare consumption by consumers, which is a key factor in driving consumer-centric healthcare into the mainstream.

Consumers Are Bearing a Larger Share of Overall Medical Cost as Well

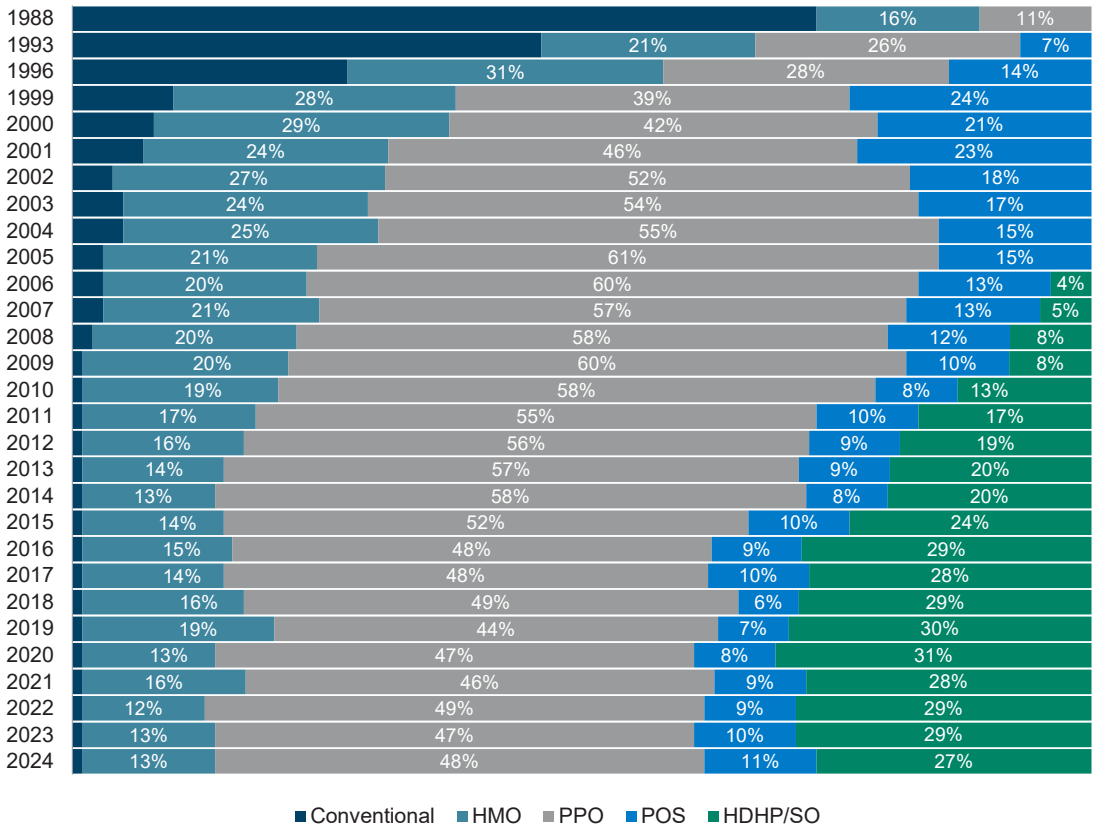
Each year, KFF and the Health Research and Educational Trust (HRET) release a detailed survey of the employer-sponsored insurance market. The latest edition highlights an important trend: employees are shouldering a larger portion of healthcare costs. This issue has been evident and has persisted since we published the first edition of our *Consumer-Centric Healthcare* report in 2005.

The percentage of covered workers who enroll in HDHPs has increased markedly over the last decade, while plan structures like HMOs and PPOs have generally seen their market share shrink. Specifically, looking at 2024, data shows that the share of HDHPs and HMO products has remained largely flat year-on-year (exhibit 19). HDHPs modestly decreased to 27% (down from 29% last year), while HMOs remained unchanged at 13%.

Overall, the share of HDHPs has remained relatively constant in recent years and reflects a nearly 10-percentage-point increase in the distribution of HDHP enrollees over the last decade. Furthermore, HDHPs still have the second-largest enrollment percentage, behind only PPOs, for the 13th year in a row, demonstrating the durability of this type of plan in the marketplace over an extended time frame, in our view.

As HMOs tend to narrow the network of providers and service locations available to a patient, this typically means they are also the least expensive product in the insurance marketplace. Thus, given the elevated cost of care and recent economic uncertainty, we believe some patients have continued to favor such plans in order to achieve greater cost savings. Still, we have witnessed this trend shift back in favor of more consumer-oriented products over the past few years, ultimately reflecting a continuation of the longer-term growth trajectory, in our view.

Exhibit 19
Consumer-Centric Healthcare
Distribution of Health Plan Enrollment for Covered Workers, by Plan Type

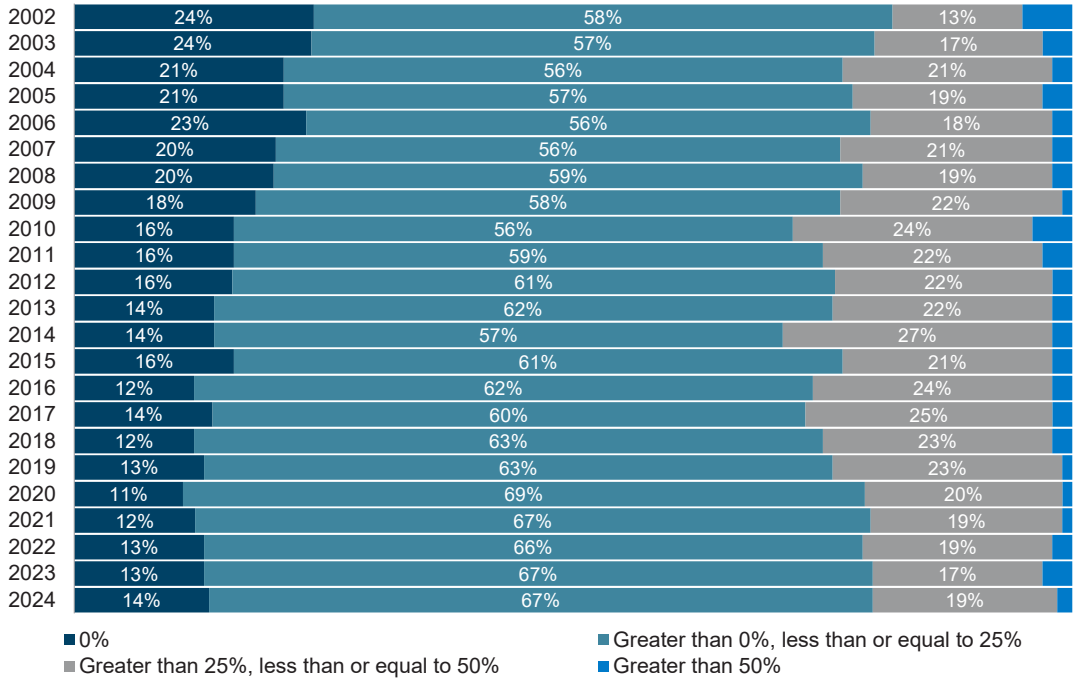


Source: Kaiser Family Foundation/Health Research & Educational Trust, Employer Health Benefits Survey (2024)

Given that HDHPs typically have relatively lower premiums, we believe one of the drivers of the shift toward these plans has been an increase in the *portion of the monthly premium taken on by employees.*

For instance, the mix of workers who make no contribution to their premium for single coverage has decreased from 24% in 2002 to only 14% in 2024, while the proportion of workers who pay between 25% and 50% of their premium has increased from 13% in 2002 to 19% in 2024 (exhibit 20). It is interesting to note that the proportion of premiums paid by workers for greater than 50% decreased this year.

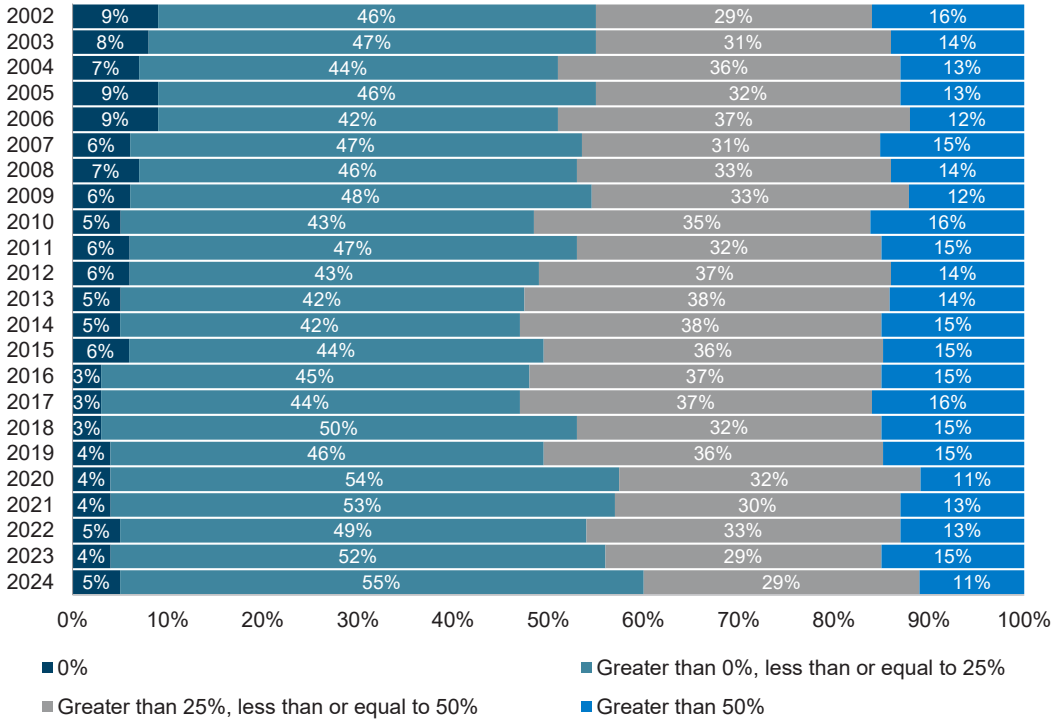
Exhibit 20
Consumer-Centric Healthcare
Distribution of Portion of Premium Paid by Workers for Single Coverage



Source: Kaiser Family Foundation/Health Research & Educational Trust, Employer Health Benefits Survey (2024)

A similar trend can be observed for family coverage as well (exhibit 21); in 2002, 9% of workers made no contribution to the premium, which fell to the mid-single digits in 2016 and has remained at that level since.

Exhibit 21
Consumer-Centric Healthcare
Distribution of Portion of Premium Paid by Workers for Family Coverage



Source: Kaiser Family Foundation/Health Research & Educational Trust, Employer Health Benefits Survey (2024)

While Overall Premiums Are Up, Worker Responsibility Is Down

Employees and employers alike are facing higher overall costs related to annual insurance; however, there appears to be a modest shift in responsibility. According to KFF's 2024 Employer Health Benefits Survey referenced above, employee contributions for family healthcare coverage were $6,296 in 2024, down more than 4% from the prior year and indicating that the average employee contribution is now roughly 24.6% of total premium spending—the lowest level dating to before 2000. While this suggests that employers are attempting to take more of the healthcare burden, possibly to help attract and retain talent, we believe the larger picture is the growth in total healthcare costs.

Here, employee contributions have risen more than 30% over the past decade; employer costs have also followed a similar suit, increasing by more than 60% since 2014 to $19,276 in 2024.

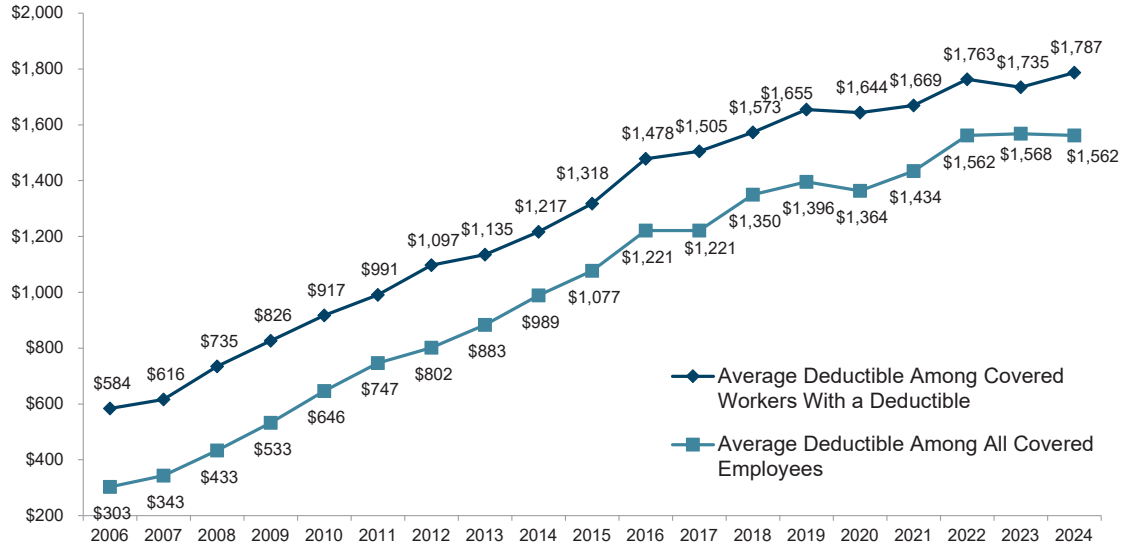
Deductibles Also Continue to Increase Markedly

Given these increases in HDHPs, it should come as no surprise that individuals' overall cash payments toward meeting healthcare deductibles also have increased markedly over the past several years.

Data from KFF suggests that deductibles continue to grow at a faster pace than worker earnings, putting further financial responsibility on patients. In the 2020 edition of the Employer Health Benefits Survey, Kaiser found that deductibles grew at a rate of 111% between 2010 and 2020, while average wage growth increased at a 27% rate (and inflation was only about 19% during this time frame).

A similar trend is evident when examining the average annual deductible for single coverage in the United States. Since 2006, this amount has increased more than threefold; specifically, the average deductible for a covered worker rose from $584 in 2006 to an average of $1,787 in 2024.

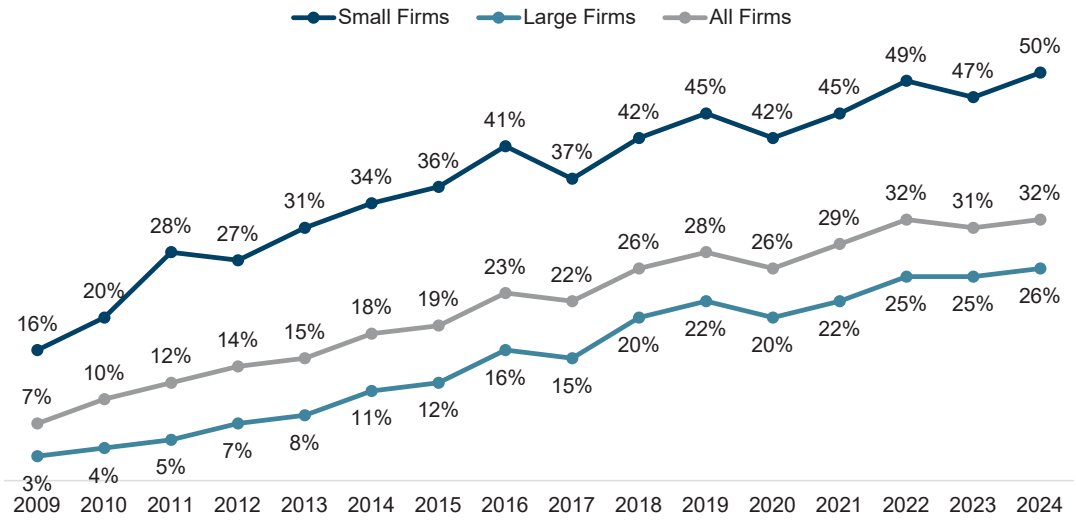
Exhibit 22
Consumer-Centric Healthcare
Average Annual Deductible for Single Coverage, 2006-2024



Source: Kaiser Family Foundation/Health Research & Educational Trust, Employer Health Benefits Survey (2024)

In the *2024 Health Benefits* update report, KFF estimates that 60% of covered workers at all firms (large and small) have a deductible of at least $1,000, an increase of nearly three times the percentage that was reported in 2009 (22%). ***KFF also estimates that 32% of covered workers at all firms have a deductible of $2,000 or more, up more than fourfold from 2009,*** while even 17% of all firms have a deductible of $3,000 or more.

