



Sustained turbulence in a post- pandemic market

2023 Healthcare and
Life Sciences Investment
Outlook

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Executive summary

Welcome to the KPMG 2023 Healthcare and Life Sciences Investment Outlook. This in-depth examination of the healthcare and life sciences (HCLS) industry explores the major developments of 2022 and the sources of continuing turbulence we expect in 2023. We analyzed how eight subsectors fared during a year characterized by macroeconomic and geopolitical upheaval, and how deal activity and market drivers could shape the 2023 investment landscape.

The insights of this report are based on extensive global research into the deal and market environments, and our annual survey of corporate and private equity deal makers across the subsectors. Crucial to creating this report is the experience of our HCLS leaders, who work with our clients on their most pressing deals, strategy, and implementation worldwide.

Last year began with optimism for HCLS investors. After two years of COVID-19-fueled advances and robust deal making, more than 70 percent of industry and PE leaders we surveyed expected to increase M&A activity in 2022, motivated by the historically low cost of capital and internal pressures to put funds to work.

Indeed, overall deal volume in the first quarter, although down from the previous year's high, remained about 21 percent higher than in the fourth quarter of 2019. However, another winter surge of COVID-19 cases at the start of 2022 continued to strain the resources of hospitals and physician practices. These organizations also were beset by employee shortages, supply chain delays, and rapidly rising costs, while life sciences companies faced their own daunting uncertainties.

Russia's invasion of Ukraine in February jolted the global economy, fueling inflationary pressures as energy prices spiked and international supply lines were disrupted. That was followed in March by the start of a series of interest rate hikes from the U.S. Federal Reserve that were among the steepest in history. With potential acquisition targets

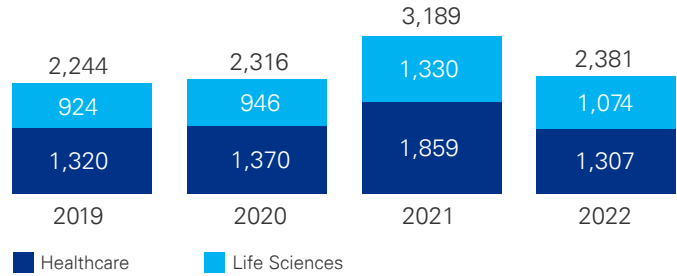
still expecting the high valuations that had prevailed in 2021, investors became quite selective in their pursuits. Although the volume of M&A in healthcare and life sciences subsectors fluctuated through the remainder of 2022, few subsectors got back to the high point of the first quarter.

The most consequential event of 2022 for the industry may have been the passage of the Inflation Reduction Act (IRA), signed into law in August. Starting in 2023, the law requires Medicare price negotiation for top-selling prescription drugs. By 2030, as many as 60 therapies may be affected. The new rules are already impacting revenue forecasting and valuation of assets in biopharma, and will likely shape research decisions and spur transactions as companies assess their pipelines and product portfolios. Both AstraZeneca and Merck have noted a possible impact on the development of cancer drugs.

Still, the extraordinary challenges of 2022 could not slow rapid innovation and strategic repositioning by companies in many subsectors. Deal making continued, often in the form of smaller acquisitions, partnerships, and licensing agreements. In many cases, these deals were designed to increase investment as research, development, and marketing milestones were achieved. Inflation, high borrowing costs, and an impending recession affected various subsectors and companies in different ways, depending on their resilience to economic downturns and the availability of cash for acquisitions.

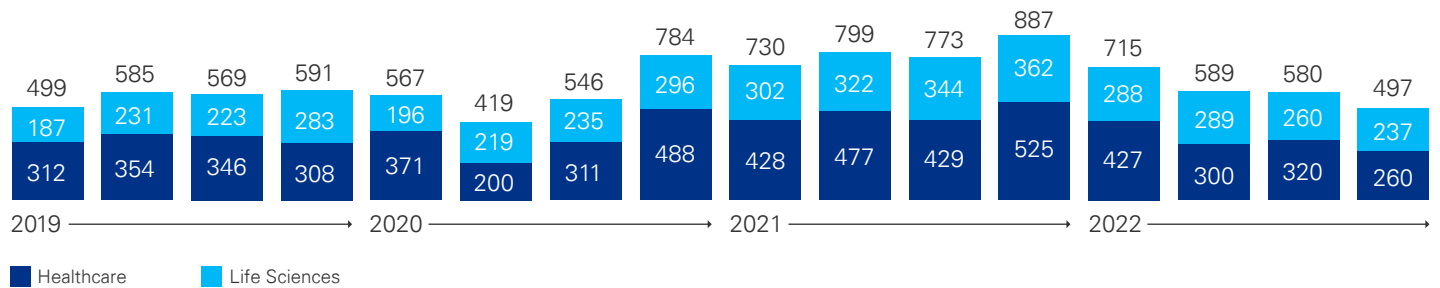
There was a sharp drop in the number of announced HCLS deals in 2022 from the heady levels of 2021. Some large deals in healthcare and life sciences still took place. Overall, there were 1,307 deals in healthcare, compared with 1,859 in 2021 and 1,370 in 2020. In life sciences, the number of deals fell from 1,330 in 2021 to 1,074 in 2022. The numbers for life sciences remained above pre-pandemic levels, and healthcare deals in 2022 were about the same as in 2019. In terms of strategic investments, those deals for life sciences companies dipped below the highs of 2021 but remained above 2019's pre-pandemic levels (Exhibits 3 and 4). In healthcare, strategic deals fell even more, dropping below figures for 2019, 2020, and 2021 (Exhibits 5 and 6).

Exhibit 1. HCLS deals remain well above pre-pandemic levels



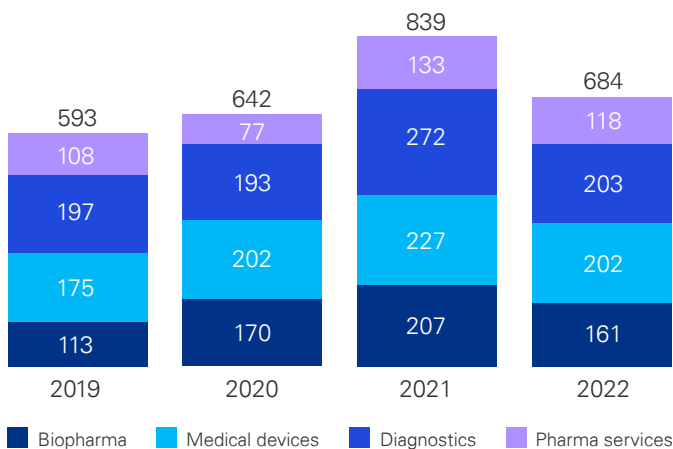
Notes: Biopharma data sourced from Informa and Pitchbook while all other LS sub-sectors' data has been sourced from Capital IQ and Pitchbook; HC data has been sourced from Capital IQ, Refinitiv, and Pitchbook; Some of the 2022 deals may be missing due to data lag at the time of publication; YTD as of December 22, 2022
Sources: Informa, Pitchbook, Capital IQ, Refinitiv, and KPMG Analysis

Exhibit 2. A steady drop from the 2021 peak



Notes: Biopharma data sourced from Informa and Pitchbook while all other LS sub-sectors' data has been sourced from Capital IQ and Pitchbook; HC data has been sourced from Capital IQ, Refinitiv, and Pitchbook; Some of the 2022 deals may be missing due to data lag at the time of publication; YTD as of December 22, 2022
Sources: Informa, Pitchbook, Capital IQ, Refinitiv, and KPMG Analysis