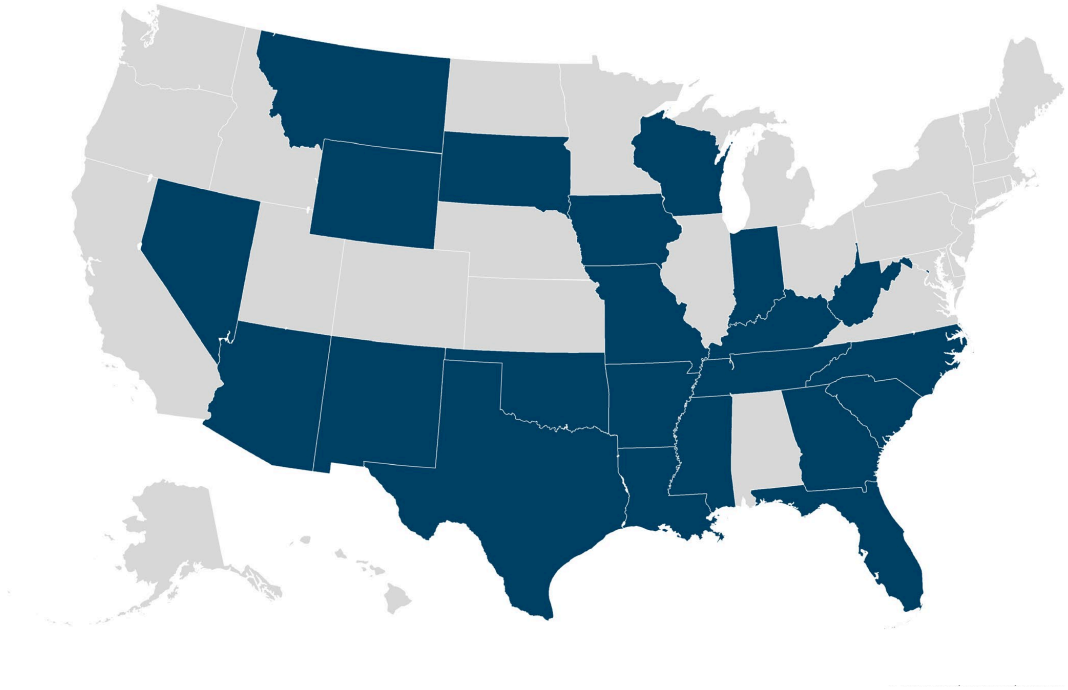
Exhibit 23
Consumer-Centric Healthcare
Percentage of Covered Workers Enrolled in a Plan With an Annual Deductible of $2,000 or More



Source: Kaiser Family Foundation/Health Research & Educational Trust, Employer Health Benefits Survey (2024)

Even more, a topic we first reported in our 2022 *Consumer-Centric Healthcare* report, there are 22 states where the average deductible equates to at least 5% of the state's median income (exhibit 24). While this data is slightly dated now (and the most recent data available), we believe the number of states facing this challenge is likely markedly higher than the 22 reported just two years ago.

Exhibit 24
Consumer-Centric Healthcare
22 States Have Average Deductibles of at Least 5% of Median Income



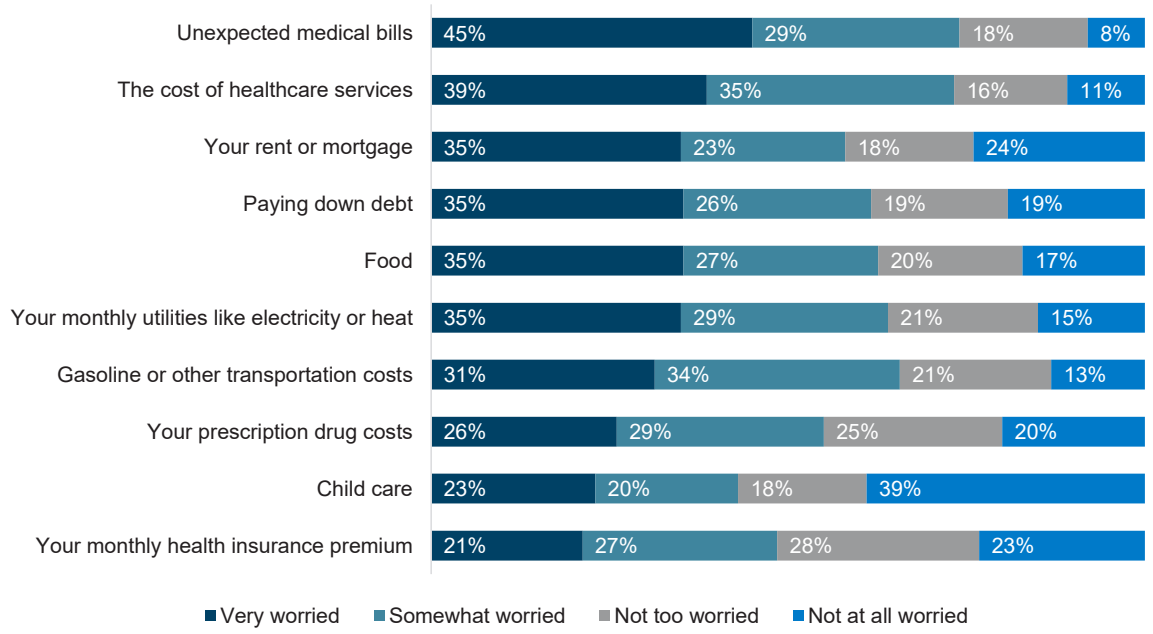
Source: Commonwealth Fund; William Blair Equity Research

We believe that the recent increase in inflation may also affect healthcare costs in 2025. If this occurs, we anticipate that the trend of workers facing higher deductibles will likely accelerate in the coming years.

We believe this trend may result in increased comparison shopping and greater scrutiny when it comes to healthcare purchases. Currently, more than half of insured consumers are facing substantial out-of-pocket costs for medical procedures, including those that previously exceeded historical deductible levels, such as imaging and outpatient surgeries.

Again, as discussed previously in the report, a recent 2024 KFF poll suggests that healthcare costs (and the prospect of unexpected medical bills) are among the top financial worries for adults. As shown in the exhibit below, 74% of adults are either very worried or somewhat worried about unexpected medical bills; 74% are worried about the general cost of healthcare services; and 48% are worried about their monthly health insurance premium. For comparison, 65% are worried about gasoline or other transportation costs and 61% are worried about paying down debt. In our view, this data supports the narrative toward more discretion in healthcare spending going forward. The exhibit below identifies the full list of responses from this survey.

Exhibit 25
Consumer-Centric Healthcare
Percentage of Adults Worried How to Afford Each Item

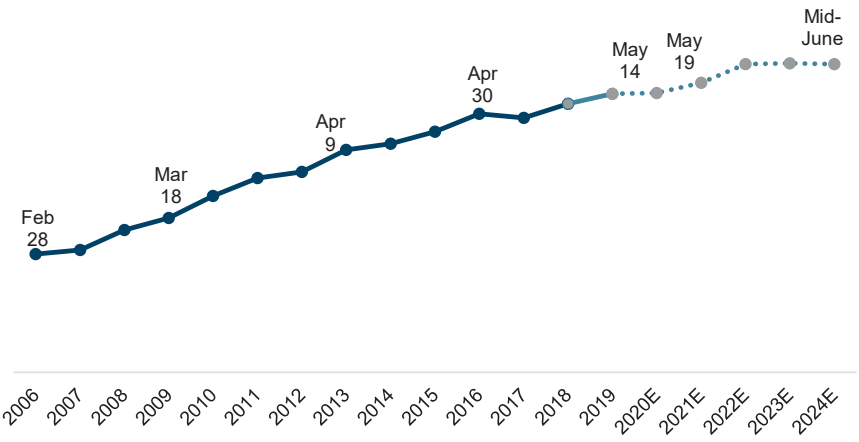


Source: KFF Health Tracking Poll; William Blair Equity Research

As we also have highlighted in past consumer-centric reports, it is not surprising that the number of days it takes patients to reach their deductible has increased as a direct result of increased deductibles. Kaiser conducted a study of the "deductible relief day," or the day of the year when average health spending among people with large employer coverage exceeds the average deductible for that given year. As exhibit 26 shows, the number of days to reach deductible relief has increased markedly since 2006. This study (from 2019, the most recently available data) estimated that it now takes patients well into May before reaching their deductibles, which exacerbates the affordability challenges faced by many consumers.

We further extrapolated this dataset to estimate where the deductible relief day may have been in 2022, based on historical patterns. We used a regression analysis with two inputs: the deductible relief day between 2006 and 2019 (provided by Kaiser) and the average deductibles from KFF during the same period. By using the average deductible as the independent variable, we found an estimated current relief day somewhere in mid-June.

Exhibit 26
Consumer-Centric Healthcare
Deductible Relief Day



Source: Kaiser Health Analysis of data from IBM MarketScan Database and the KFF Employer Health Benefit Survey; William Blair Equity Research

We view this as an interesting chart for broader healthcare investors as it could change the seasonality in healthcare demand over time, as consumers wait longer for medical procedures to obtain services after fulfilling their deductible.

HSA Balances Are Also at an All-Time High

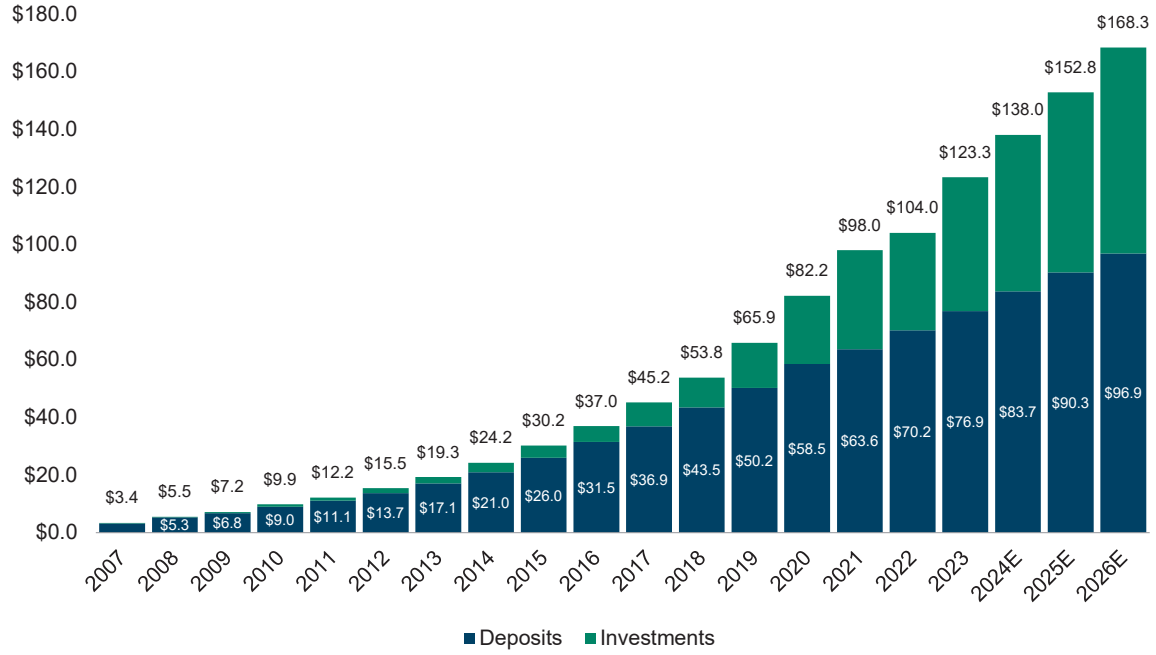
HSAs have become an increasingly common part of employee benefit packages, as employees seek solutions to mitigate their increasing healthcare financial responsibility. According to the 2024 HSA Survey from Plan Sponsor Council of America, more than 90% of employers offer a company-sponsored HSA program with pretax contributions, unchanged from last year. Moreover, 35% of employers have offered the HSA-qualifying option to employees for two to five years, while roughly 62% have offered an HSA for more than six years.

From the same survey, more than 90% of eligible employees had an HSA in 2023 (a modest uptick from 2022), and about 60% of employees proactively enrolled in the HSA-qualifying health option when offered the opportunity. In addition, 76% of employees with an HSA made contributions in 2023, which is actually down from about 80% in 2022. In our view, this metric is likely down because of continued financial pressures on adults (especially pointing toward the higher inflation environment); however, ***we view this data as further proof that the trend of increased financial responsibility for consumers is not only here to stay, but also likely to accelerate across all markets.***

Furthermore, average HSA account balances reached an all-time high in 2023. Average account balances reached $6,165, basically flat from last year, albeit up more than 25% from levels in 2021. On the contribution front, employees contributed $2,609 on average, up from $2,323 in 2022 by about 12%.

Total HSA balances also reached an all-time high of $123.3 billion in assets in 2023, up 19% year-over-year, according to the 2023 *Midyear Devenir HSA Research Report*. By the end of 2024, these assets are expected to have increased another 12%, with continued double-digit annual growth expected through 2026, exceeding $168 billion in assets held at more than 40 million accounts (exhibit below). We view this data as another indicator of increasing CDHP popularity, as consumers seek investment vehicles that help offset the increasing healthcare cost burden and put more healthcare spending dollars under their own purview.

Exhibit 27
Consumer-Centric Healthcare
Total HSA Assets ($ Billions)



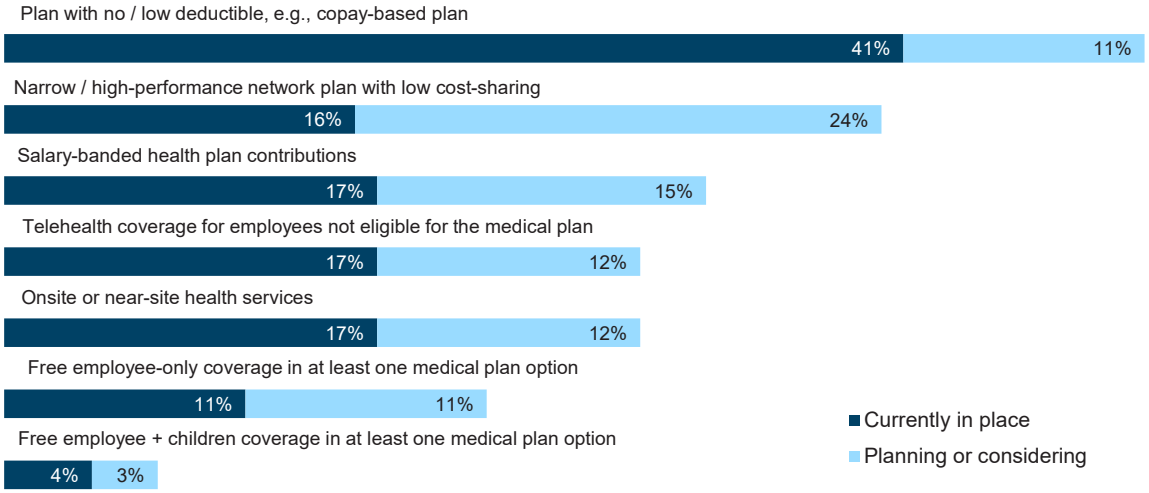
Source: 2024 Midyear Devenir HSA Research Report

How Employers Are Helping Workers Deal With Rising Healthcare Costs

In response to rising costs, employers are increasingly seeking innovative solutions to improve health outcomes and reduce employees' financial burdens. According to Mercer's 2024 National Survey of Employer-Sponsored Plans, 86% of large employers now consider "managing high-cost claimants" to be either "important" or "very important" for the long term. In addition, more than three-fourths of employers (76%) are focused on managing the cost for specialty drugs; 66% are focused on improving healthcare affordability; just under half (48%) want to enhance benefits/resources to support women's reproductive health; and 45% are focused on offering high-performance networks or steering to high-value care.