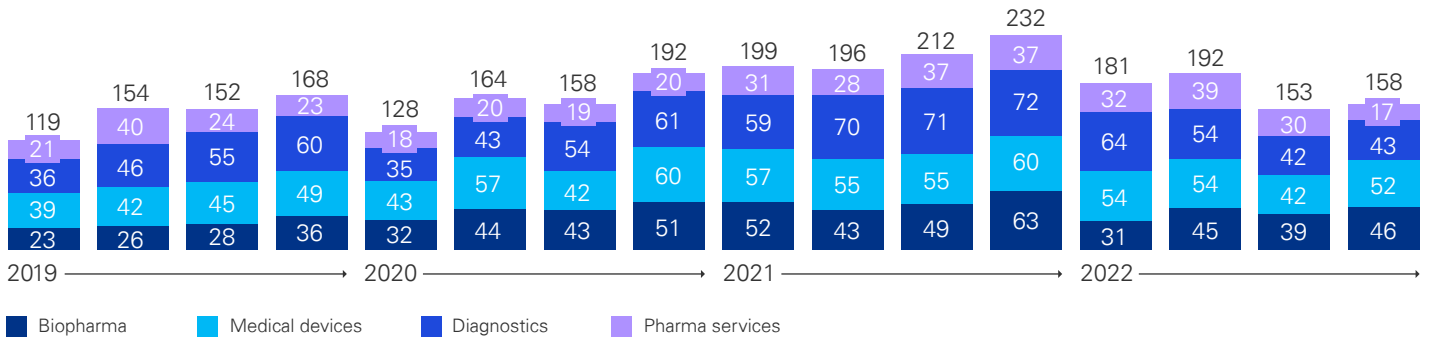
Exhibit 3: Life sciences strategic investments, 2019-22



Notes: Data for Biopharma sub-sector sourced from Informa and Pitchbook while all other LS sub-sectors' data has been sourced from Capital IQ and Pitchbook; Biopharma sub-sector excludes deals pertaining to cannabis and hemp as well as distributors/suppliers of drugs; Diagnostics sub-sector include companies that are manufacturers of diagnostics equipment, LS tools as well as lab services providers; Companies that are CRO, CMO or CDMO (support services) for medical devices companies have been excluded from our analysis; Pharma services include CROs, CMOs, CDMOs as well as companies that provide commercialization, consulting, advertising services and other services on contractual basis; Some of the 2022 deals may be missing due to data lag at the time of publication; YTD as of December 22, 2022
Sources: Informa, Capital IQ, and KPMG Analysis

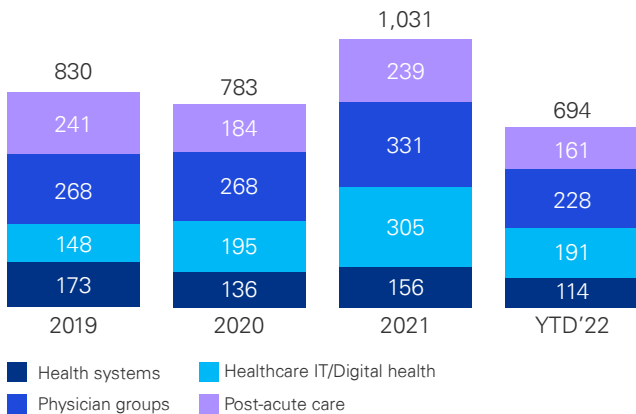


Exhibit 4: Life sciences strategic investments by quarter, 2019-22



Notes: Data for Biopharma sub-sector sourced from Informa and Pitchbook while all other LS sub-sectors' data has been sourced from Capital IQ and Pitchbook; Biopharma sub-sector excludes deals pertaining to cannabis and hemp as well as distributors/suppliers of drugs; Diagnostics sub-sector include companies that are manufacturers of diagnostics equipment, LS tools as well as lab services providers; Companies that are CRO, CMO or CDMO (support services) for medical devices companies have been excluded from our analysis; Pharma services include CROs, CMOs, CDMOs as well as companies that provide commercialization, consulting, advertising services and other services on contractual basis; Some of the 2022 deals may be missing due to data lag at the time of publication; YTD as of December 22, 2022
 Sources: Informa, Capital IQ, and KPMG Analysis

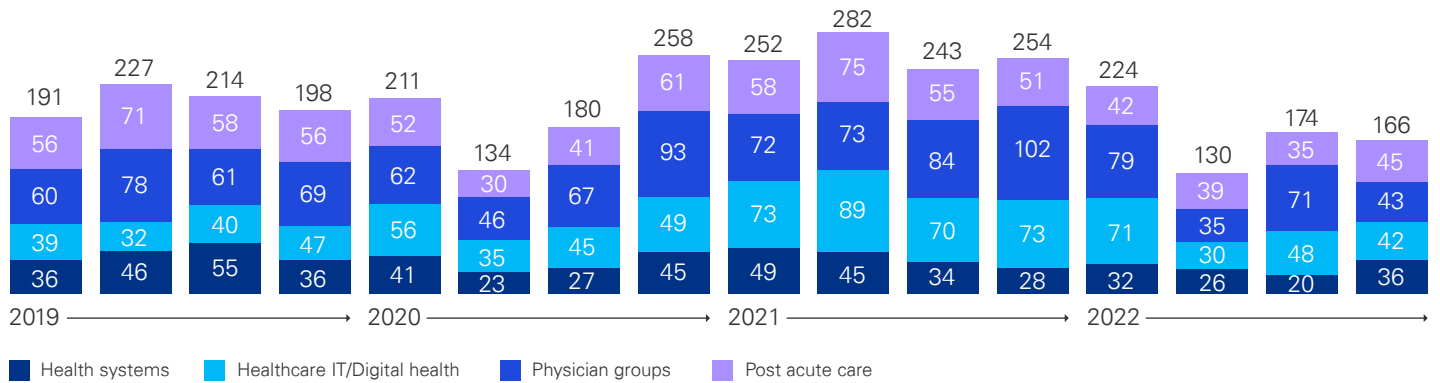
Exhibit 5: Healthcare strategic investments, 2019-22



Notes: Strategic investments include deals undertaken by a public/private company with no major private equity backing; Includes deals with only US-based Targets; Some of the 2022 deals may be missing due to data lag at the time of publication YTD as of December 22, 2022
 Sources: Capital IQ, Refinitiv, and KPMG analysis



Exhibit 6: Healthcare strategic investments by quarter, 2019-22



Notes: Data has been sourced from Capital IQ and Refinitiv; Strategic investments include deals undertaken by a public/private company with no major private equity backing (PE); Includes deals with only US-based Targets; Some of the 2022 deals may be missing due to data lag at the time of publication; YTD as of December 22, 2022
Sources: Capital IQ, Refinitiv, and KPMG analysis

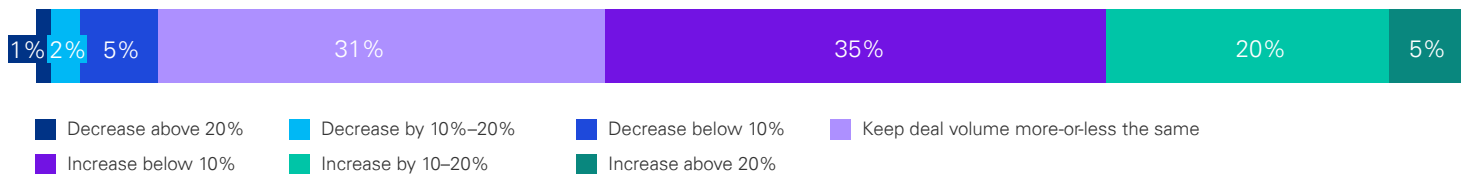
The year ahead

We are confident that investor vision and appetite remain strong. We expect deal volumes to grow in 2023 even as economic conditions become more challenging and other industry headwinds remain. Respondents to our investor survey also are bullish about M&A activity in the coming

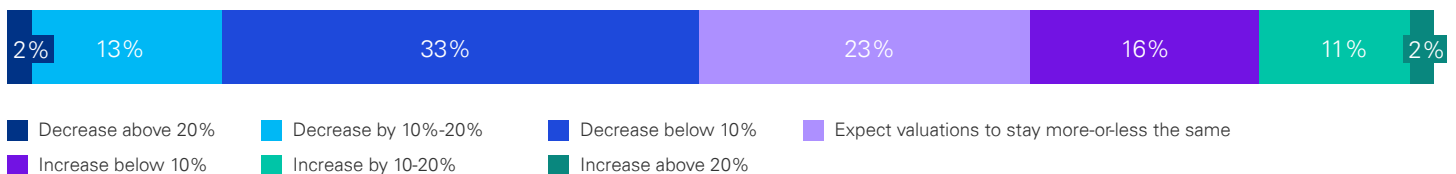
year. Sixty percent expect more deals in 2023 than in 2022, and just 8 percent predict that deal volume will fall. A projected decline in industry valuations could help propel strategic and financial investments (Exhibit 7).

Exhibit 7: Deal volumes are expected to grow while valuations come down

Q: What magnitude does your firm plan to increase or decrease M&A deal activity for 2023 compared to 2022, as measured by number of transactions?



Q: To what extent do you believe valuations in your industry will change from 2022 to 2023?



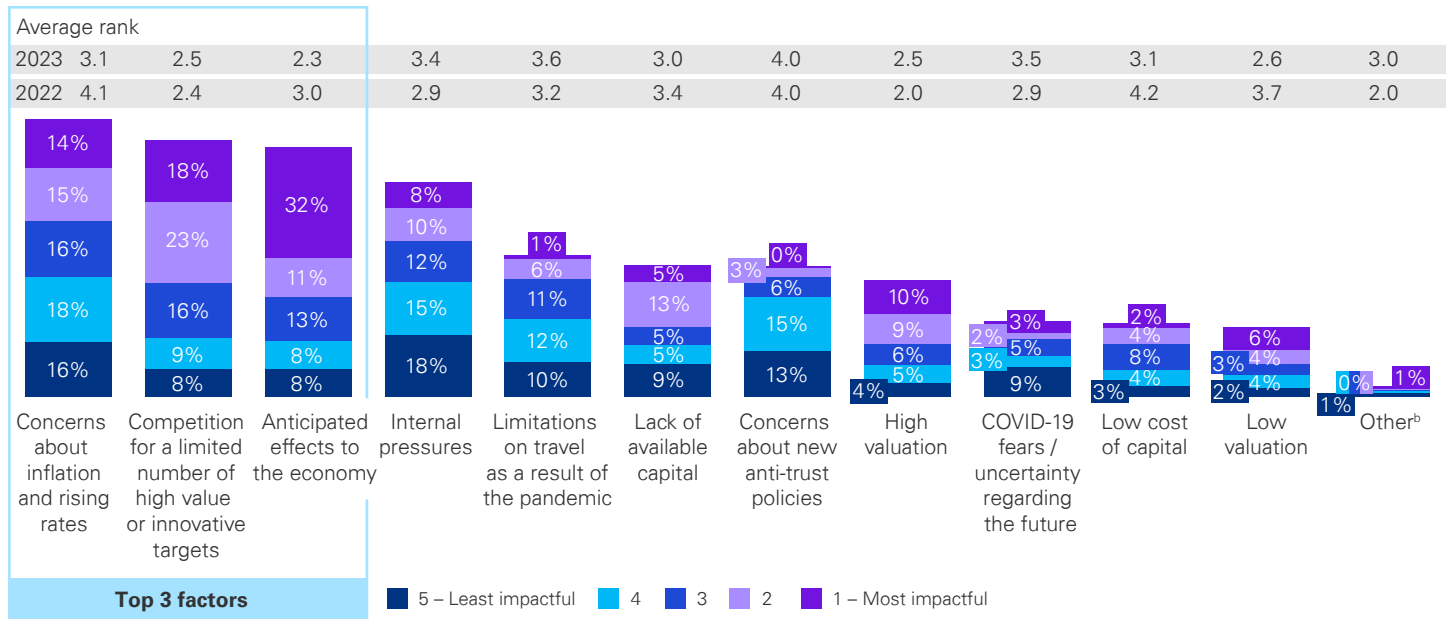
Source: 2023 KPMG HCLS Investment Survey

Still, investors cannot ignore the challenges ahead. Concerns about inflation and rising interest rates, competition for the most valuable targets, and other factors will likely impact deal plans and activity throughout the year ahead, according to our survey respondents (Exhibit 8).

As 2023 unfolds, we will continue to uncover the trends driving M&A across healthcare and life sciences and bring you quarterly updates on these evolving industries. Stay tuned.

Exhibit 8: Headwinds that could impact deal activity in 2023

Q: What factors will impact your firm’s M&A deal activity plans for 2023, as measured by number of transactions? (Please rank as applicable up to 5, 1=most impactful and 5=least impactful)



Notes: Totals: US FDA no longer recognizing China-only clinical trials, availability of qualified personnel, waiting for home-health reimbursement finalization, etc.
Source: 2023 KPMG HCLS Investment Survey



Subsector analyses

Subsector overview highlights



Life sciences

- Biopharma** — A continued focus on early-stage development of cell and gene therapies and other biologic drugs in 2022 resulted in product acquisitions, licensing deals, and strategic R&D partnerships. Those smaller transactions largely replaced the bigger deals of the previous two years. In addition, passage of the Inflation Reduction Act will require price negotiation for many best-selling drugs. (11)
- Diagnostics** — Consumers' experiences during the pandemic altered their expectations about the speed, accuracy, and convenience of diagnostic testing. This spurred companies in this subsector to pursue acquisitions and partnerships to facilitate decentralized testing for a growing number of conditions. But overall levels of deal making fell by 23 percent. Deals could rebound in 2023 if the gap between buyers' and sellers' expectations narrows. (18)
- Medical devices** — Questions about how rapidly elective surgery volume will recover dominated the calculations of many device makers in 2022. Deal volume in the subsector dropped by about 15 percent. Industry leaders are still looking to bolster and shape their portfolios, with a focus on innovations in cardiology, robotic surgery, internet-connected wearable devices, and other areas. (22)
- Biopharma services** — Demand for what companies in this subsector do—from clinical testing of increasingly complex pipeline therapies to securing regulatory approvals and commercializing new therapies—continues to rise as large companies and biotechs increasingly outsource components of the drug-development process. Deal making could rebound in 2023 as companies maneuver to offer broader, deeper capabilities. (26)



Healthcare

- Hospitals and health systems** — Most are now operating on narrow or even negative margins given higher costs of supplies, capital, and especially labor. We expect these pressures to force even some of the largest systems to consider M&A, joint ventures, and nontraditional partnerships. (33)
- Physician practices** — Recruiting and retention will continue to present challenges in this subsector, but we expect strong deal volume and consolidation in 2023. Many physician practices will continue to be appealing targets because they are nimbler than hospital-driven health systems, ready to partner with payers to shift risk and move toward value-based care, and have the direct patient contact required to drive improvements in health. (37)
- Home healthcare and hospice** — This marketplace will continue to be unusually volatile, but most patients and payers prefer telehealth and healthcare at home to hospital care, and the subsector remains relatively fragmented. Hospitals and brick-and-mortar post-acute providers will seek targets in this space for vertical integration, and private equity will look for pools of profitable growth, especially among less efficient and smaller targets. (42)
- Healthcare IT** — The subsector continues to attract the interest of investors and acquirers looking for efficiencies and growth. In the wake of the pandemic, they have focused less on consumer and telehealth and more on revenue cycle management, value-based care, advanced analytics, and other tools for providers and payers. We expect deal activity to remain strong in 2023, especially for targets worth \$200 million to \$1 billion, despite higher costs of capital and continued volatility. (46)



Life sciences

Life sciences: A year of innovation and uncertainty

For most of the life sciences industry, 2022 brought more uncertainty than promise. During 2020 and 2021—years of mobilizing to respond to the COVID-19 crisis—life sciences companies in every subsector benefited from remarkable levels of funding and revenue. This fueled astonishingly rapid scientific advances as well as a surge in deal making. But during the past year, the pandemic eased, the flood of money receded, and macroeconomic challenges increased.

In August, the Inflation Reduction Act passed. The legislation authorizes Medicare to negotiate drug prices on a group of high-cost drugs and upends long-standing assumptions about how drug companies manage their portfolios and approach their R&D, clinical and commercial strategies (for more, read our paper on the impact of the IRA on biopharma portfolio strategies).

As in other industries, biopharma deal making in 2022 retreated from the high levels of the previous two years. Deal activity focused on acquisitions to add products to the pipeline and, increasingly, early-stage investments, licensing deals, and strategic R&D partnerships.

Rapid innovation is also driving activity in diagnostic testing. Partly prompted by the COVID-19 response,

companies are developing new kinds of tests, offering more testing outside of hospital settings (including more at-home testing), and improving the speed and accuracy of results. Even with this shift in focus, it did little to bolster deal volume in the subsector, which fell from 382 in 2021 to 293 in 2022.