To help curb, or at least slow, the growth of healthcare costs for employees, ultimately making healthcare more affordable, we believe employers will again focus on a few key initiatives. According to the Mercer U.S. Health and Benefits Strategies for 2023 Report, the majority of employers (exhibit below) either currently offer or are planning or considering the following solutions: 1) a plan with no or low deductible (such as a copay-based plan); 2) narrow or high-performance network plan with low cost-sharing; and 3) salary-banded health plan contributions.

Exhibit 28
Consumer-Centric Healthcare
Strategies Employers Are Using to Improve Healthcare Affordability



Source: Mercer Strategies to Compete for Talent; William Blair Equity Research

To reiterate the data above, ***the affordability of healthcare remains a major concern for many workers, especially those with low wages or chronic health conditions.*** Recognizing this challenge, many employers have acknowledged that high-deductible, HSA-eligible health plans do not suit every employee. While high-deductible and HSA-eligible health plans have increased in demand over the past decade, we believe employers are beginning to turn to alternatives such as changes to benefits or plan design.

Interestingly, salary-based contributions have long been used to make health plan premiums more affordable to those earning less. At present, 17% of large employers surveyed use salary-based contributions, with nearly as many considering this strategy. However, we believe that implementing salary banding for the first time now could have a negative impact on recruiting, which is still an important consideration for employers.

The Mercer study highlights that many employers are directing employees toward high-value care options, including virtual care, to control rising costs. We believe that employers are increasingly using navigation and advocacy services to guide employees to these high-value care options. This was also a topic we addressed in our Healthcare Mosaic report series (Patient Navigation: A Critical Offering in Increasingly Complex Healthcare Marketplace).

Specifically, in the report, we noted that at-risk organizations, such as self-insured employers and managed care organizations, are more frequently incorporating navigation and advocacy services. Companies like Accolade, Included Health, and Quantum Health lead the industry in providing these services, which help steer patients to use their health benefits effectively and access more efficient care settings. We view this trend as a highly consumer-centric approach that can help direct patients to the best value care options, ultimately reducing cost trends over time.

Focus on Cost Transparency as a Response to Patient Financial Responsibility
To summarize a key theme discussed in the "Factor Two" section of this report, we believe that price transparency tools will continue to gain popularity in the marketplace as a consumer-focused value proposition.

We believe that employers have long been interested in price transparency regarding healthcare costs. As consumers increasingly face a growing financial burden for healthcare, it stands to reason that they too would seek greater cost transparency, just as they do in other areas of their spending. In other words, many patients who are more likely to make consumer-driven choices in their healthcare are looking for more affordable options, more accurate information, or simply better value for their money.

The Bottom Line
In our view, the rise of plan structures that require beneficiaries to shoulder a larger proportion of healthcare costs—although not always greeted positively by consumers—will ultimately make patients larger stakeholders in healthcare purchasing decisions, thereby creating incentives to seek quality care at a lower cost.

Factor Four: Health Insurers, Employers, and Consumers Are Embracing Consumerism

Throughout 2024, we continued to see evidence that providers, insurers, and employers were embracing consumerism, largely through solutions like patient engagement, digital outreach, and the use of account-based health plans such as HSAs and HRAs. To further support this trend, data is regularly published that validates the overall cost efficacy and improved outcomes associated with such consumer-focused initiatives. Thus, we believe this trend has a strong foundation and should continue to build momentum over the coming years.

Here, we also see continued traction in defined-contribution plans, as employers are providing their workforce with a fixed dollar amount for healthcare coverage. Employers typically allow employees to choose from a wide variety of coverage options, generally made available through private insurance exchanges. In our view, this allows consumers a variety of options and, therefore, will afford consumers the ability to shop for coverage. In our view, this could drive a wide range of cost differences between various health plans, based on subscribers' healthcare needs and the amount of pre-budgeted healthcare funding they receive from their employers. In all, we believe this has the potential to dramatically impact the healthcare landscape.

We also believe providers will need to embrace a more consumer-centric approach as this annual engagement with consumers becomes increasingly important. Providers will need to work to generally lower costs and compete on price and quality to remain in designated health plan networks. In our view, this has become even more competitive over the years, which is often driven by consumer demand. Regardless of the approach, we expect more consumerism in the market going forward, and provide the following data from 2024 of ways consumers appear to be embracing this change.

Consumer Research Is Becoming More Complex
First and foremost, consumers are beginning to evaluate healthcare decisions with the same level of consideration as they would view other major purchases. For example, consumers are looking at healthcare purchases in the same fashion as they would when purchasing a new car or an expensive electronic device.

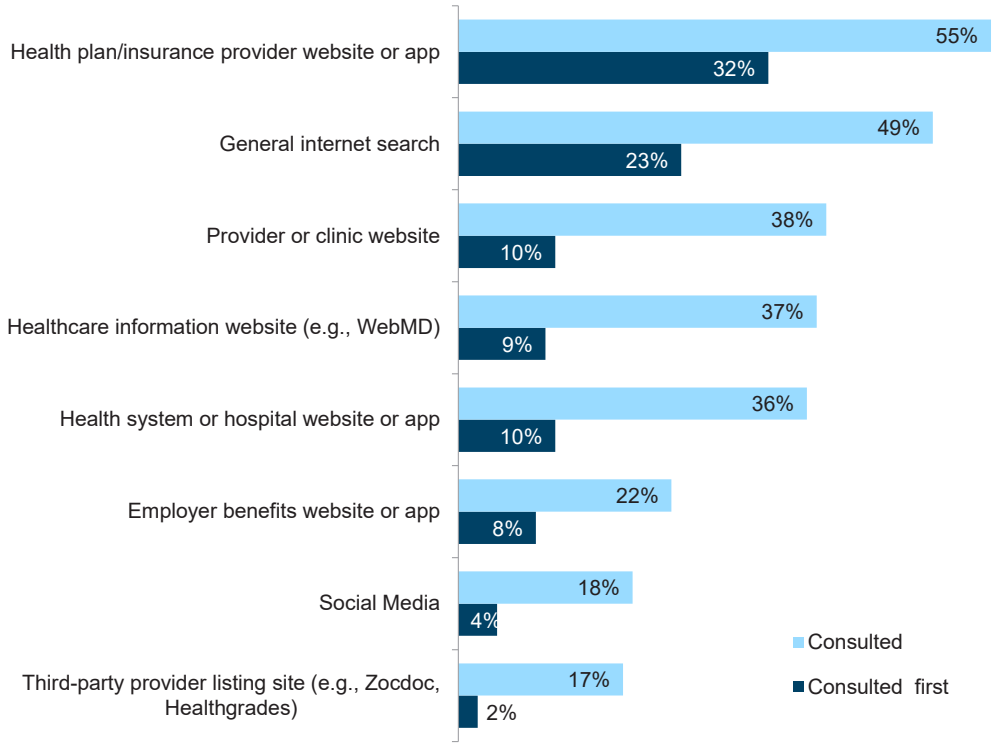
According to Tebra's *2024 Patient Perspectives* report, nearly 60% of patients said they use Google (or another search engine) to look for reviews of a healthcare practice. We believe these reviews are meaningful to patients, as 62% of respondents indicated that positive online reviews were an important factor in their decision to select a provider. Moreover, ZocDoc's most recent edition of *What Patients Want* describes patients as discerning in their care journey. The report notes that patients typically consider an average of 26 providers before booking a service.

Similarly, the *2024 Patient Access Journey Report*, a survey published by Kyruus of roughly 1,000 patients about healthcare preferences, finds that patients' demand for on-time and accurate information has increased considerably over the past few years, as patients are forced to bear more costs for their healthcare choices. In our view, this underscores the idea that patients view healthcare decisions in the same manner as other major purchases and are willing to perform their own due diligence rather than simply placing their faith, and ultimately their dollars, in someone else's hands (even if that other person is a qualified medical professional).

Consumers have more choices than ever, including traditional healthcare services providers and nontraditional players that have entered the market (such as retailers), which we believe is driving more research throughout the care journey. According to the 2023 *Consumer Health Survey*, 45% of high-deductible plan enrollees have at least three plans to choose from; when evaluating health plan operations, patients consider provider networks, out-of-pocket costs, monthly premiums, and prescription drug coverage.

From the Kyruus survey, roughly 50% of consumers use a general internet search for their own healthcare research, up from just 23% last year. Data from the survey also suggests that patients most often turn to the websites of the health plans or provider when researching information about care (exhibit below), consistent with the data point identified by Tebra above, in our view.

Exhibit 29
Consumer-Centric Healthcare
Top Online Resources for Provider, Location, and Service Information



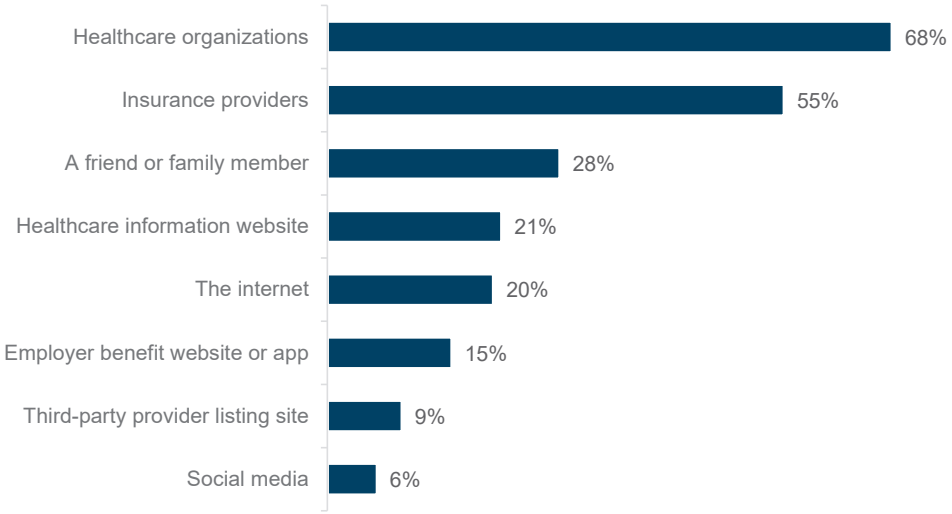
Source: Kyruus *2024 Care Access Benchmark Report*

Despite consumer interest in performing due diligence and research on healthcare services, evidenced by the above exhibit, the number of legitimate and high-quality resources that exist is still quite limited, although we believe this is improving every year. While the internet provides myriad

sources to research other major purchases (e.g., manufacturer websites, third-party "experts" and peer review sites), material on healthcare payers and providers is still limited. In addition, while there are many available websites to aid consumers in this due diligence process—and is thus a step in the right direction—many of these sites are not user friendly or do not provide enough information.

Given the questions about the quality of healthcare information on the internet, the Kyruus survey found that users tend to trust information from healthcare organizations, such as their respective websites, providers, or staff, and insurance providers most of the time, shown in the exhibit below.

Exhibit 30
Consumer-Centric Healthcare
Resources That Consumers Consider Most Trustworthy



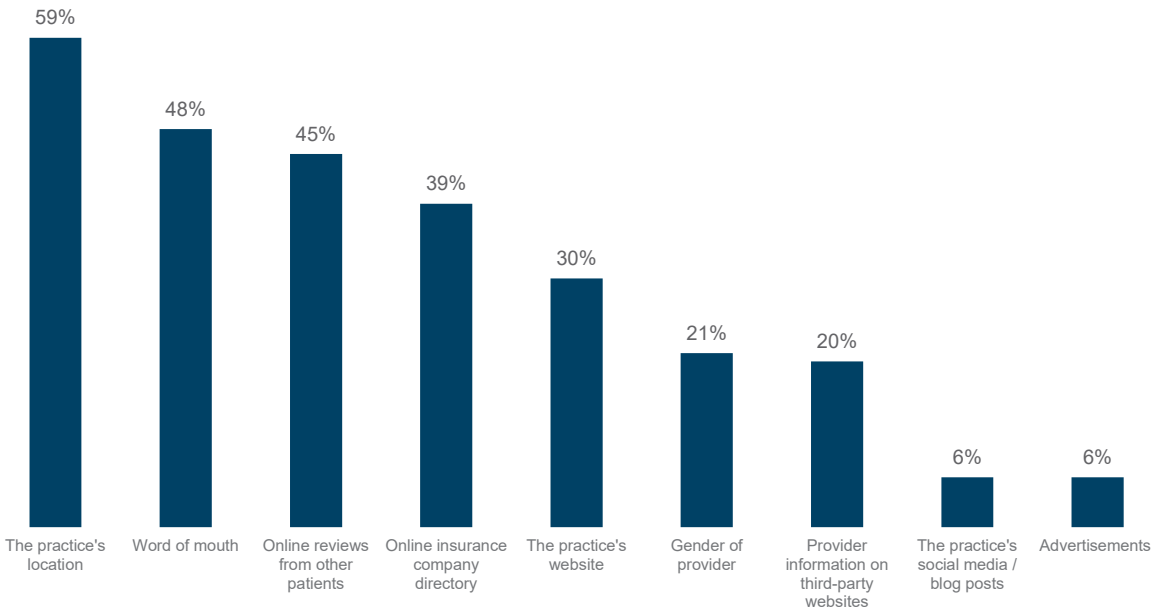
Source: Kyruus 2024 Care Access Benchmark Report

Again, we believe the quality of transparency or provider search tools remains limited, which presents a risk of creating a negative patient experience that could cause customer churn. Kyruus indicated that 34% of consumers reported an issue with inaccurate provider information in health plan transparency tools (e.g., cost estimates or search tools to find a provider). Furthermore, 30% of consumers skipped or delayed seeking care as result of finding inaccurate provider information; notably, inaccurate information led an even higher percentage (44%) of Gen Z patients to delay or skip care, speaking to the digital expectations of younger patient cohorts, in our view.

A 2024 survey published in *Health Affairs Scholar* ("Inaccuracies in provider directories persist for long periods of time") highlights not only the number of errors found in provider directories, but also the limitations for healthcare organizations in correcting those errors once they are identified. The researchers in this study fielded a follow-up secret-shopper survey focused on the Affordable Care Act (ACA) exchange marketplace in Pennsylvania. In a previous survey conducted in 2023, the researchers found 5,453 providers who were listed inaccurately (e.g., incorrect contact information or incorrectly listed as in-network with a particular insurer). In the follow-up survey, which began roughly 3.5 months after the initial work concluded, only 19% of the erroneous directory listings were removed, while about 45% of listings *continued to show at least one inaccuracy*.

Given the limitations on credible or accurate sources for provider research, consumers also turn to online patient ratings, user reviews, and word of mouth to help make healthcare decisions, similar to how consumers may browse reviews or seek recommendations for a product on Amazon. According to the report from Tebra, word of mouth and online reviews were among the top three variables contributing to healthcare decision-making.

Exhibit 31
Consumer-Centric Healthcare
Factors that Contribute to Patient's Decision When Choosing a Provider

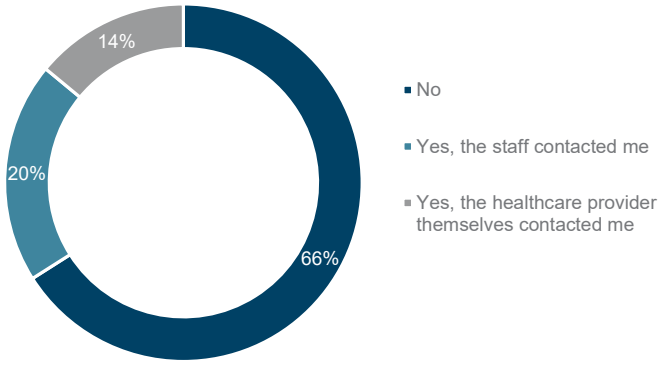


Source: Tebra 2024 Patient Perspectives Report; William Blair Equity Research

One area where we believe healthcare payers and providers lag is in soliciting and incorporating patient feedback. Seeking patient feedback creates an opportunity for healthcare organizations to differentiate their service offering by engaging with patients, to better understand their experiences, making them feel more connected to the care journey.