For makers of medical devices, deal volume dropped by about 15 percent in 2022 as elective surgery volumes continue to lag pre-COVID-19 levels. However, companies in plastic surgery, endoscopy, orthopedics, and cardiology have experienced rising demand. Innovation in interventional cardiology, robotic surgery, and some other areas is likely to lead to additional deal making as industry leaders look to bolster and shape their portfolios.

Deal volume in biopharma services fell by 12.5 percent in 2022, but demand for services remains strong. Major pharmaceutical companies as well as emerging biotechnology firms continue to outsource much of the drug-development process to biopharma services companies. In past recessions, these companies have outperformed the overall market, and may again prove resilient in the face of economic headwinds.

Biopharma: Smaller deals that emphasize innovation

After very strong deal activity in 2020 and 2021, and despite expectations that trend would continue, deal volume fell in 2022. Acquirers remained focused on innovation: product acquisition, licensing deals, and strategic R&D partnerships. Deals frequently included specific milestones related to clinical trials completion, regulatory approval, and commercial release. The year's largest deal was Amgen's \$27.8 billion acquisition of Horizon Therapeutics, announced in December, which will give Amgen three FDA-approved therapies as well as several promising early-stage treatments. That dwarfed the number 2 deal: Pfizer's \$11.6 billion acquisition of

Biohaven, which gives Pfizer a portfolio of migraine therapies. But those large transactions were the exception; for the most part, activity continues to trend toward smaller deals and licensing agreements.

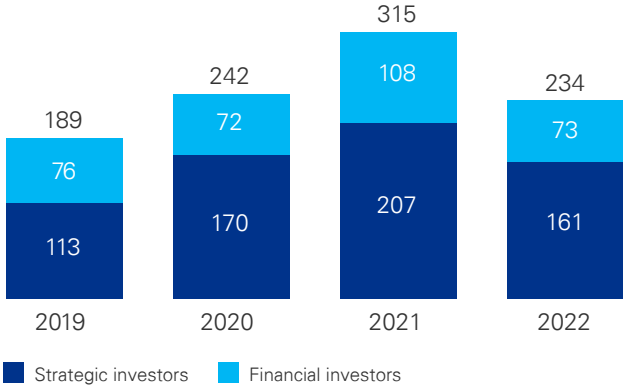
Cell and gene therapies remain a growth area: deal activity outpaced growth in monoclonal antibody pipeline therapeutic, and cell and gene transactions now account for 22 percent of the biopharma deal market, up from just 10 percent of deals in 2017. The industry's move toward deal strategies that mitigate risk seems to be a reaction to the range of uncertainties facing the biopharmaceutical industry.



How biopharma fared in 2022

In 2022, the volume of biopharma deals was almost 26 percent lower than in a very robust 2021. In 2021, there were 207 strategic investments, compared with 161 in 2022. Deals by financial investors also declined, from 108 in 2021 to 73 in 2022. Overall, biopharma deal volume was about 24 percent higher than in 2019, before the pandemic.

Exhibit 9: Biopharma deals still top 2019 levels



Notes: Biopharma data sourced from Informa and Pitchbook while all other LS sub-sectors' data has been sourced from Capital IQ and Pitchbook; HC data has been sourced from Capital IQ, Refinitiv, and Pitchbook; Annual Biopharma deal outlook publication does not include M&A deal activity with financial investors and includes other non-M&A deals such as Strategic R&D collaborations, outputs will thus differ to this publication; Some of the 2022 deals may be missing due to data lag at the time of publication; YTD as of December 22, 2022
Sources: Capital IQ, Informa, Pitchbook, and KPMG Analysis

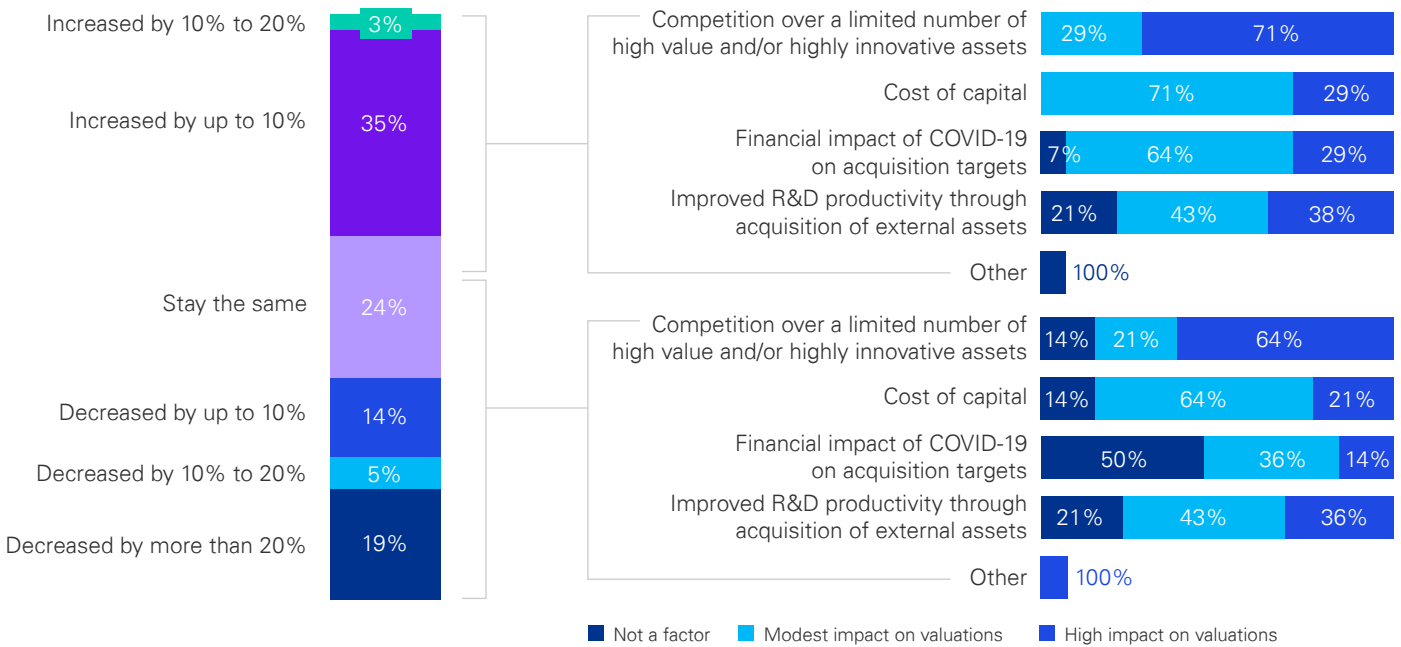
In our survey, 38 percent of biopharma executives believed that valuations in the subsector decreased in 2022, and 24 percent said valuations had fallen by 10 percent or more. Competition for a limited number of assets, the cost of capital, and the impact of COVID-19

on acquisition targets were the top reasons cited by those who said valuations had come down. But competition for assets was also noted as the top reason for an increase in valuation by those who said valuations had gone up (Exhibit 10).

Exhibit 10: Many factors impact biotech valuations

Q: To what extent do you believe the valuations of innovative pharmaceutical, or biotech companies have changed in 2022?

Q: In your opinion, what factors most impacted valuations for pharmaceutical or biotech companies in 2022?



Notes: Based on respondents who work/have investment in biopharma industry; Based on respondents who selected increase; Based on respondents who selected decrease; Other: Legislation changes
 Source: 2023 KPMG HCLS Investment Survey

Notable acquisitions in 2022 included two Pfizer deals: the \$11.6 billion acquisition of Biohaven¹ and its \$5.4 billion acquisition of Global Blood Therapeutics. The deals expand Pfizer’s sickle-cell disease portfolio and add early-stage investigational assets.²

There were several noteworthy trends in the subsector last year:

The growing impact of digital therapeutics. These software- and app-based therapies for preventing, managing, or treating a wide range of diseases are surging into the mainstream. Clinical trials, especially for psychiatry, neurology, and conditions such as

¹ Source: “Pfizer Completes Acquisition of Biohaven Pharmaceuticals,” Pfizer press release, October 3, 2022

² Source: “Pfizer Completes Acquisition of Global Blood Therapeutics,” Pfizer press release, October 5, 2022

ADHD, have grown significantly, and industry leaders have numerous treatments working their way through development. In December, Click Therapeutics received breakthrough device designation for its digital program to treat episodic migraine, edging the company closer to its first FDA approved therapy.³ Payers are increasingly open to covering often cost-effective digital therapies, pharmacy benefit managers are adding digital health tools to their platforms, and proposed legislation would mandate Medicare coverage and reimbursement for prescription digital therapeutics. In an area dominated by small start-ups, consolidations and other deal making could rise in 2023.

A bifurcated approach to acquisitions. As companies search for innovative assets and platforms, most find themselves competing for a rich but finite universe of attractive early-stage targets. This is occurring as managements are holding out for higher valuations than may be warranted at a time when risks are high and the share prices of public companies in the industry have fallen. Valuations may move if early-stage biotech companies find it more difficult to raise additional capital in the public markets. Yet even now, some large biopharma companies are still willing to spend heavily on early-stage assets to fill their pipeline. Others have held back, and their hesitation could prove costly if those companies fall behind during a period of extremely rapid innovation and a shift away from legacy treatment approaches.

Fewer acquisitions, more collaborations. We have also seen a growing emphasis on collaborations rather than full-company acquisitions as a way to build pipelines and experience while mitigating some of the risks of failure. Creative deals with an innovative biotech company or asset may be a more judicious and diverse deployment of capital across multiple, disruptive opportunities than acquisition alone.

A looming “patent cliff.” Although the situation is not as severe as a decade ago, a coming spate of patent expirations for major biopharma companies could again threaten revenues. Between now and 2030, more than \$230 billion in sales could be at risk as almost 200 drugs, including dozens of blockbusters, lose patent protection. That coming revenue shortfall increases the urgency for bringing new drugs to market and is likely to motivate additional M&A as companies add promising therapeutics to their pipelines.⁴

Impact of the Inflation Reduction Act (IRA). How companies choose to fill their pipelines could be altered by the IRA, which will impose negotiated Medicare prices beginning in 2026 for 10 top-selling drugs and expand the list of affected therapies to as many as 60 by 2030. Prices of small-molecule drugs are protected from negotiation for only nine years, compared with 13 years for biologics.

The new rules will affect forecasting and valuation of pipeline assets, and will likely affect deal making. Because the IRA gives biologics four more years of protection from negotiation than it allows for small-molecule drugs, it creates a more positive environment for the development of biologics. Already, AstraZeneca and Merck executives have noted a potential impact on cancer drug development,⁵ and Eli Lilly blamed the IRA for its decision to scrap a phase-one drug being investigated as a possible treatment for several blood cancers.⁶

Respondents to our survey noted several ways that the IRA is impacting their companies’ M&A strategies. Fifty-one percent of those surveyed said that they were lowering forecasts and valuations of acquisition targets likely to be affected by the new law, while 43 percent said they planned to avoid certain deals that had been considered actionable in the past. Thirty-eight percent said they may adjust acquisition strategies to consider therapeutic areas they had not previously focused on (Exhibit 11).

³ Source: “Click Therapeutics inches closer to first FDA OK with breakthrough nod for migraine app,” Fierce Biotech, December 19, 2022

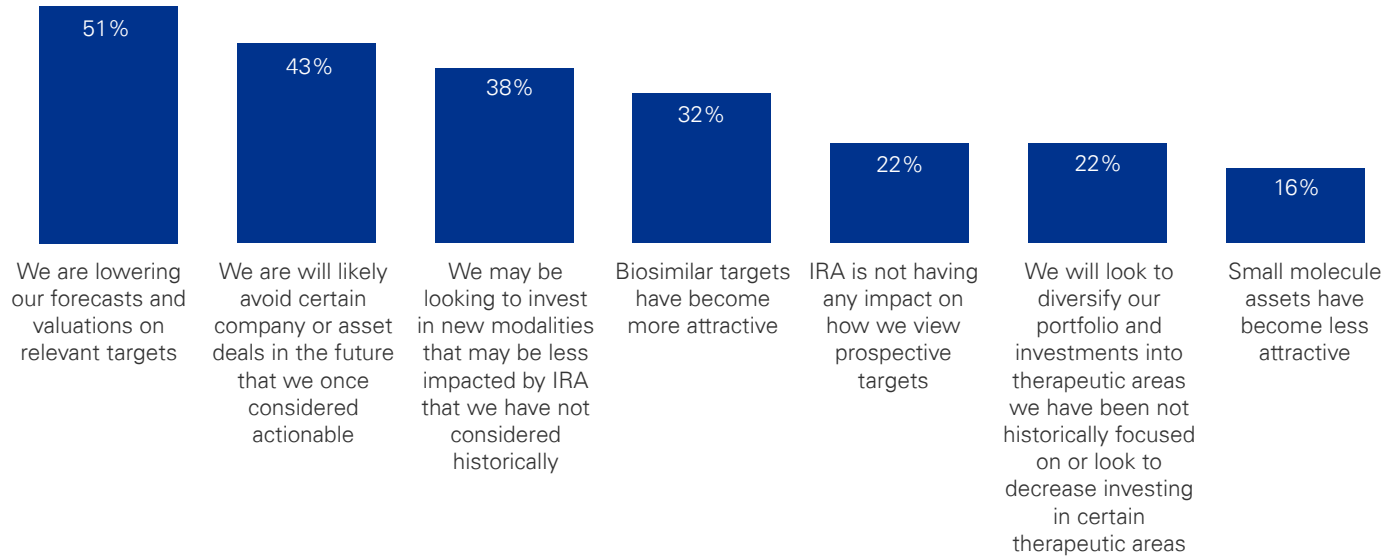
⁴ Source: “Looming Patent Cliff will be Pharma’s Moment of Truth,” BioSpace.com. June 7, 2022

⁵ Source: “IRA impact: AstraZeneca and Merck CEOs warn of oncology drug development shifts,” Endpoints News (endpts.com), Nov. 11, 2022

⁶ Source: “Updated: Eli Lilly blames Biden’s IRA for cancer drug discontinuation as the new pharma playbook takes shape,” Endpoints News (endpts.com), Nov. 1, 2022

Exhibit 11: The IRA is altering forecasts and strategy

Q: To what degree are the implications of the Inflation Reduction Act impacting your firm's strategy on company or asset deals in 2023 and beyond?



Notes: Based on respondents who work/have investment in biopharma industry; Respondents were allowed to select all that apply
Source: 2023 KPMG HCLS Investment Survey



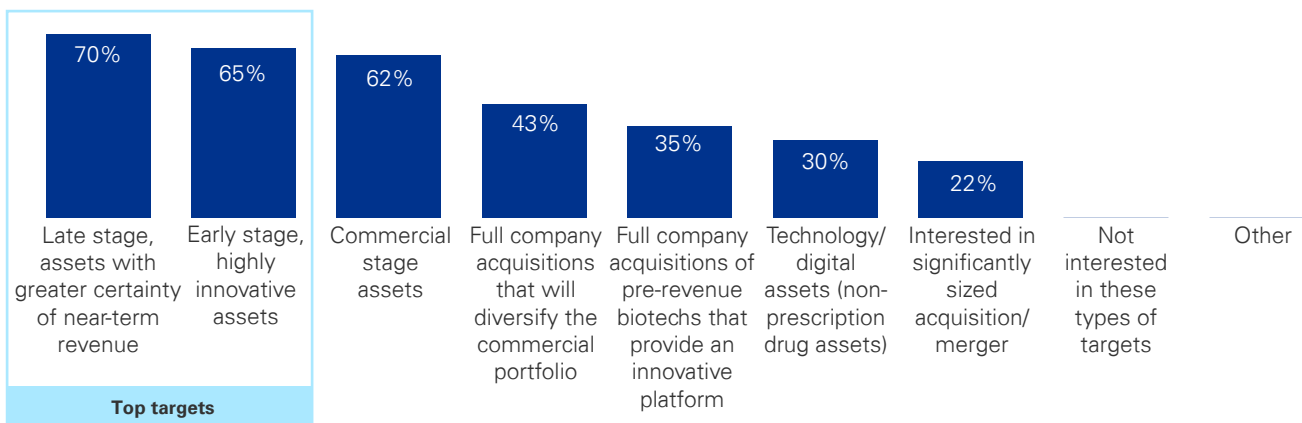
Outlook and investment considerations for 2023

The overriding importance of innovative therapies to biopharma companies will continue to be a major motivation for M&A in this subsector, with 70 percent of respondents to our survey saying they would focus

on late-stage assets that provide a greater certainty of near-term revenue and 65 percent targeting early-stage, highly innovative assets (Exhibit 12).