According to Tebra, 44% of patients report never getting asked to provide a review of their provider. Moreover, when patients provide constructive feedback or a negative review, providers are not likely to engage with those reviewers to correct potential misconceptions or learn how can they improve their service. More specific, 66% of patients indicated their practice did not contact them to address concerns brought up in a negative review (exhibit below).

Exhibit 32
Consumer-Centric Healthcare
Did the Practice Contact You to Address Concerns?



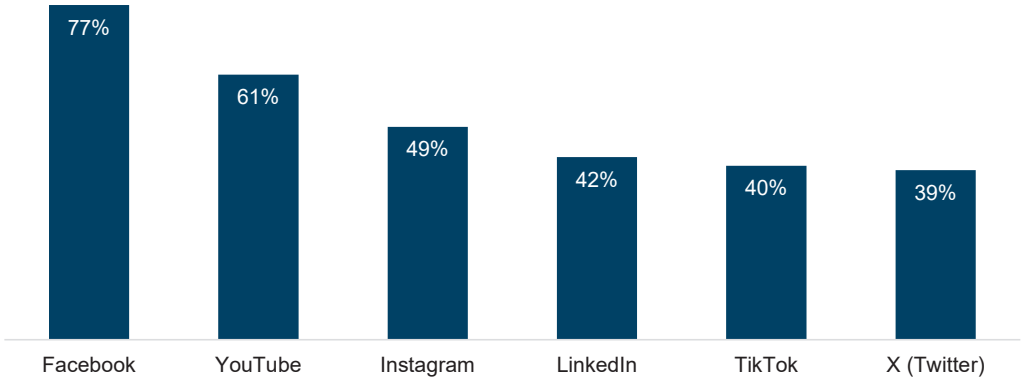
Source: Tebra 2024 Patient Perspectives Report; William Blair Equity Research

This could have a direct negative impact on practice volumes, as we believe patients are likely to switch providers if their expectations are not being met; at the same time, collecting and responding to feedback from patients to understand their needs could be an opportunity to retain them (or bring them back into the system), as Tebra's survey suggests nearly ***two-thirds of dissatisfied patients stated they would go back to a practice if their concerns were addressed after leaving feedback.*** We believe providers are missing an opportunity to gather valuable insights from their customers, and those negative reviews are being provided on platforms where prospective patients will likely see them when evaluating their care options.

Therefore, when providers are considering their web presence, they must think about all channels that patients may engage with, not just the properties managed by the practice organizations. In particular, the Kyruus *Care Access* report indicated that more than half (52%) of patients consult three or more online sources when searching for care.

Furthermore, 20% of consumers, according to the survey, reported using social media as part of their search process. Within this category, Kyruus reported that essentially at least 40% of respondents used one of six different applications as part of their online search (exhibit below). This highlights the need for healthcare providers to be aware of their brand presence across many digital channels.

Exhibit 33
Consumer-Centric Healthcare
Social Media Channels Consumers Use When Searching For Care



Source: Tebra 2024 Patient Perspectives Report; William Blair Equity Research

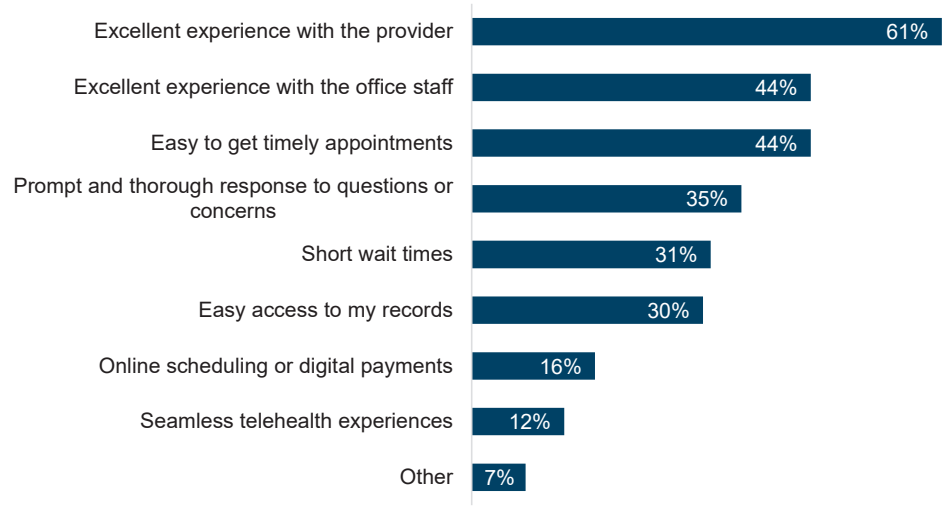
Online Accessibility and Convenience Remain Highly Demanded

While it is evident that healthcare websites, especially payer and provider websites, still have room for improvement, we believe there has been a significant focus in recent years on smaller, more strategic initiatives such as patient outreach, online scheduling, and messaging. In our view, these enhancements were made to keep pace with an increasingly technology-focused consumer.

A recent J.D. Power survey indicated that more than 40% of insured adults reported an issue with their carrier's website or application, underscoring the magnitude of the technical deficiency problem with these tools. According to the report, healthcare lags not only other consumer-driven industries (e.g., retail), but also other insurance providers, such as property and casualty (P&C) insurers.

The survey from Tebra highlights the importance of accessibility and overall experience in driving patient loyalty to a particular practice. As shown in the below exhibit, an excellent experience was by far the most cited reason for why a patient saw a provider multiple times. Other important variables for patients include timely appointments, the experience with office staff, and prompt responses to questions.

Exhibits 34
Consumer-Centric Healthcare
What Drives Patient Loyalty



Source: Tebra 2024 Patient Perspectives Report; William Blair Equity Research

Patient portals are one of the most common digital offerings used by providers to drive access for consumers. Patients use these portals for many services, but according to Tebra, the most common use-cases cited by patients include accessing medical records (70% of patients indicated this is how they use their portal), communicating with clinicians and staff (62%), and booking appointments (55%). When communicating with healthcare practices, patients expect prompt responses, which we believe is not currently met in the marketplace. According to Tebra, 91% of patients expect a response within 4 and 24 hours. At the same time, nearly a quarter of patients have no communication at all with their providers through portals.

We view these tools and services almost as requisites rather than differentiators, especially as nontraditional players enter the market from other sectors. We further expect these factors to grow in importance for patients and providers over the coming years, especially as the younger generations demand enhanced convenience, versus their older, less digitally focused parents.

One challenge for consumer-centric care is that healthcare stakeholders want to proactively and frequently engage with patients, but healthcare is often not top of mind for patients unless there is a specific episode of care. According to PwC's *2024 US Healthcare Consumer Insights and Engagement Survey*, 65% of patients indicate they do not seek care until there is an urgent need. In other words, we believe healthcare is not likely to be at the forefront of a patient's daily life unless there is a specific need for care. Despite this challenge, we believe this presents an opportunity for proactive and meaningful engagement with patients to maintain mind share, such that a provider is best positioned to capture that volume when the need for a visit arises.

Again, access, convenience, and high-quality service are key variables that patients will consider when selecting care providers. ZocDoc's *2023 What Patients Want* report shows the importance of timely care options, as ***nearly half of all appointments booked through ZocDoc took place within four days***. With this in mind, we continue to see providers rely on telehealth capabilities to supplement traditional care delivery and increase access to care. While telehealth utilization initially spiked during the COVID-19 lockdowns and has since normalized, we believe it remains an important channel as a key care delivery vehicle, especially for certain specialties, such as behavioral health.

We believe we have reached a steady state in terms of the mix between digital and in-person, and importantly, we believe patients continue to express demand for virtual care options because of the flexibility and convenience of these services. Tebra's report suggests that about 30% of patients engaged in a telehealth consultation in the last year, which is a similar number as reported in the prior-year analysis.

Furthermore, according to this same report, more than half of patients (53%) prefer virtual appointments for follow-ups and check-in appointments that do not require a physical exam. At the same time, 47% of patients do not prefer virtual, thus emphasizing the need for providers to offer omnichannel services that reach the needs of all patients.

There is also evidence, in our view, that simply offering virtual visits in tandem with traditional healthcare services garners patient loyalty and drives better care volumes versus providers that rely on only one care modality. According to ZocDoc, providers offering both digital and in-person care delivery receive 217% more bookings than virtual-only providers. In our view, this shows the importance of offering a flexible experience for consumers to reach them on their terms.

Patient Engagement Also Remains a Key Factor for Driving High-Quality Care

Payers and providers are also increasingly focusing on patient engagement solutions, as higher-touch relationships often help improve the patient experience, reduce costs, and improve health outcomes by encouraging preventive care.

We believe that despite recent advancements and innovation in the market, the state of patient engagement adoption is relatively limited across the sector today. For example, according to the inaugural *Trends in Patient Communications* report from Artera, many healthcare providers use basic text messaging to connect with patients, but patients are often confused or frustrated by these interactions because of incomplete or limited information. Specifically, 75% of patients reported that their text exchanges with providers were simplistic, and less than 25% indicated that they can receive responses to questions from providers through texts.

In other words, communication between patient and provider is often a broken exchange, where the patient is left with the responsibility to complete a task, and we believe this leads to a negative experience for patients. The Artera survey found that nearly 70% of patients are frustrated that they cannot engage in "conversational texting" with providers. We believe this failure to adequately engage patients can often mean tasks go unfilled by the patient or get carried out through a different provider or channel, creating revenue leakage for the organization and potentially leading to negative patient outcomes.

In our view, patients want communication with their healthcare services providers that is streamlined, convenient, and interactive. That is challenging in the current market environment for healthcare IT (HIT), as the average large health system has 11 deployments of HIT vendors, according to the Artera survey. This leads to a fragmented and inconsistent patient experience across the different entry points for a large healthcare delivery system.

Ultimately, we believe this presents an opportunity for providers to consolidate spending into best-of-breed enterprise platforms that can support a consistent patient experience at scale, particularly in the key solution areas that matter most to patients.

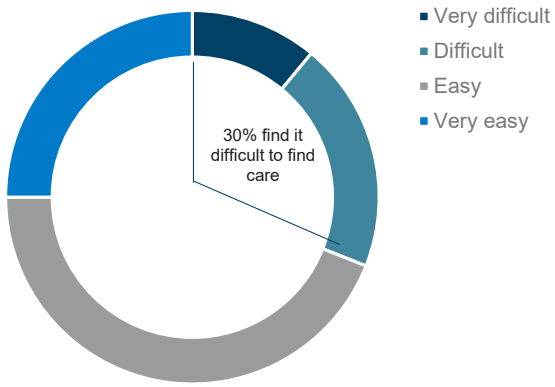
For example, according to the aforementioned Tebra survey, patients are particularly willing to embrace digital solutions for specific health interactions: 69% of patients would prefer digital appointment reminders, 68% prefer digital registration forms, and 64% prefer to digitally schedule an appointment. Overall, 92% of patients indicated that they would fill out registration online before an appointment.

As providers consider their integrated digital strategy, it is imperative that they segment the market and consider preferences across different patient cohorts. For example, PwC's 2024 *U.S. Healthcare Consumer Insights and Engagement Survey* found that 39% and 33% of Gen Z and millennials, respectively, would postpone a healthcare encounter, compared with only 18% of baby boomers.

We believe this could reflect a higher prevalence of chronic disease in the baby boomer population, implying less discretionary utilization than with younger generations. It could also be the case that the baby boomer generation is simply more loyal to their existing providers. In either case, we believe this presents a compelling data point for providers to consider the different utilization patterns or preferences across their patient populations.

Furthermore, the report from PwC suggests that nearly 30% of patients do not find it easy to get care. This, in our view, presents a compelling opportunity for providers to engage with patients in a meaningful way to educate them and drive appropriate care utilization, when needed.

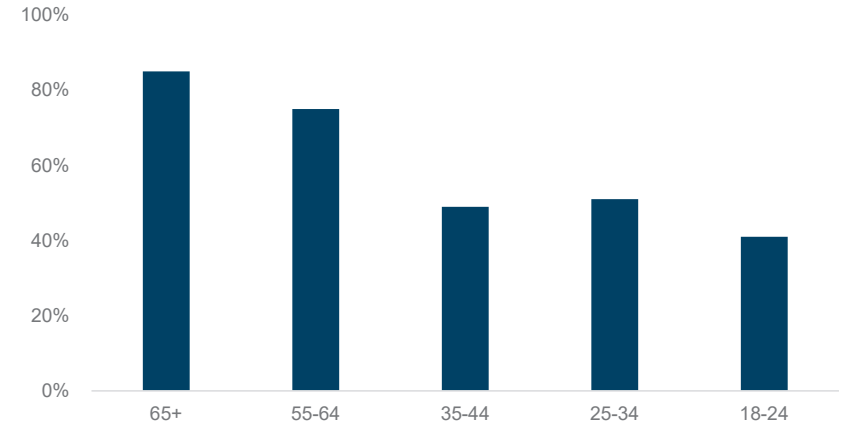
Exhibit 35
Consumer-Centric Healthcare
How Difficult Is It to Find Care?



Source: PwC; William Blair Equity Research

Furthermore, there are varying levels of trust for clinicians across different age groupings. As shown in the below exhibit, patients aged 55 and older have much higher levels of trust than younger patients. We believe this translates into younger patients relying on internet searches or alternative sources (e.g., social media) when seeking healthcare information, as discussed above. But again, we believe this points to the importance of personalized engagement using the right channel to match with patient preferences.

Exhibit 36
Consumer-Centric Healthcare
Varying Levels of Trust in Doctors by Age



Source: PwC; William Blair Equity Research

Thus, in an era of consumer-driven healthcare, consumers are beginning to expect the same experiences they receive from other areas of consumption. For healthcare providers and payers to make more meaningful connections with their patients, a continued focus on, and investment in, patient engagement and the customer experience will be critical to drive high-quality care and maintain and grow market share.

In our view, UnitedHealth Group's Find Care and Costs tool is a solid example of tools being deployed by leading healthcare companies to drive patient engagement and move toward a consumer-centric future. This tool, supported by artificial intelligence, is used by patients to find in-network doctors; using AI, UnitedHealth is able to provide personalized information for patients based on their coverage and benefits package. We believe the personalization is a key differentiating factor and unique in the marketplace, given UnitedHealth's scale.

Retailers and Nontraditional Providers Drive Consumerism in Healthcare
As discussed in the introduction of this report, retailers initially made a push into healthcare services in recent years, making investments in either the primary care setting or technology advancements (or a combination of both). But again, in 2024, there were multiple examples of retailers pulling back from healthcare services investments.

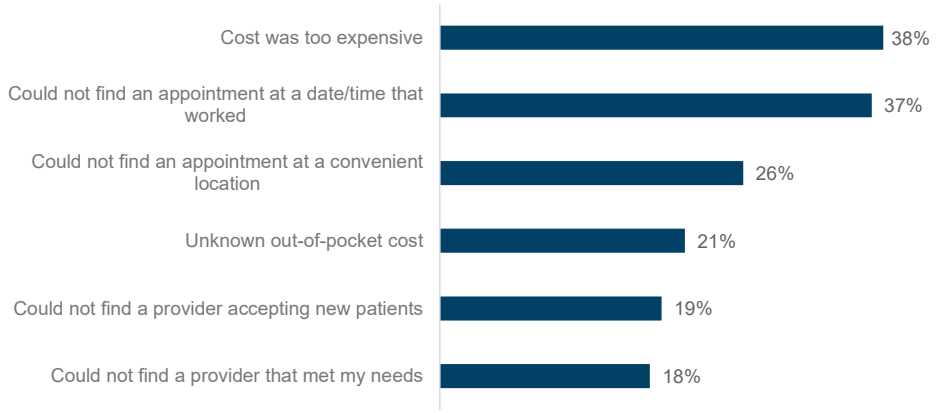
Walmart announced it would close all retail health centers, Walgreens has announced plans to shutter some 160 VillageMD clinics (and recent reports suggest the company is exploring a private equity takeout), and Dollar General backed off a pilot program with DocGo, a leading provider of mobile healthcare services.