Exhibit 12: Early- and late-stage assets are top biopharma targets

Q: In 2023, what types of targets will your company look to acquire?



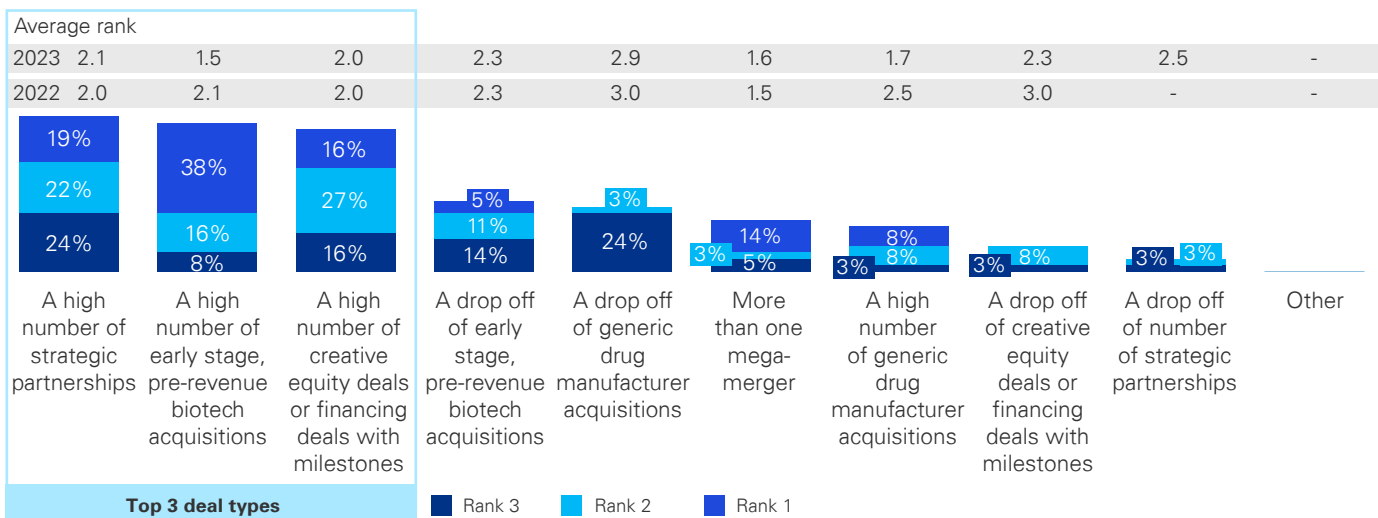
Notes: Based on respondents who work/have investment in biopharma industry; Respondents were allowed to select all that apply
Source: 2023 KPMG HCLS Investment Survey

In terms of deal types, 65 percent of survey respondents said they would target strategic partnerships, 62 percent expected to focus on biotech acquisitions,

and 59 percent planned to emphasize creative equity deals with milestones (Exhibit 13).

Exhibit 13: Strategic partnerships and biotech acquisitions will be a chief focus

Q24: What types of pharmaceutical deals do you believe 2023 will be characterized by? (Rank top 3 in order)



Notes: Based on respondents who work/have investment in biopharma industry; Bar total based on respondents who gave some rank to the given deal
Source: 2023 KPMG HCLS Investment Survey

Roadblocks on the path to precision medicine



We are firmly in the age of precision medicine, particularly in oncology. The precision medicine approach allows for highly personalized treatments based on individual genetic and molecular data. For many kinds of cancer, it is now possible to identify who will likely respond to a particular therapy based on a molecular analysis of that patient’s tumor. However, breakdowns in the care continuum mean that many patients never receive appropriate therapy. For example, a recent paper looking at care for patients with advanced non-small cell lung cancer found that some 65 percent were not benefiting from treatments that could help them because of clinical practice gaps in biomarker testing to match patients with precision therapies.⁷

Beyond what it means for patients who receive suboptimal care, this situation also has significant implications for M&A valuations of potential acquisition targets with precision oncology portfolios. To evaluate

those target companies based solely on what their therapies can accomplish—but without a fundamental understanding of the extent physicians are ordering biomarker testing—could lead to overpaying based on forecast assumptions that vastly overinflate the number of patients who could receive the therapy. In this era of precision medicine, it’s no longer sufficient to consider just the fundamentals of the price of a drug and its and market share. Testing and diagnostic considerations may be even more important.

KPMG’s proprietary precision medicine database maps testing dynamics from both the physician and laboratorian perspectives in 14 countries and is used to support our clients in navigating potential roadblocks to a successful precision medicine launch. For more information, please see our precision medicine offerings [here](#).

Source: “Precision Medicine,” National Human Genome Research Institute, December 19, 2022

⁷ Impact of Clinical Practice Gaps on the Implementation of Personalized Medicine in Advanced Non-Small-Cell Lung Cancer | JCO Precision Oncology (ascopubs.org)

Tailwinds and headwinds

Tailwinds

Thriving global innovation. Broad advances in treatments for an expanding range of diseases are driving the shift toward biologics and helping to create a fertile landscape of deal targets. The past year saw FDA approval of more than 30 new drugs, including the first to delay onset of type 1 diabetes, therapies for multiple myeloma and ALS, another GLP-1 type 2 diabetes and weight-loss drug, and treatments for rare diseases. In addition, phase 3 results for Lecanemab, an investigational therapy from Biogen and Japanese biopharma company Eisai, showed a slowing of cognitive decline in Alzheimer's disease.

Precision medicine. Continued growth of precision medicine, which personalizes treatment based on individual genetic and molecular differences, has led to broad benefits for patients and accounts for a rising percentage of pipeline therapies and pharmaceutical deal making.

Headwinds

Valuation instability. In a challenging macroeconomic climate that includes persistently high inflation and rising interest rates, divergent expectations of potential buyers and sellers may continue to limit the volume and value of transactions.

Talent shortage. If innovation outpaces the supply of qualified talent, it could dampen dealmaking and increase costs for recruitment and retention. A KPMG analysis suggests significant labor shortfalls for senior R&D roles could begin in 2024.⁸

Concern about the IRA. The legislation will likely cause the industry to raise drug prices at launch and will impact forecast assumptions for future blockbuster drugs. This could lead to further de-emphasizing small-molecule therapies.

FTC policy. As FTC commissioners become increasingly assertive in talking about this industry it could begin to shape how companies think about deals.



⁸ Source: KPMG Biopharma Demand Model and Diagnostics FTE Demand from KPMB Medical Device and Diagnostics FTE Demand Model



How a novel FTC theory could impact life sciences M&A

In 2022, the Federal Trade Commission (FTC) for the first time applied a novel approach to anti-competitive activity from high-tech to a healthcare transaction. Last July, the agency sought to block Meta's acquisition of Within, a virtual reality (VR) fitness app maker. The agency noted that Meta was a "perceived potential" entrant into VR fitness, even though there was no publicly available evidence that Meta had any intention to develop a VR fitness product or service. The FTC complaint alleges a perception among competitors about Meta's intentions and its capacity to enter VR fitness "[i]n light of Meta's economic characteristics, size, resources, capabilities, advantages, and incentives."

It is easy to imagine how this theory could apply to a transaction between an established pharmaceutical player and a clinical stage life sciences company. Like Meta, large pharmaceutical companies have the resources and expertise (preclinical, clinical, regulatory, and commercial) to develop therapies in a wide range of indications. Any presence in a new therapeutic area, therefore, could lead the FTC to allege that competitors view the pharma buyer as a perceived potential entrant, just like Meta in VR fitness.

The FTC's theory remains both unproven and confined to the facts of the VR case. The agency must first convince a federal court that Meta's acquisition of Within would harm competition based on its perceived potential entry theory. The agency would then need to apply the same theory to life sciences—a more fragmented space with higher levels of competition. Nevertheless, we see that there is already a perception or speculation that life sciences companies actually have been refraining from M&A activity because of the risk of a costly regulatory review process.