Still, ***we believe the threat of nontraditional providers, including retailers, investing in healthcare remains, creating pressure on incumbent providers to embrace consumerism or risk losing share.*** In particular, we believe Amazon remains heavily invested in growing its healthcare presence, expanding on the company's 2023 acquisition of One Medical. For example, Amazon recently introduced cash pay virtual care appointments, called One Medical Pay-per-Visit. The service is marketed to connect patients quickly to a physician or nurse practitioner for relatively simple episodes of care, such as a sinus infection or a urinary tract infection (UTI). Notably, the service is offered with a simple cash pay model of $29 per messaging visit and $49 per video visit.

We have long held the belief that retailer investment in healthcare delivery was based on the thesis that there was an opportunity to bring convenience and access for patients (something that is achieved with Amazon's cash pay offering).

Data from the Kyruus *Care Access* report speaks to patients' expectations for convenience and access, in our view. As shown in the below exhibit, appointment availability and location are among the top-three reasons reported for why a consumer would delay and skip care. ***This same report also found that 85% of surveyed consumers stated that appointment availability is very important when selecting care.***

Exhibit 37
Consumer-Centric Healthcare
Reasons Why Consumers Skip or Delay Care



Source: Kyruus *2024 Care Access Benchmark Report*

With this in mind, we continue to see significant investment by providers in outpatient settings (e.g., ambulatory surgery centers or urgent care clinics), which we view as more convenient to access for patients than a traditional acute-care facility. According to a 2024 report published by Definitive Healthcare, the retail health market is expected to grow at a compound annual rate of between roughly 11% and 12.5% between 2023 and 2030.

This market is dominated by CVS Health with the MinuteClinic facilities. Definitive Healthcare's analysis suggests that CVS holds roughly 59% market share. Kroger also maintains a large retail clinic presence with an estimated 13% share. In some markets, retailers partner with traditional providers through co-branded clinics (e.g., Advocate Health and Target). In our view, this partnership model is positive for both parties; retailers can benefit from the incumbent's payer contracting experience, staffing expertise, and brand equity to drive more efficient customer acquisition, while incumbents can position clinics in more convenient locations (e.g., attached to a traditional retail storefront).

A recent report from Bain & Company (*The Future of Primary Care: Traditional and Nontraditional Models Continue to Evolve*) provides an outlook for the future of care delivery, including a mix shift toward nontraditional providers. The punchline, in our view, is that Bain expects roughly *30% of primary care services in 2030 to be delivered by nontraditional providers*.

This report reflects an updated analysis from Bain regarding its 2030 forecast. In the update, the forecast now calls for a smaller market share of primary care lives attributable to retailers relative to the original forecast; however, Bain's work suggests even greater share gains from advanced

primary care models and payer-owned entities. In other words, while there has been some shift in the market as retailers have scaled back their healthcare investment outlook, we believe there remains considerable pressure from nontraditional players that will bring the consumer-centric revolution to healthcare, and thus incumbent providers must act today to maintain their market positions going forward.

Perhaps the clearest sign that there has been a marked shift to embrace consumerism in recent years has been a notable uptick in providers leveraging customer relationship management (CRM) systems. As highlighted in a recent *Modern Healthcare* (*MH*) article (*Salesforce vs. Epic: The fight for CRM programs*), both Salesforce and Epic are seeking to garner traction with providers for CRM software. According to the article, "Health systems increasingly view CRM products as critical to adding customers while deepening their relationship with existing ones."

Salesforce has long pursued relationships with healthcare organizations across a range of services, including benefits verification and appointments booking, and the company has recently secured wins with leading healthcare organizations for CRM software.

Given its presence as the clear market share leader for hospital electronic health records, Epic is well positioned to capture additional wallet share with existing clients through ancillary services, including a CRM product known as Cheers. According to *MH*, about half of Epic's EHR client base uses the company's contact management tool, which provides patient information to staff to enhance outbound engagement. Moreover, *MH* states that about a quarter of Epic's clients are using a product designed to enhance marketing campaigns.

In our view, this will remain a compelling area of innovation and growth as providers seek best-of-breed partners to provide solutions that help them better understand and engage with consumers.

Lastly, beyond the care delivery options available to patients, we continue see further signs of traditional payers and providers investing in novel offerings to better position themselves in the mind of consumers more broadly, which we believe is imperative to meet patient demand.

One example of this is traditional healthcare companies investing in media and other digital tools to better engage with patients. As highlighted in a recent analysis from McKinsey & Company, "a few leading healthcare organizations are actively participating in the nascent health media market (a natural extension of a broader retail media trend)." This investment includes health systems developing their own media content for patients and even incorporating advertisements (i.e., sponsored content) into their owned media channels.

For example, Cleveland Clinic offers an extensive library of content about diseases and conditions on its website, published alongside consumer-targeted ads. Mayo Clinic now sells over the counter (OTC) health products directly to patients and provides sponsored content about health conditions or general healthy living. Perhaps the most innovative approach to media strategies, in our view, is Northwell Health, which is launching an in-house studio to develop media content.

The Bottom Line

We have gathered myriad data points over the past decade that demonstrate an increasing desire among consumers to help better control costs and engage in their healthcare decisions via access to more information (including real-time pricing data), as well as to seek more convenience and value in their healthcare decisions. Moreover, given the growing prevalence of HDHPs and the likely movement to more defined-contribution benefits in the near future promoting greater consumerism, we believe those providers that offer information transparency and engage with existing and prospective patients in an easy-to-access, convenient way are positioned to gain market share.

We also continue to believe that access to this information will drive consumers to more cost-effective and convenient care delivery vehicles (narrow networks, telehealth resources, and urgent care/retail clinics), and empower them to become more active in their own care management activities.

Factor Five: Greater Use of HCIT Will Enable the Consumer-Centric Healthcare Revolution

The last facet of our consumer-centric healthcare thesis is that greater HCIT utilization will be driven by a new paradigm of digitally savvy patients, who continue to seek a better overall healthcare experience. Consumers are increasingly bearing increased financial responsibility for their cost of care and have responded by expecting a more efficient healthcare experience that coincides with other areas of their lives (e.g., retail and e-commerce).

In turn, we believe this is driving demand for healthcare IT solutions that help enable this reality. The COVID-19 pandemic meaningfully accelerated provider (and consumer) demand for consumer-centric healthcare IT solutions throughout 2021 and 2022, pushing solutions such as digital access, telehealth, and patient-facing tools further into the mainstream. In 2023, the market experienced a moderation in demand for, and use of, healthcare IT solutions across many value propositions (e.g., telemedicine, data, and analytics), in effect reflecting an incremental shift back toward legacy healthcare workflows.

We attribute this to some combination of normalizing care utilization patterns (e.g., a shift from virtual care back toward in-person care delivery), labor and supply chain expense headwinds that hindered health systems and negatively impacted budgets, and—perhaps most importantly—broader economic uncertainty in the marketplace due to rising interest rates and elevated inflation. During this period, we believe purchasers of HCIT solutions have increased the level of scrutiny on the outcomes and return on investment (ROI) of HCIT investments, putting tremendous pressure on HCIT vendors to demonstrate their value or risk losing customer relationships.

We believe many of these market headwinds, including labor and supply costs and the broader economic climate, normalized in 2024, creating an opportunity for resurgence in demand for HCIT solutions. According to a joint report from KLAS Research and Bain & Company (*2024 Healthcare IT Spending*), 75% of surveyed payer and provider executives indicated their organizations have increased IT investments over the past year in 2024. Still, the healthcare marketplace remains as challenging and competitive as ever, with several key pressure points including elevated utilization for Medicare and Medicaid programs, record healthcare cost trends for self-insured employers, and structurally low operating margins for providers.

Therefore, we continue to believe that consumer-centric technologies are an investment that healthcare organizations can and should deploy *today* to drive positive patient experiences and thereby increase volumes and engagement. This is critical, in our view, as providers seek to retain (and grow) market share despite an influx of nontraditional, retail-oriented players into the market.

Here, we believe there is a fierce battle to earn or maintain mindshare and wallet share with patients. According to Tebra's *Patient Perspective report*, for example***, nearly 50% of patients said they have left a practice due to poor experience; moreover, 86% reported they would only give up to two chances after a poor experience with their provider, meaning patients have high expectations that must be met by healthcare organizations.***

Simply put, ***we believe investment dollars will continue to flow toward the right solutions that meet patient needs, even if there is greater scrutiny on those decisions given current market conditions.***

For example—and as discussed in the "Factor Four" section above—online booking and virtual visits can bring immediate value to the system. Consequently, we believe that healthcare organizations that swiftly respond to patients' changing preferences via relevant tech investments will have a significant competitive advantage in the ongoing consumer-centric revolution.

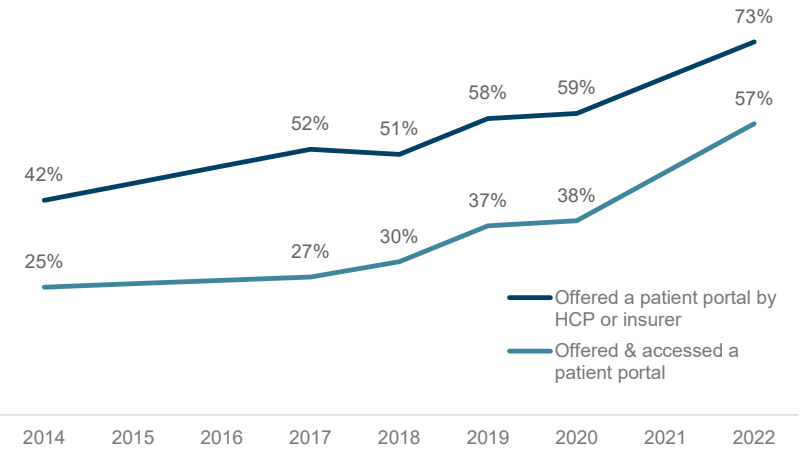
We also believe this trend will only be further magnified by the retail experiences from companies like Amazon as they continue to push further into the healthcare market. Thus, in the final section of our 2025 *Consumer-Centric Healthcare* report, we provide a brief overview of recent data relevant to the adoption of HCIT in the healthcare market.

The Time Is Now for Legacy Operators to Invest in Consumerism Strategies

In many ways, 2024 marked a new era for consumer-centric healthcare, as payers and providers react to an evolving and ever-challenging marketplace. As alluded to above, the pandemic had a meaningful impact on the adoption of consumer-centric healthcare IT solutions, but market conditions have caused headwinds and tailwinds to the adoption of these tools. We agree with the authors in Rock Health's annual *Consumer Insights Survey* who stated, "virtual care is shifting from pandemic-responsiveness to market- and consumer- responsiveness." In our view, that sentiment applies to a range of consumer engagement and digital health value propositions across healthcare, beyond virtual care, and reflects the new market environment.

Over the past decade or so, one digital health solution that grew rapidly was patient portals, or other mobile applications that give patients access to their EHR. Nearly all acute-care hospitals, and most office-based physicians, have an EHR system that allows patients to view their information online (typically through a web-based portal or app). As shown in the below exhibit, during the pandemic there was a meaningful uptick in both the availability of portals to patients and the percentage of patients who accessed their portal.

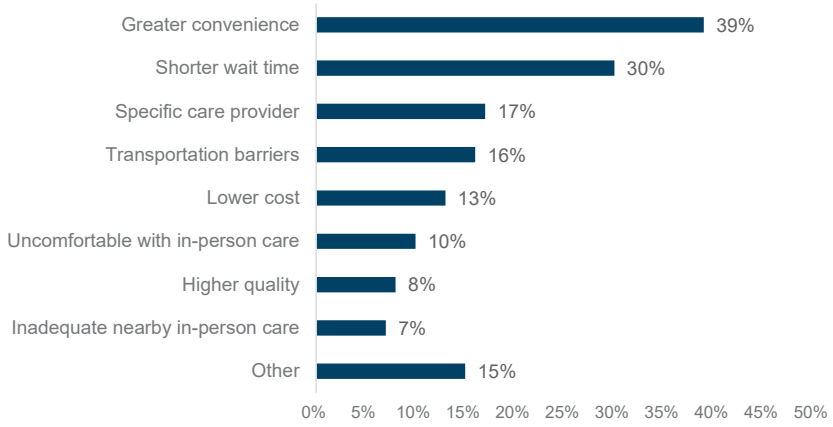
Exhibit 38
Consumer-Centric Healthcare
Availability and Access of Online Patient Portals



Source: HealthIT.gov; William Blair Equity Research

Similarly, virtual care is now ubiquitous in healthcare, and we believe consumers are attracted to the convenience of this solution; however, simply offering virtual care is not enough for providers to maintain a competitive position in the marketplace, in our view. Overall, consumers appear to be attracted to the accessibility of virtual care, identifying convenience, shorter wait times, and the ability to access a particular clinician who might not otherwise be available as key reasons for choosing virtual over traditional care (exhibit below).

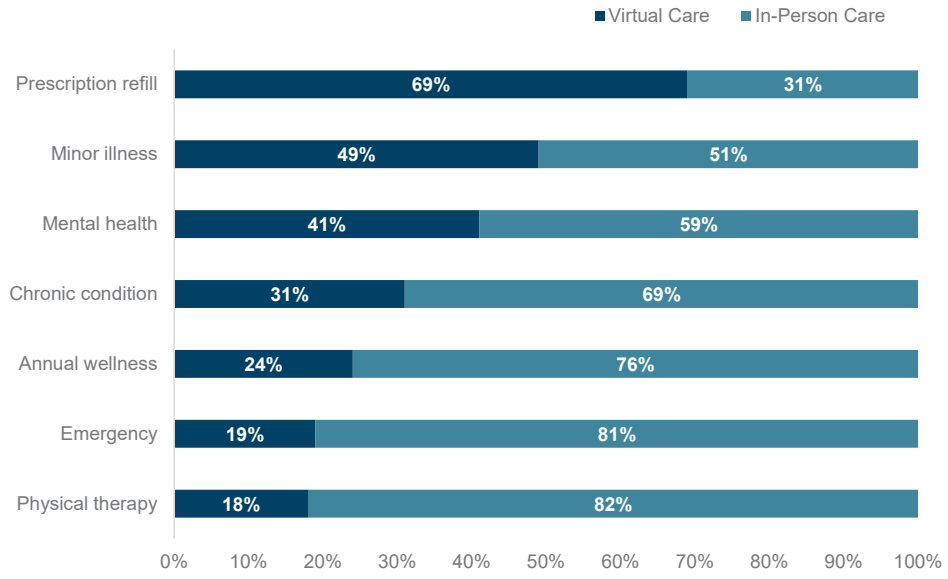
Exhibit 39
Consumer-Centric Healthcare
Reasons for Choosing Virtual vs. In-Person Care



Source: Rock Health; William Blair Equity Research

At the same time, there is significant variation regarding consumer preferences between virtual and in-person care for various service offerings. ***In our view, this highlights the need for providers to truly understand patient preferences*** and curate their offerings based on demand. For instance, prescription refills are the healthcare service that patients prefer to conduct virtually (69% prefer virtual versus 31% in-person care); conversely, only 18% of patients prefer virtual care for physical therapy.

Exhibit 40
Consumer-Centric Healthcare
Patient Preference Between Virtual and In-Person Care



Source: Rock Health; William Blair Equity Research

Rock Health's survey found that prescription refills and mental health were ***the only two services where patient preference for virtual care increased from 2022 to 2023.*** For all other services, including minor illness, chronic conditions, annual wellness, emergency services, and physical therapy, Rock Health found a mix shift of consumer preferences away from virtual care toward in-person care.

It is logical that consumers would prefer virtual for prescription refills given the transactional nature of the encounter and the fact that no physical exam is typically needed; we also find it logical that preferences continue to shift toward virtual care for mental health, which we believe remains the service line across all of healthcare with the highest mix of virtual care given the need for access to quality providers.

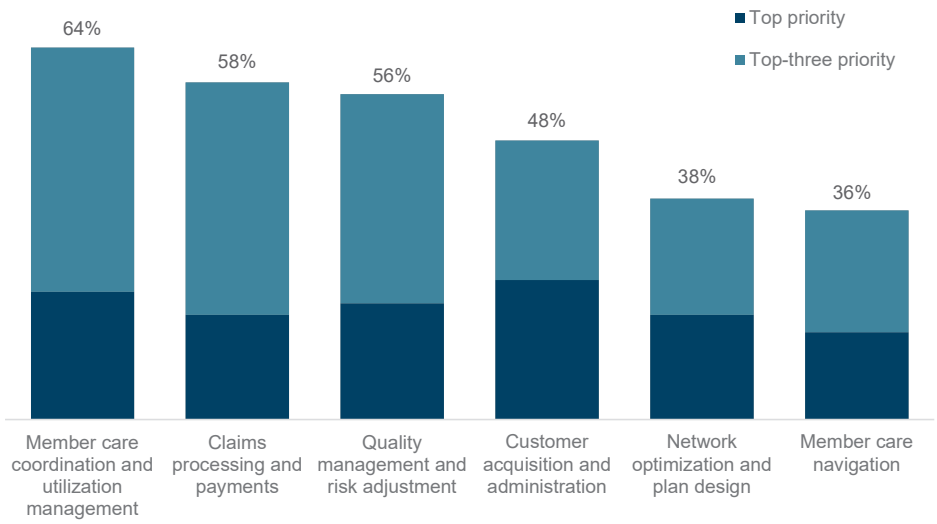
Doximity's December 2024 *State of Telemedicine Report* speaks further about the role of telehealth to support a modern, consumer-centric healthcare experience. Overall, Doximity's report found that ***telemedicine has increased access to care and improved communication between patients and providers.*** More specific, 84% of physician respondents highlighted virtual care's value in improving continuity of care with patients, and 83% of physicians would like it to remain a permanent part of their practice. In our view, one reason that physicians likely would prefer virtual care to remain a core part of their practice is the connection to driving patient satisfaction; more than 80% of physicians (among those who use telehealth) said it has improved patients' satisfaction with their practice.

The connection between virtual care and patient satisfaction was reinforced in a patient survey as well. Ninety-five percent of surveyed patients with a telemedicine visit in the past year said it improved their care satisfaction, while 96% of patients reported equivalent or better care delivery.

We believe the investments made over the last several years by healthcare organizations are bearing fruit in driving a more personalized care journey for patients. According to EY's *Health Pulse Survey*, roughly 70% of health insurance executives agreed that ***patient healthcare experiences have become much more personalized in recent years.*** More than half (55%) said that mobile apps have played a key role in driving this personalization, while roughly half of surveyed executives (48%) believe portals and telehealth are driving more personalization in healthcare.

Given the positive returns associated with these investments, we are not surprised that payers continue to prioritize consumer-centric investments alongside enhancements to administrative technology infrastructure in areas like claims processing. According to KLAS Research and Bain, member care coordination is the top technology investment priority for payers; customer acquisition and administration is also among the key priorities, along with member care navigation. We view each of these value propositions as enabling a better consumer experience.

Exhibit 41
Consumer-Centric Healthcare
Top-Three HCIT Investment Priorities Cited by Payers



Source: KLAS Research and Bain & Company; William Blair Equity Research

Despite this progress in recent years, several opportunities remain to further improve the patient experience, in our view; for example, the EY report found that 63% of health insurance executives stated ***quicker access to health information data would make members feel even more empowered or invested in healthcare.***

Similarly, many patients have identified areas that are ripe for innovation where their experience falls short, especially when compared with the consumer experience in other industries. As shown in the below exhibit, based on the 2024 *Patient Confidence Index* from PatientPoint, filling out paperwork was cited by patients as the biggest area that healthcare lags behind other industries.

Exhibit 42
Consumer-Centric Healthcare
What Makes You Feel Like Healthcare Lags Other Industries Technologically?

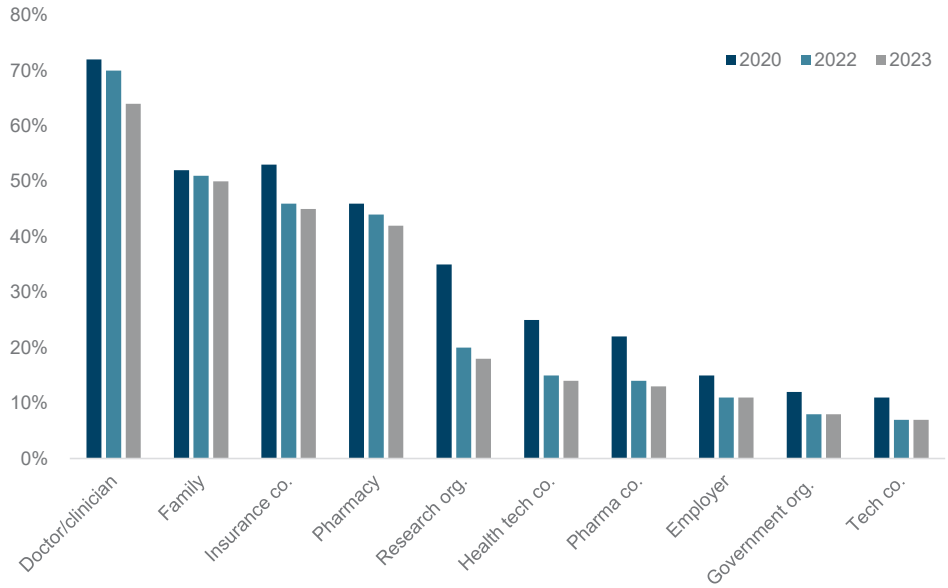
Having to fill out the same paperwork over and over again	54%
Difficulties scheduling appointments	27%
Having to wait extended periods of time before getting a prescription filled	26%
Receiving paper bills	15%
Not being able to share health data (such as the heart rate measured on a smartwatch or other wearable device)	13%
Other	3%
None of the above	20%

Source: PatientPoint; William Blair Equity Research

As providers and patients move further down the HCIT adoption curve to further strive toward consumer-centric care delivery, we believe it will be imperative to maintain trust with patients regarding stewardship and protection of their health data. In other words, we believe trust is paramount to get patients to buy in and use digital health tools.

Patients tend to be selective with the organizations with which they share data, and this trust has eroded modestly in recent years (exhibit below). The consumer survey from Rock Health found that the willingness of patients to share data either stayed the same or decreased year-over-year in 2023 ***across every stakeholder in healthcare.*** Notably, this data does not reflect any impact from the large-scale cyberattack of Change Healthcare in early 2024, which compromised the health information of about 100 million Americans.

Exhibit 43
Consumer-Centric Healthcare
Patient's Willingness to Share Health Data



Source: Rock Health; William Blair Equity Research

Following the Change Healthcare attack, we also believe healthcare organizations are increasingly prioritizing cybersecurity and privacy to maintain consumer trust across the HCIT landscape. The joint report from KLAS Research and Bain indicated that roughly 70% of payer and provider organizations in the survey were impacted by the event. Thus, it is no surprise, in our view, that 55% of insurance executives said their organization is investing more in cybersecurity solutions in 2024 than 2023, according to the EY *Health Pulse* report.

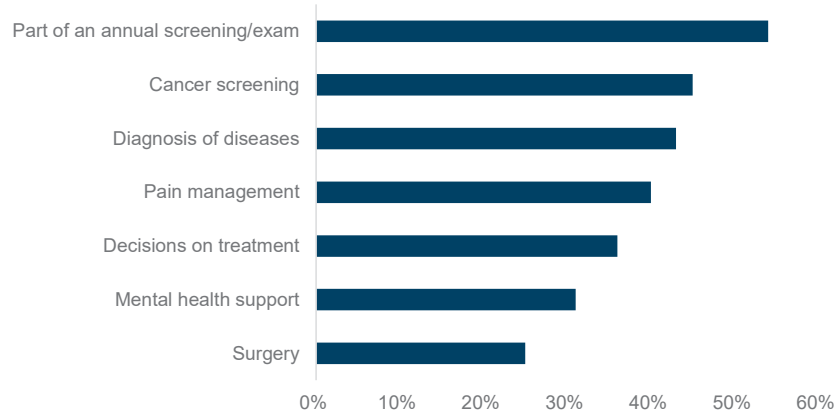
With data security and transparency in mind, artificial intelligence (AI) presents both promises and challenges for innovating on the consumer experience in healthcare. In particular, we believe that patients and providers are both somewhat skeptical of clinical use-cases for AI (e.g., clinical decision support tools), where AI could be perceived as superseding clinicians rather than assisting them. Salesforce's *Pulse of the Patient Snapshot* noted that nearly 70% of patients are "uncomfortable with healthcare companies using AI to diagnose them."

Conversely, we believe patients may be more receptive to AI solutions used for more administrative tasks, such as assisting with registration forms or scheduling appointments. In our view, one of the biggest pain points for consumers in healthcare is the lack of transparency on pricing for healthcare services and understanding insurance coverage. The Salesforce report suggests this could be an opportunity to further leverage AI; more than half of consumers in that study indicated comfort with AI to estimate medical costs or explain insurance coverage.

As generative AI (GenAI) has entered the mainstream through the proliferation of tools like ChatGPT and Google's Gemini, consumers are increasingly aware of the capabilities of these solutions to transform all aspects of life, including healthcare. According to a 2024 survey commissioned by Wolters Kluwer Health, more than half of Americans believe GenAI will be embedded in healthcare interactions by 2028; however, respondents indicated mixed feelings about GenAI in healthcare, which we believe likely reflects some skepticism over transparency and data security.

According to the survey, 44% of Americans expressed concern about GenAI use-cases in healthcare, while 36% indicated they were curious about it. Overall, nearly half of all consumers believe GenAI is ready to be used for healthcare applications today; however, patients' level of readiness varies across different healthcare encounters (exhibit below).

Exhibit 44
Consumer-Centric Healthcare
Net Readiness for GenAI Use-Cases in Healthcare

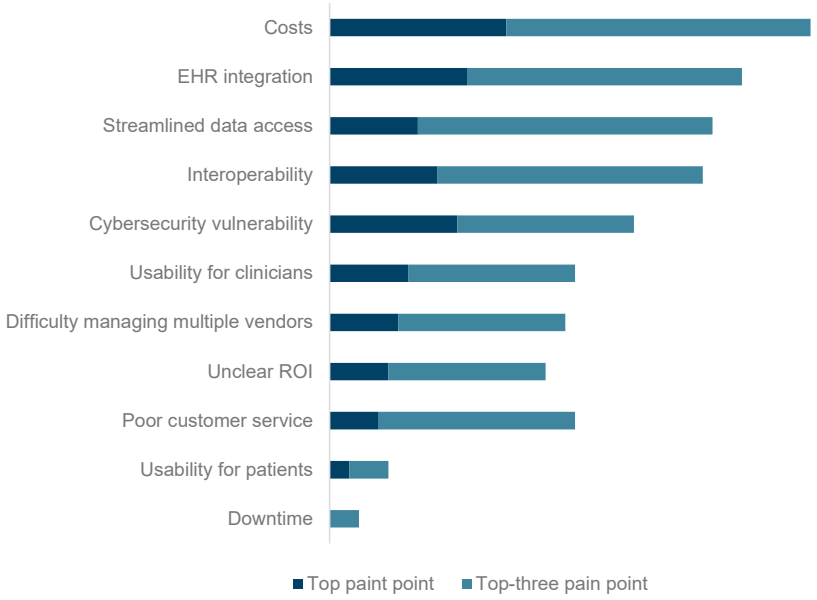


Source: Wolters Kluwer Healthcare; William Blair Equity Research

Ultimately, we believe that to support deployment of AI across HCIT use-cases, interoperability and integration with electronic health records will remain an important hurdle for the industry. The administrative burden has long been cited as a key cause of physician burnout, given the demands on their time for tasks that do not directly contribute to patient care (e.g., post-visit documentation).

Thus, as healthcare organizations move further toward adopting consumer-centric healthcare workflows, it is imperative that those tools integrate with legacy systems, like EHRs, and mitigate any additional workflow burdens placed on providers. The report from KLAS Research and Bain indicated that EHR integration was the second biggest pain point, behind cost, that providers have with their current tech stack; data access and interoperability were also among the top pain points for providers, speaking to the need for integrated solution sets, in our view.

Exhibit 45
Consumer-Centric Healthcare
Pain Points Cited by Providers as a Top-Three Challenge in Current Tech Stack



Source: KLAS Research and Bain & Company; William Blair Equity Research

If HCIT vendors fail to adopt interoperability and integration capabilities, we believe client satisfaction with new investments will be hindered, which could ultimately limit growth for these organizations. Thus, we believe this will remain a key focal point for all stakeholders.

The Digital Disconnect: Providers Are Lagging to Meet Patient Demand

While patient engagement, RCM, and other facets of consumer-centric care that drive financial ROI remain top-of-mind for healthcare leaders, many organizations appear to be progressing only gradually toward full-scale implementation of digital health technologies. Healthcare organizations, including both payers and providers, lag other industries in terms of meeting patient expectations. According to Qualtrics' *2023 Healthcare Experience Trends* report, consumer satisfaction with both providers and payers lags the cross-industry global average by 3 percentage points and 1 percentage point, respectively.

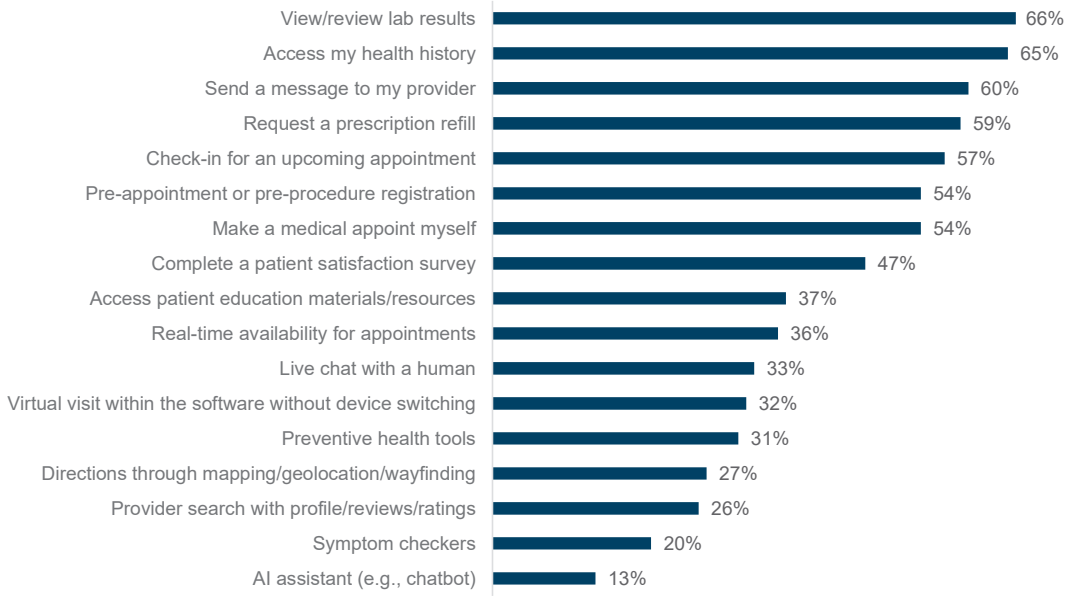
This report further ranked industries across three dimensions: consumer satisfaction, trust, and likelihood to recommend. The hospital sector was rated in the top five of all industries based on trust; however, the industry lagged on the other dimensions (satisfaction and likelihood to recommend). Interestingly, two of the sectors, online retailers and supermarkets, that also rated in the top five for consumer satisfaction are industries with nontraditional players maintaining a presence in the healthcare delivery market (e.g., Amazon, Kroger, and Walmart) and serving as a competitive threat to incumbent providers. In other words, we believe this speaks to the imperative of traditional healthcare players to invest in solutions that drive better consumer satisfaction, or they risk losing share over time.

As shown in exhibit 38, on page 56, there has been meaningful progress in adoption for solutions like patient portals. Still, these portals are typically oriented around simply reviewing medical records (an important value proposition, but limited, in our view). ***Thus, we see ample opportunities for healthcare organizations to create a broader digital ecosystem that allows consumers to engage in multiple ways, beyond just reviewing their medical record data and performing basic care management activities.*** Put differently, we believe it is imperative for health systems to offer several digital touch points to maximize convenience and experience.