For now, deal making is (mostly) proceeding as normal. In 2022, transactions between established pharmaceutical players and startups largely received standard agency scrutiny using proven frameworks, with a few notable exceptions (such as the CSL/Vifor transaction in the sickle cell space, and Vertex's proposed acquisition of Viacyte). Still, it is worth keeping a close eye on the developments of Meta/Within and the judicial reception to the FTC's theories for any hints they could be applied in other industries.

– **Arman Oruc**

Arman Oruc is Co-Chair, Antitrust Competition, Goodwin Procter



The take-away

Thriving global innovation in disease treatment will continue to shape the biopharma deal market, as industry leaders compete for prized assets in oncology, diabetes, rare diseases, and obesity, among other therapeutic areas. Investors are focused on both early- and late-stage therapies and continue to use strategic partnerships and milestone-based deal structures

to mitigate risk. The 2022 passage of the Inflation Reduction Act adds a major challenge to forecasting as companies seek to realize long-term value from their investments. And Amgen's December agreement to acquire Horizon for \$28 billion, after a bidding war, could serve as a sign of bold, active deal making to come.

Diagnostics manufacturing and lab services: New paths to growth

The waning of the COVID-19 pandemic has brought a sharp decline in demand for COVID-19-related testing, forcing the diagnostics industry to explore other paths to growth. Some of that will involve a return to other kinds of physician-ordered testing as in-person patient visits have rebounded to pre-pandemic levels. The long-term legacy of the COVID-19 response, however, will be more decentralized testing, moving testing from reference labs to hospital labs, urgent care centers, pharmacies, and at-home testing.

Rapid innovation, with changes in the kinds of tests that are offered, where they can be conducted, and the speed and accuracy of results, is changing the face of diagnostic testing and fueling transactions throughout the industry. Companies are making acquisitions and forging partnerships to position themselves for this new future.

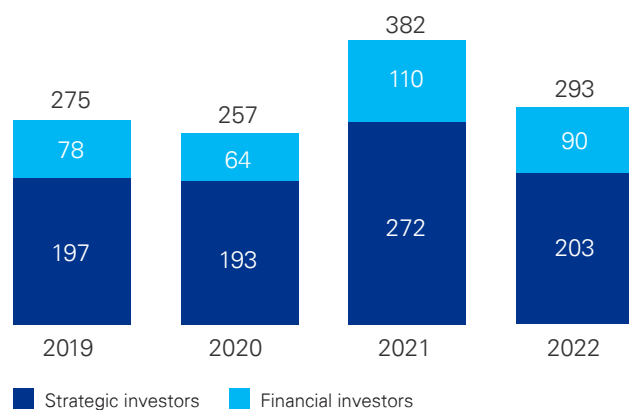


How diagnostics fared in 2022

In 2022, the volume of diagnostics company deals was about 23 percent lower than in a very robust 2021. In 2021, there were 272 strategic investments, compared with 203 in 2022. Deals by financial investors also declined, from 110 in 2021 to 90 in 2022. Overall, diagnostics deal volume was about 7 percent higher than in 2019, before the pandemic.

As in other life sciences subsectors, diagnostics companies experienced lower deal volume in 2022 after the boom year of 2021 amid the slump in the value of public companies. Another factor was the gap between the expectations of sellers and what buyers were willing to pay. Deal volume for diagnostic companies dropped from 272 strategic investments and 110 financial investments in 2021 to 203 and 90, respectively, in 2022.

Exhibit 14: Diagnostic manufacturers' strategic and financial investments, 2019-22



Notes: Biopharma data sourced from Informa and Pitchbook while all other LS subsectors' data has been sourced from Capital IQ and Pitchbook; HC data has been sourced from Capital IQ, Refinitiv, and Pitchbook; Annual Biopharma deal outlook publication does not include M&A deal activity with financial investors and includes other non-M&A deals such as Strategic R&D collaborations, outputs will thus differ to this publication; Some of the 2022 deals may be missing due to data lag at the time of publication; YTD as of December 22, 2022

Sources: Capital IQ, Informa, Pitchbook, and KPMG Analysis

While diagnostics companies have largely gone through the cash generated by peak COVID-19 testing, most companies are still generating adequate revenue to fund deals. Small deals and partnerships aimed at innovation were also completed and announced.

Decentralized testing. The migration of COVID-19 testing out of care facilities has spurred consumer demand for the same convenience for other kinds of tests.⁹ Early in the year, Labcorp announced a partnership with Getlabs, a diagnostics start-up to which it had contributed Series A funding. Getlabs operates by sending a phlebotomist to patient homes to collect blood, saliva, urine, or stool, then delivers samples to Labcorp for testing.¹⁰ And Wellfleet, a student health insurer, has partnered with binx health, a technology and diagnostics company that provides in-dorm HPV testing.¹¹



Notable deals of 2022

PerkinElmer announced in August the planned divestiture of three non-core businesses to New Mountain Capital. These sales advance the company's goal to focus on developing and commercializing innovative diagnostics and life science research tools and services.¹⁶

Quidel's \$6 billion deal to acquire Ortho Clinical Diagnostics, announced in 2021 but closed in 2022, expands access to clinical chemistry, immunoassay, immunohematology, donor screening, and point-of-care diagnostics.¹⁷

Speed, accuracy, and convenience. COVID testing often required a trade-off between PCR accuracy and the speed and convenience of antigen testing. Now companies are looking to move past that compromise as they build on the COVID-19 experience. Sorrento acquired Virex Health, which provides high-sensitivity home testing for COVID-19 as well as an early liver cancer biomarker and testing for other diseases while utilizing the manufacturing infrastructure for diabetes glucose strip tests and glucometers.¹² Sherlock Biosciences seeks to provide antigen-test convenience with PCR-like accuracy for molecular diagnostics for potential applications that include infectious diseases, early detection of cancer, treatment monitoring, and precision medicine. The company has licensed CRISPR-Cas13 technology from Harvard's Wyss Institute,¹³ and in 2022 signed a licensing agreement with Shanghai-based Tolo Biotech that will expand the diagnostic companies' markets beyond the United States and into China.¹⁴ Visby Medical, supported by \$100 million in PE funding, offers STD testing and other rapid, highly accurate at-home tests.¹⁵

Thermo Fisher has been actively broadening and deepening its diagnostics capabilities. In 2021, it acquired Mesa Biotech, whose powerful testing platform uses PCR technology for molecular testing of COVID-19, flu, and respiratory syncytial virus.¹⁸ In 2022, Thermo acquired The Binding Site, which develops diagnostic products to detect and monitor protein-based blood disorders such as multiple myeloma.¹⁹

South Korea-based SD Biosensor and SJL Partners acquired Meridian Bioscience, an in vitro diagnostics company, to facilitate SD Biosensor's entry into U.S. markets, utilizing Meridian's distribution network and expertise in the regulated U.S. market.²⁰

⁹ Source: "How Labcorp, Abbott, BD, Siemens plan to expand home testing market," MedTech Dive, November 16, 2022

¹⁰ Source: "Labcorp Launches Convenient Home Diagnostic Test Collection Service in Collaboration With Getlabs," press release, April 22, 2022

¹¹ Source: "Wellfleet, binx health Partner to Broaden Access to HPV Screening through the binx Everywhere Care Platform," press release, May 4, 2022

¹² Source: "Sorrento Completes Acquisition of Virex Health, Will Commercialize Next-Generation at-Home Diagnostic Testing That Rivals PCR-Level Sensitivity for Daily Covid-19 Tests and Early Cancer Diagnosis," press release, February 1, 2022

¹³ Source: "Sherlock Biosciences licenses Wyss Institute's Ambient Nucleic Acid Amplification Technology from Harvard to Develop Highly Accurate, Low-Cost Diagnostics for Point of Need," press release, October 17, 2022

¹⁴ Source: "Sherlock Biosciences and Tolo Biotech Expand Collaboration to Advance Development and Adoption of CRISPR-based Diagnostics," press release, November 1, 2022

¹⁵ Source: "Visby Medical Raises over \$100 Million in Series E Financing," press release, March 1, 2022

¹⁶ Source: "PerkinElmer to Sell Off 3 Units for \$2.45B, Reclaim Dx Focus," Fierce Biotech, August 2, 2022