Still, we believe patients are relatively unaware of many ancillary digital health solutions offered by their providers; in other words, providers are making investments that are not being fully used by their consumers, presenting a missed opportunity to enhance engagement and the patient experience.

According to data from Gozio Health (*2024 Report on Patient Preferences and Trends*), most patients are aware of basic digital tools like the ability to access lab results or health history data through the aforementioned portals; patients also appear to be well versed in using tools to request a prescription refill or check in online before an appointment. Conversely, patients are less familiar with other solutions that could improve their experience with a provider, such as chatbots, symptom checkers, provider search tools, and wayfinding (to help navigate large facilities).

Exhibit 46
Consumer-Centric Healthcare
Features Provided Digitally by Primary Care Doctor or Clinic System



Source: Gozio Health; William Blair Equity Research

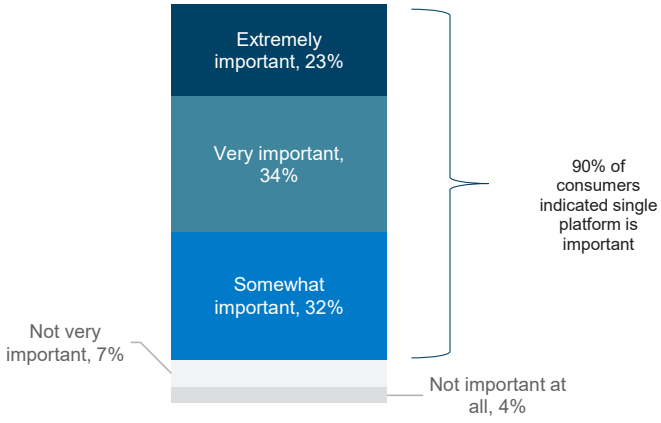
Importantly, though, we believe the next wave of innovation and investment in consumer-centric strategies will focus on integrated and streamlined user experience. According to the aforementioned report from Gozio Health, 55% of hospital chief information officers (CIOs) report using ***between 50 and 500 (or more) software systems to run their healthcare operations.*** Similarly, this report cited a separate study that found the average hospital can run as many as ***six patient apps at one time.***

This disconnected technology environment could be a function of a few factors: hospitals that grow through M&A activity and acquire facilities with disparate technology implementations, legacy (i.e., on premise) technology implementations for large-scale systems, and competitive budget priorities that limit investment in integrated, cloud-based technologies.

We alluded to the importance of EHR integrations and simplifying the experience for both patients and providers in the previous section. Regardless of the reason for disparate implementations, we believe hospitals that deploy a fragmented technology stack are not maximizing the full potential of consumer-driven strategies and providing an unnecessarily fragmented consumer experience.

As shown in the below exhibit, nearly 90% of consumers have said it is important to them to be able to manage their healthcare through a single platform, according to Gozio Health. Therefore, we believe it will be imperative to invest in tools that help consolidate data across all of these systems and present a streamlined "digital front door" experience for patients, something that we believe patients desire.

Exhibit 47
Consumer-Centric Healthcare
Desire to Manage Healthcare Through a Single Platform



Source: Gozio Health; William Blair Equity Research

As an example of integration, we again point to Phreesia's patient intake platform. The company provides a mobile platform for patients to check in, fill out forms, and pay bills; all of this is then integrated via bidirectional integration with a healthcare provider's EMR. This means that patients do not have to fill in the same information at subsequent visits, and any new information is automatically populated in the system of record for the provider enterprise.

In our view, an integrated, omnichannel digital-first strategy reflects the holy grail for a health system and should better align incumbents against the evolving competitive threats they face in the marketplace. Overall, we believe it is critical for healthcare executives to remain consistent in developing cohesive HCIT strategies to deliver consumer-centric care.

Healthcare at Home: A Remote Patient Monitoring Spotlight

As we have discussed throughout this report, consumers are beginning to take control of their own healthcare journey. Over the past few years, one subsector, remote patient monitoring (RPM), has often stood out as an example of a low-hanging fruit for consumers to be more proactive when managing their own healthcare.

RPM commonly refers to the use of connected electronic devices and tools to record health and medical data. In many use-cases, this data is then shared with a given provider at a different location—meaning patients can be in their own setting, and the data can be viewed by a doctor at a health system, for example.

In our view, RPM also will continue to support the movement of bringing care into the home, compared with the traditional acute and post-acute settings. We believe this will help providers deliver on their consumer-centric strategies as it aligns with patient preferences. According to EY's *Global Consumer Health Survey 2023,* 50% of patients reported that access to care is what they value most from the healthcare systems. RPM tools help providers deliver care outside the traditional four walls of the hospital (or physician office), thus increasing access to care and better aligning with consumers, in our view.

In a separate analysis from EY (the *Health Pulse* report), nearly 75% of health insurance executives said that wearable medical devices have both favorably impacted health monitoring and increased member engagement (thus improving the overall consumer experience, in our view). Similarly, 66% of respondents in this survey said that wearable devices and consumer health tracking have helped make healthcare experiences more personalized. The value of a patient is shared by providers as well, as EY's survey suggested that 68% of insurance executives believe their in-network providers are investing more in remote monitoring and wearables.

We believe adoption of RPM will continue, driven by consumer demand. In particular, we believe consumers are increasingly interested in a broader suite of health and wellness products, which could include RPM tools and connected devices.

According to McKinsey's *Future of Wellness* survey, 82% of U.S. consumers consider wellness a top or important priority in their everyday lives. Gen Z consumers appear to be more interested in wellness solutions than older generations, suggesting this trend will persist for years to come. According to McKinsey's report, health, sleep, nutrition, fitness, appearance, and mindfulness are all popular categories of wellness. Given this data, we believe patients would be receptive to investments by providers and payers to scale up or support RPM and other wellness tools that patients can integrate into their daily lives.

Ultimately, while we are believers in the value proposition of RPM to providers and patients, growth in this category of consumer-centric care delivery will be partly driven by reimbursement over the coming years. RPM reimbursement faces an uncertain future in the coming years.

More specific, CMS has expanded payment for RPM since 2018, adding billing codes to cover more services under Medicare fee-for-service. But the expiration of the pandemic-era Public Health Emergency (PHE) in 2023 removed certain flexibilities that made it easier for providers to adopt RPM strategies (e.g., not enforcing sanctions for waiving co-payments for RPM services). We expect regulators and policymakers to continue to hone the reimbursement policy over the coming years but acknowledge that this remains a hurdle. Still, given a strong demand environment for RPM, we believe a clearer reimbursement picture will catalyze further provider adoption over the coming years.

Shift to Value-Based Care Is Another Big Driver of Consumer-Centric Healthcare Technology
Further complicating the market landscape is the continued shift toward value-based care (VBC), which continues to progress forward as industry stakeholders and policymakers seek solutions to bend the healthcare cost curve. We believe the pandemic accelerated the need for VBC, due to the financial stress on providers, as well as challenges on consumers.

To address the former, as fees from standard visits and elective procedures declined due to cancellations and shifts in resources, providers were looking at other avenues and models to generate *recurring* revenues—thus the heightened focus on VBC. As providers are looking for greater financial stability, we believe these value-based, alternative reimbursement models actually support access to care given the alignment of financial incentives with care outcomes. It is ultimately HCIT that helps support this access to care, in our view, through services such as data analytics (to identify high-risk patient cohorts) and telemedicine (to improve access to clinicians).

Put simply, we believe VBC is a model that looks to realign the incentives between all stakeholders, while improving health outcomes for patients. Again, this is the essence of consumer-centric care delivery, in our view, and ***HCIT is mission-critical to supporting this transition.***

Overall, we believe VBC models tend to push at-risk entities toward HCIT tools that better engage patients and steer them toward more efficient care settings (telemedicine, enhanced efforts to engage patients, integrated care coordination, data to understand care gaps, etc.). This, in turn, helps make sure that care decisions are aligned with quality measures and other benchmarks that are used to determine success in these value-based contracts.

The Bottom Line
We believe the incremental progress in the usefulness of digitized workflows has been catalyzed by the pandemic, and we believe this will carry on through 2025 and beyond. Barriers to virtual care have fallen—especially in the virtual behavioral health market—business models have evolved to provide further incentive for more efficient, less variable care delivery, and consumer experience standards have increased; the combination of these factors will drive further investment in technology to achieve a consumer-centric healthcare transformation.

Summary and Investment Conclusions

We believe that the consumer-centric healthcare revolution is here and gaining steam, and we view the previously discussed developments as evidence that it continues to take hold in the U.S. market.

From a payer perspective, we expect that high-deductible plans will remain a key insurance offering over the next decade. We also believe the movement to defined-contribution health insurance plans and private exchanges may reshape the marketplace over the coming years—engaging consumers in healthcare funding decisions up front and markedly increasing demand for price and quality transparency from both payers and consumers.

From an individual perspective, we believe consumers, empowered with the necessary information and increased financial responsibility, will make more value-oriented healthcare purchasing decisions. Over the longer term, we are also hopeful that this drives a behavior change (combined with the right support systems) that can lead to sustainable healthcare gains (e.g., less obesity and smoking, more active lifestyles, better adherence to therapies, and preventive care protocols).

From a provider perspective, we believe there will be a growing focus on maximizing healthcare IT investments, such as harnessing big data and machine learning/artificial intelligence to improve patient outcomes, reducing unwarranted care deviations, improving system interoperability, and providing more consumer-centric care delivery options (e.g., patient portals, access to electronic medical records, more convenient care locations, and telehealth). We believe the providers that offer more consumer-centric healthcare will thrive over the coming years by attracting more patients.

In turn, these providers should experience superior top- and bottom-line growth, in our opinion. We also believe most leading providers are moving toward shared-savings models, where they will bear more responsibility for the total cost and quality of care delivered to their attributed patients. In this environment, we expect further investments in consumer-centric solutions, which were unprofitable under fee-for-service models.

Lastly, from a healthcare investor perspective, we believe that superior relative returns can be earned by identifying leaders in the emerging field of consumer-centric healthcare, such as those identified at the end of this report.

To further assist investors in this process, we conclude our report with a review of our key investment themes and risks associated with a more consumer-centric healthcare marketplace.

Emerging Investment Themes

Patient-centric healthcare

A primary theme of consumer-centric healthcare is that patients—not third parties, such as the government, insurance companies, or employers—are gaining more control over their healthcare decisions. A significant implication of this shift, in our view, is that healthcare providers must change to accommodate these newly empowered consumers. We believe that these changes are appearing in the form of benefits, such as more convenience for patients, more information about providers and services, and increased pricing and quality transparency. Providers also must include patient satisfaction as a key performance metric, in our view, as both reimbursement levels and market share gains will be predicated on the patient experience. In our opinion, companies that understand the need to offer these types of benefits to patients (along with the infrastructure to track outcomes and patient satisfaction) will win in this healthcare revolution.

Cost-effective healthcare

Along with patient-centricity, we believe consumer-centric healthcare leads to a more cost-effective healthcare system, in which payers (both third parties and increasingly patients themselves) choose to conduct business with the most efficient, lowest-cost healthcare providers.

As discussed in our previous reports, as healthcare costs grow at above-inflation rates once again, these payers are becoming more sensitive to cost differences among healthcare providers, and we believe the lower-cost companies (with equal quality) will win.

Significant growth potential

In our opinion, the combination of patient-focused and cost-effective healthcare will provide a much-needed solution to perhaps the single-most-pervasive challenge of today's healthcare system: *its cost.*

Until recently, employers typically absorbed these rising healthcare costs for their employees by paying high health insurance premiums. As absolute healthcare costs have reached record highs, however, employers and other payers are increasingly searching for ways to reduce costs. Again, we believe that consumer-centric companies will be the primary beneficiaries of this development, as they provide low-cost (and often higher-quality, more convenient) healthcare services.

Moreover, we believe consumer-centric healthcare has emerged, as companies are increasingly coming to the marketplace with more patient-centric business models. As investors become more comfortable with the concept (and its significant growth potential), we believe that successful consumer-driven healthcare companies—such as the ones described in this report—could earn a premium valuation.

Lastly, the U.S. healthcare market is huge, approaching 20% of GDP in the United States. Based on our belief that many of the present inefficiencies will be solved by the move toward a more market-driven industry, we believe the opportunity for consumer-centric companies will be immense.

Emerging Investment Risks

The healthcare services industry has become more cyclical

In the past, healthcare utilization generally has trended upward over time, regardless of minor fluctuations in the U.S. economy. We believe this trend has changed, as consumers have been given more decision-making and spending responsibility. In turn, we believe patients are making healthcare purchases on a more discretionary basis, especially for elective procedures. This could result in a more cyclical trend in healthcare utilization over the coming years.

Accordingly, we prefer those companies with recurring-revenue models (such as HCIT vendors with significant subscription or maintenance revenue streams or SaaS-based models) or a less discretionary procedure base, both of which help limit short-term volatility in operating results.

Government reimbursement exposure

We expect that consumer-centric companies will experience rapid growth over the coming years. At the same time, we expect CMS to continue to push government-insured lives, in both Medicare and Medicaid, toward value-based care reimbursement models and away from traditional fee-for-service (FFS) reimbursement. In isolation, this is a positive investment attribute; however, if the companies also have significant exposure to FFS government reimbursement, this can prove to be an investment risk.

Accordingly, we prefer companies with limited FFS government reimbursement exposure. Again, HCIT companies or outsourced services providers fit the bill nicely, since they have, in effect, no direct exposure to third-party payers and can help enable the transition toward value-based care.

Pricing risk

Even though consumer-centric operators generally provide lower-cost alternatives to traditional healthcare services providers, they are still subject to pricing pressure from payers (which are further consolidating and gaining scale).

In addition, as commercial payers face increased pressure to rein in premium increases, we expect that pricing pressure (or regulatory measures to control provider pricing) will become more intense over the coming years. Accordingly, we prefer companies that have strong market positions, since this typically affords them stronger negotiating leverage with commercial payers. This strong local presence should also better position operators to offer integrated care delivery and to eventually participate more actively in shared-savings models, in our view.

On the HCIT front, we prefer vendors with solutions that have clear value propositions (e.g., lower readmission rates, workflow and workforce productivity improvement, improved HCAHP scores) and a clear return on investment, as the abovementioned pressure on providers, along with increased pressure on overall utilization, will increase scrutiny of capital investments.

List of Public and Private Consumer-Centric Healthcare Companies

In exhibit 48, we highlight several operators (both publicly and privately held) that we believe are well positioned to thrive in the consumer-centric marketplace of the future.

We also direct readers to our series of quarterly *Healthcare Mosaic reports,* which provide more detailed discussions of companies that relate to each quarterly topic—for example, food-as-medicine, advanced specialty care practice models, and employer healthcare cost-reduction enablers. Following the exhibit, we provide a list of links to the *Mosaic* reports we published in 2024.

Exhibit 48
Consumer-Centric Healthcare
Consumer-Driven Healthcare Operators

Subsector	Description	Representative Companies	
Advanced Medical Practices and Value-Based Care Delivery	Innovative providers that we believe are poised to benefit given the rise of advanced medical practices.	agilon Health Aledade Alignment Healthcare Altruista Health Apollo Medical Holdings Aspire Health (a recent Anthem acquisition) Cano Health CareBridge CareMax Clover Health ConcertoHealth Curo Health Equality Health First Stop Health Humana	InnovAge Iora Health LandMark Health MDLive MDVIP Oak Street Health (CVS) One Medical (Amazon) OptumCare (a UnitedHealth subsidiary) Oscar Health Paladina Health Premier Privia Health Teladoc VillageMD Wellvana
Care transition	Providers that offer services or technology to assist with transitions in care or help reduce readmissions.	Aidin A Place for Mom Axial Exchange Cara Health CareInSync Caremerge Careport Ginger.io	Kyruus naviHealth (Optum) Netsmart Technologies OpenPlacement SCI Solutions (R1 RCM) Vivify Health Wellframe Wellsky
Clinical HCIT vendors	Clinical HCIT vendors automate and digitize the flow of clinical health information, which helps create more efficient, higher-quality, better coordinated, and more accessible care for patients.	Abridge Allscripts Healthcare Solutions, Inc. AmazingCharts.com, Inc. Aperture Aprima Medical Software, Inc. Arcadia.io athenahealth, Inc. Augmedix CareCloud Corporation Casamba Commure Credible Behavioral Health CureMD Healthcare DeepScribe DocuTAP Doximity eClinicalWorks e-MDs, Inc. Epic Systems Greenway Health HealthWyse Intermedix	LeanTaaS Madakat MatrixCare MEDHOST Meditab Software Inc. MEDITECH Mediware Information Systems Modernizing Medicine Netsmart Technologies (Allscripts) Nuance Oracle Cerner PointClickCare Praxify Qualifacts Quality Systems, Inc. (NextGen) Relias Sansoro Health Shareable Ink Corp. Suki T-System Inc. TrueBridge Wellsheet

Source: William Blair Equity Research

Exhibit 48 (cont.)
Consumer-Centric Healthcare
Consumer-Driven Healthcare Operators

Subsector	Description	Representative Companies	
Consumer-driven healthcare insurers and enablers	Consumer-driven healthcare insurers and enablers help promulgate the consumer revolution by providing the financial products, high-deductible policies, provider networks, and information tools necessary to make CDHC a reality.	Accolade	Imagine Health
		Akili Interactive	Included Health
		Aledade	Infopia USA
		Alegeus	Innovaccer
		Alere Inc.	Inovalon
		Alignment Healthcare	INSPIRIS
		Alliance HealthCare Services	Integrated Healthcare, LLC
		American Specialty Health, Inc.	Interwell Health
		Ayasdi	Jelly Vision
		BC Platforms	Limeaid
		Businessolver	Lumeris, Inc.
		bWell International, Inc.	Maestro
		CardioCom, LLC	Maxwell Health
		Carrum Health	MedApps, Inc.
		Castlight Health	MyHealthDIRECT
		Change Healthcare	National Research Corporation
		CityLife Health	NextHealth Technologies
		Clarify	Novologix, Inc.
		Collective Health	Novu
		Compass Professional Health Services	Numera
		Connections 365	Omada Health
		Connecture Inc.	One Call Medical, Inc.
		ConnectYourCare	Onlife Health
		Connextions Inc.	OptumHealth Allies (UnitedHealth Group)
		Crossover Health	OutofPocket.com
		Definity Health (Division of UnitedHealth Group)	PDS Health
		Destiny Health	Pearl Health
		DiaTri	PeraHealth
		Docent Health	Pharos Innovations
		eDocAmerica	Phytel (Division of IBM)
		eLuminate Health	PicassoMD
		Emmi (Wolters Kluwers)	Pieces Tech
		Employer Direct Haelthcare	Plansource
		Empyrean	Pokitdok
		EngagePoint, Inc.	Privia Health
		Enli Health Intelligence	Quantum Health
		ePatientFinder	RedBrick Health Corporation
		Evidation Health	Reliq Health Technologies, Inc.
		Evive	RxAnte
		Evolent Health	Sharecare
		ExperienceLab	SHL Telemedicine
		Faircare	Softheon
		Fidelis SecureCare	Solutionreach
		Flatiron Health	Stayhealthy Inc.
		Fora Care, Inc.	StayWell
		Get Insured	Story Health
		GoHealth	Vaica
		Guidespark	Vimo, Inc.
		Health Dialog Services Corporation	VirginPulse
		Health Integrated, Inc.	Vital Decisions (Evolent)
		Health Management Corporation	Vitaphone
		Health Plus Management	ViTel Net
		HealthEngine	Viverae
		HealthGrades, Inc.	Vivify Health
		HealthLeap	WageWorks, Inc.
		HealthMedia, Inc.	WellAWARE Systems
		Healthmine	WellDoc
		Healthsense	Welltok
		Healthwise	xG Health
		Ideal Life, Inc.	Zelis
		IgeaCare Solutions, Inc.	ZeOmega

Source: William Blair Equity Research

Exhibit 48 (cont.)
Consumer-Centric Healthcare
Consumer-Driven Healthcare Operators

Subsector	Description	Representative Companies	
Specialty Care Management and Advanced Care Delivery	Focused factories are operators that focus on providing comprehensive care for consumers suffering from a specific disease. For example, we view dialysis providers as focused factories for patients suffering from end-stage renal disease, as these operators provide dialysis treatments as well as the specialized care of nurses, nephrologists, social workers, and nutritionists. In our view, this "focus" not only improves the quality of care, but by creating economies of scale and reducing errors, also reduces costs.	21st Century Oncology	Heartbeat Health
		Accelecare	Heartland Dental
		Advanced Dermatology & Cosmetic Surgery	Cardiovascular Associates of America
		Affordable Dentures	Hinge Health
		Alliance HealthCare Services	HOPco
		American Addiction Centers	Insight Health Services Corp.
		American Laser Centers	Integrated Oncology Network
		American Oncology Network	James River Cardiology
		Aspen Dental	Kaia Health
		Athletico	Karoo Health
		ATI	Limber Health
		Atria Health	Livongo
		Bardavon Health Innovations	MedQuest Associates, Inc.
		Cancer Treatment Centers of America	Memora Health
		CardioOne	Midwest Dental
		Cardiovascular Logistics	Monogram Health
		Centerre Healthcare	Nephrology Specialist IPA
		ChiroOne Wellness Centers	Nevada Heart & Vascular Center
		Clear Choice Dental	Oncology Care Partners
		Conversio Health	OneOncology
		DaVita, Inc.	Pacific Dental
		Deca Dental	Panoramic Health
		Dental Care Alliance	Pivot Physical Therapy
		Dermatologists of Central States	ProPT
		Duo Health	RightMove Health
		Eating Recovery Center	Riverchase Dermatology
		Epiphany Dermatology	Schweiger Dermatology
		Evergreen Nephrology	Smile Doctors
		Evolent Health	Somatus
		First Coast Cardiovascular Institute	Strive Health
		Florida Cancer Specialists	Sword Health
		Forefront Dermatology	The Oncology Institute
		Fresenius Medical Care AG & Co.	The U.S. Oncology Network
		GenesisCare	Thyme Care
		Great Expressions Dental Care	U.S. Dermatology Partners
		Hatch Care	U.S. Health Partners
		Healthmap Solutions	U.S. Heart and Vascular
		Heart & Vascular Partners	United Musculoskeletal Partners
		Imagimed	Verdi Oncology
		Laser Spine Institute	Vori Health

Source: William Blair Equity Research

Exhibit 48 (cont.)
Consumer-Centric Healthcare
Consumer-Driven Healthcare Operators

Subsector	Description	Representative Companies	
Home healthcare and hospice	Home healthcare and hospice providers meet consumers' desires by providing healthcare where consumers want to receive it: in their homes. Moreover, by eliminating the fixed-cost infrastructure of treating these patients in facilities, overall costs are generally reduced.	Active Day Corporation Addus Healthcare, Inc. Amedisys, Inc. American HomePatient, Inc. Apria Healthcare Group, Inc. Beacon Hospice, Inc. BrightStar Continuum Healthcare, LLC Critical Homecare Solutions DocGo Dispatch Health Guardian Home Care	Help at Home Homeward Health Honor LHC Group Lincare Holdings, Inc. Kindred ModivCare MyNexus PSA Healthcare Sevita SouthernCare, Inc. VITAS Innovative Hospice Care
Interoperability solution providers and workflow management solutions	Interoperability solutions enable the seamless healthcare information exchange between disparate healthcare providers and disparate clinical systems that is needed to provide coordinated care for patients across multiple care settings.	ALERT Life Sciences Computing Awarepoint Corp. Connexall Corepoint Health dbMotion (Allscripts) DrFirst Imprivata iSirona (NantHealth) MedVentive, Inc. (McKesson) Orion Health	Redox RL Datix symplr TigerConnect TigerText Vangent Vocera Communications, Inc. Voalte WellCentive (Phillips) Wolters Kluwer
Patient engagement	In our view, these operators offer compelling solutions that drive greater patient engagement, which we believe is increasingly becoming a key aspect of healthcare, particularly in a world of consumer-centric healthcare delivery.	American Well Amino Ascension Avia BetterDoctor CareMetx CarePayments Castlight Health Change Healthcare Collective Medical Technologies Congenica ConnectiveRx CoverMyMeds Datavant DocPlanner Doctor on Demand doctor.com DrFirst Enli eVariant Everbridge Eversana GetWellNetwork GoodRx Halo Communications Health Recovery Solutions HealthCare Bluebook HealthCatalyst HealthGrades HealthiPass Healthverity HMS Holdings IllumiCare Influence Health Influx MD IntegriChain InteliChart InTouch Health Lightbeam Health Solutions Loyal Health Luma Health Lumity MDLive Mdsave	Mindoula Health Mobile Heartbeat Neural Analytics NexHealth Noteworth NovuHealth Omnisys OptimizeRx par8o PatientPing PatientPoint PatientPop PatientSafe Solutions PatientWisdom PerfectServe Phreesia Phynd PipelineRx Premier PrescribeWellness Press Ganey Associates Progyny QliqSOFT ReferralMD Salesforce SCI Solutions Sharecare Solutionreach Spok SureScripts Tabula Rasa Tea Leaves Health Tivity Transaction Data Systems TrialCard Trilliant Health Verato Vitals Voalte Vocera Wellframe Welltok ZeOmega Zocdoc
Payer focused software and services	These vendors lower consumer costs by automating administrative functions, reducing abusive billing practices, or enhancing consumer choices.	BenefitFocus Cedar Gate Technologies Change Healthcare Cotiviti Covermymeds Equian HMS Holdings Corp. Interpreta	MEDecision MesaRx PNT Data Santech SCIO Health Analytics Softheon TriZetto (Cognizant) Zipari
Personal emergency response systems (PERS)	In our view, these providers offer opportunities for individuals to live independently and receive important monitoring protection of their health.	American Medical Alert Corp (Tunstall Healthcare Grp.) Connect America Critical Signal Technologies Life Alert Emergency Response, Inc. Lifeline Systems (division of Phillips)	LogicMark, LLC MobileHelp Valued Relationships Inc.

Source: William Blair Equity Research

Exhibit 48 (cont.)
Consumer-Centric Healthcare
Consumer-Driven Healthcare Operators

Subsector	Description	Representative Companies	
Physician/consultation services and technologies	These vendors lower consumer costs by aggregating demand from different locations for their services and providing care remotely.	98point6	Guardian 24/7
		AbleTo (subsidiary of Optum / UNH)	InTouch (Teladoc)
		American Well	Lantern
		Avizia	MDLive
		Bright.md	Medweb
		Carenet	Reflexion Health
		Chiron Health	SOC Telemed
		ClickCare	Talkspace
		Consult A Doctor (Physician Consultations)	Teladoc
		DocASAP	TeleMedExperts, LLC
		Doctor on Demand	Telemedicine Solutions (WoundRounds)
		Envision Telepharmacy	West Corp.
RCM software/services	RCM software and service vendors improve the consumer experience by automating the front-end (registration, pre-authorization) process, improving accuracy of bills and payer reimbursement, and providing quality-cost analytics.	AdvancedMD	Kareo
		Avadyne Health	MedAptus
		Azalea Health	MedeAnalytics
		Bolder Healthcare Solutions	nThrive
		CarePayments	PatientPay
		Change Healthcare	PaySpan, Inc.
		Conifer Health Solutions (Tenet)	R1 RCM
		Cymetrix	RelayHealth (a McKesson company)
		Ensemble	Seamless Medical Systems
		Etransmedia Technology, Inc.	Simplee®PAY
		Experian	Tebra
		Handl Health	TriZetto
		HealthEdge	Vyne
		HealthiPass	Waystar
		Intermedix	XIFIN
Other industry leaders in emerging CDHC fields	There are a variety of emerging subsectors (with only one or two major providers) that we believe represent attractive growth areas that may benefit from increasing consumer involvement in healthcare. We list a number of these emerging industry leaders and their respective industries in the adjecent columns.	Access Health	MedBridge
		Advanced Diagnostics Group (Imaging Centers)	MD2 International (Concierge Medicine)
		Advisory Board Company (UnitedHealth Group)	MDSave
		American Health Imaging (Imaging Centers)	MDVIP Inc. (Concierge Medicine)
		Ameritox, Ltd. (Prescription Monitoring)	MedExpress (UnitedHealth Group)
		Brighter	MedVantx, Inc.
		CakeHealth	National Healing Corporation
		CareSpot Immediate Care (Urgent Care Centers)	NextCare, Inc. (Urgent Care Centers)
		CloudHealth	One Medical Group
		Cogent HMG, Inc.	Parlerai
		Concentra (Healthcare Centers)	PatientsLikeMe
		ConvenientMD (Urgent Care Centers)	PatientPing
		Definitive Healthcare (Data and Analytics)	Phreesia
		Eagle Hospital Physicians (Hospitalists)	Physicians Immediate Care
		Eliza Corp. (HMS)	Pinnacle Care (Personal Health Management)
		Envision Healthcare (Physician Staffing, ASCs)	Premier, Inc.
		Evariant	Premise Health (Worksite Health Solutions)
		Evident Health	Satori World Medical (Medical Tourism)
		Evolution1 (WEX)	Sharecare
		FastMed (Urgent Care)	Simplee
		hc1.com	Socially Determined
		Health Catalyst	Sound Physicians
		Health in Reach	Tabula Rasa
		HealthFair	Team Health Holdings, Inc.
		HealthGlobe	The Little Clinic, LLC
		HealthGrid	U.S. HealthWorks Medical Group (HC Centers)
		HealthStream, Inc.	U.S. Preventive Medicine (Preventive)
		HealthTap	Unite Us
		Healthtrax, Inc. (Preventive Health)	Vgo Communications
		Hello Health	VitalTech
		Intralign Health Solutions	Viverae
		Life Line Screening (Preventive Care)	Zeo, Inc.
		Medallian (Credentialing)	ZocDoc, Inc.

Source: William Blair Equity Research

***Healthcare Mosaic Reports* and other thematic notes**

- Digital Health Update—No Longer Unicorns, but Phoenixes Abound
- Behavioral Healthcare Market Remains Strong as Demand Continues to Exceed Supply
- Provider Burnout – Addressing the Latest Healthcare Crisis With Emerging Technology Solutions
- GLP-1 and the Potential Market for Healthcare Services, Digital Health Providers
- Healthcare Services and HCIT Checkup: Top 5 Macro Focal Points, Top 5 Highest-Interest Stocks Post Third-Quarter Earnings
- Is Demand for More PPO Offerings in Medicare Advantage Another Driver of Sustainably Higher Cost Trends?
- What's Going on in the Medicare Advantage Space, and Is It a Blip or Longer-Term Trend?

Advanced Primary Care (APC) Research

- Another Data Point Supporting Value-Based Care: 2023 ACO REACH Participants Generate $1.6 Billion in Gross Savings
- Advanced Primary Care Providers: Another Day, Another Data Drop; CMS Provides Another Positive Data Point on Value-Based Care
- Value-Based Care Update: CMS Releases 2023 MSSP Performance Data; Another Record Year of Shared Savings Results
- Value-Based Care: Third-Quarter Update—Active Funding, Partnership Activity Signals Growth Ahead Despite Recent Headwinds
- Value-Based Care (VBC): Second-Quarter Update—Investor Interest Remains Somewhat Muted, but Industry Outlook Remains Strong
- Advanced Primary Care: First Quarter 2024 Outlook—Utilization Uptick Impacts Space, but Not All Providers Equally Pressured
- APC: 2023 Review, 2024 Outlook—MA Noise Impacted Performance, But Provider Pipelines and Long-Term Outlook Remain Strong

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Accolade, Inc. (Outperform)	$3.50
Amazon.com, Inc. (Outperform)	$227.61
Cigna Corporation	$279.64
CVS Health Corporation	$45.84
DocGo, Inc.	$4.22
Dollar General Corp.	$75.84
Doximity, Inc. (Outperform)	$55.55
Elevance Health, Inc.	$379.60
Humana, Inc.	$264.21
Phreesia, Inc. (Outperform)	$26.56
UnitedHealth Group, Inc.	$513.67
Walgreens Boots Alliance Inc.	$9.47
Walmart, Inc.	$94.45
Willis Towers Watson (Market Perform)	$306.61

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