¹⁷ Source: "Quidel, Ortho Clinical Diagnostics Combine to Form In Vitro Diagnostics Company," Mass Device, May 27, 2022

¹⁸ Source: "Thermo Fisher Scientific Completes Acquisition of Mesa Biotech," press release, February 26, 2021

¹⁹ Source: "Thermo Fisher Will Buy The Binding Site for \$2.6B to Gain Specialty Diagnostics Portfolio," MedTech Dive, October 21, 2022

²⁰ Source: "SD Biosensor and SJL Partners to acquire Meridian Bioscience for \$1.53bn," Medical Device Network, July 8, 2022



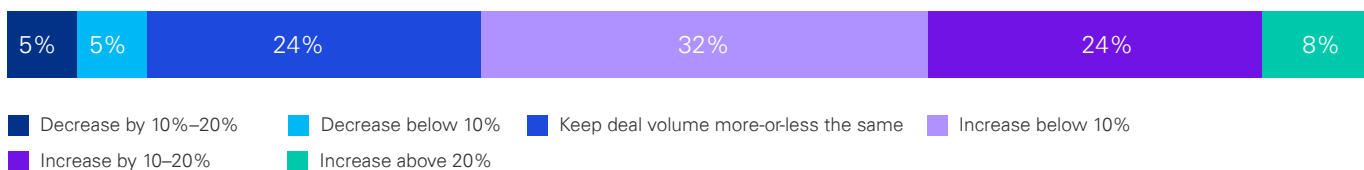
Outlook and investment considerations for 2023

Sixty-four percent of our survey respondents say they expect the number of deals in the subsector to increase in 2023, and 32 percent of respondents believe deal volume will rise by at least 10 percent (Exhibit 15). Strategic partnerships, cited by 65 percent of respondents, will likely predominate, outpacing large

consolidations (24 percent) and small strategic tuck-ins (11 percent). In last year’s survey, respondents said they expected small strategic tuck-ins and strategic partnerships to be most likely, followed by large consolidations.

Exhibit 15: Deal makers expect higher volume in 2023

Q: How do you believe overall deal volume for diagnostic manufacturers in 2023 will compare to 2022?



Notes: Based on respondents who work/have investment in diagnostic manufacturer’s industry; Bars in the chart adds up to 100%
Source: 2023 KPMG HCLS Investment Survey

This year’s survey respondents expect the top three areas for M&A activity to be digital pathology, liquid biopsy, and apps and digital. That’s a departure from the previous two years, when the top three were point-of-care testing, driven by the pandemic, next generation sequencing (NGS), and liquid biopsy.

Interest in digital pathology is not new. It has been on slow burn for the last 20 years given its obvious practicality because cloud storage uses much less space and is less expensive than keeping blocks in an Iron Mountain storage unit like some hospital systems must do. However, its execution has been more challenging due to acquiring and adopting digital pathology systems with the speed and connectivity needed.

As investors and diagnostic manufacturers prepare for long-term sustainable growth in areas with high unmet needs, one path forward is to deploy resources gained from COVID-19 in technologies such as oncology genomics that aid in early screening. In contrast to the past few years, when most capital was deployed

for molecular diagnostic tests for COVID-19 and other infectious diseases, there may be more emphasis now on diagnostic testing used for cancer screening, risk assessment, and monitoring for minimum residual disease (MRD) detection and relapse. Those are areas in which additional innovation is required at a time when oncology is expected to be a huge driver of revenue growth for biopharmaceutical companies.²¹ Smaller companies played a key role in developing and commercializing several rapid, easy-to-use molecular testing platforms during the pandemic, and partnering with academic labs and diagnostic start-ups will continue to be an important approach for large diagnostic manufacturers.

Investments in disease surveillance, monitoring, real-world data, analytics, artificial intelligence, and machine learning could also help fuel new growth in diagnostics. The FDA’s creation of the COVID-19 diagnostics evidence accelerator is one example of how real-world evidence can be used to facilitate real-time

²¹ Source: “Evaluate Pharma World Preview 2022,” Evaluate, October 8, 2022

monitoring of diagnoses and provide clinical data to inform public health decision making.²² PathAI's multi-year collaborations with BMS and other pharmaceutical companies, which focus on translational research in oncology, immunology, and fibrosis²³ demonstrate how capital may increasingly be deployed in these areas.

Post-COVID, diagnostic manufacturers and investors should consider investing in monitoring and surveillance

of other pathogens that have the capacity to cause future disease outbreaks. The WHO recently convened a workshop outlining the objectives for effective genomic surveillance of pathogens worldwide,²⁴ and a key component of that work will require genomics tools such as sequencing technologies and analysis software as well as the training of personnel in genomics and bioinformatics in countries around the world.

Tailwinds and headwinds

Tailwinds

Demand for speed, accuracy, innovation, and scale of testing. The industry's rapid shift toward innovative tests that can be administered anywhere will lead to additional M&A and partnerships.

Post-COVID-19 diagnostics diversification. In the changed world of diagnostics and amid uncertainty about what will be the most in-demand technologies, companies seek to broaden their capabilities.

Possible normalization of valuations. If public markets trend upward while potential sellers become more realistic about valuations, it could release pent-up demand for M&A.

Portfolio shaping. As large diagnostics companies divest noncore divisions to streamline operations, it could create opportunities for private equity investment and other transactions.

Headwinds

The "COVID cliff." Steep declines in COVID-19 testing volume have reduced revenues and left many diagnostic companies scrambling to find new opportunities.

Macroeconomic conditions. Recession, rapid inflation, rising interest rates, and a stock market slump have fueled uncertainty about M&A parameters and future growth.

The take-away

The impact of post-pandemic demand for innovative, decentralized diagnostic testing appears to be in its earliest stages and is likely to have a lasting impact on deal making in this subsector. This is leading to a surge in M&A and partnerships, including between reference laboratory stalwarts and start-ups that send tests and technicians into the home. Investments in wide-ranging

areas—from digital pathology to liquid biopsy—will help shape diagnostics manufacturing. In 2023, we expect a rising volume of deals, especially if buyers and sellers become more realistic about valuations, even as companies grapple with recession, inflation, and the high cost of capital.

²² Source: "COVID-19 Evidence Accelerator Leverages Real-World Evidence in FDA's Response to Global Pandemic," press release, April 20, 2020

²³ Source: "Roche and BMS Partner on AI Development Project," Clinical Insider, March 29, 2022

²⁴ Source: "WHO Releases 10-Year Strategy for Genomic Surveillance of Pathogens," press release, March 30, 2022

Medical devices: Questions remain over rise in demand

Where there's innovation there is opportunity in the year ahead for makers of medical devices. In interventional cardiology, robotic surgery, and some other areas, rapid innovation is improving the outlook for device companies and is likely to lead to additional deal making as industry leaders look to bolster and shape their portfolios. But areas in which there are few new products or technologies, including orthopedics, may lag amid tepid demand for their products and questions about future growth.

Overall, demand improved in 2022, as more patients saw their doctors in person again and scheduled elective procedures that had been delayed by the pandemic. This benefited companies in several device areas, including general and plastic surgery, endoscopies, orthopedics, and cardiology. Yet even now, there are questions about how robust and sustainable that demand may be as patients consider whether certain procedures are really needed or are safe to undergo amid lingering COVID-19 infection risks. Further complicating this bounce-back are labor shortages at many hospitals, which have resulted

in difficulties for patients trying to schedule backlogged elective procedures.

In addition, supply chain bottlenecks have continued to affect manufacturers of medical devices. In 2022, there were shortages of devices for anesthesiology, cardiac care, plastic surgery, radiology, testing, and ventilation, as well as shortages of personal protective equipment.²⁵ Supply problems have driven up costs and put pressure on margins, while inflation and rising interest rates have added to the headwinds for many device companies.

Innovation has been a boon for companies in diabetic care, robotic surgery, and interventional cardiology. But as the number of M&A transactions in the subsector dropped this year, smaller add-ons have largely replaced big mergers, and device companies are focusing on product improvements or expansions to capture more patients, such as Insulet's 2022 launch of the Omnipod 5 for automated insulin delivery for the Type 2 diabetes patient population. In addition, MannKind Corporation acquired the V-Go once-daily insulin delivery device to expand its mealtime insulin delivery solutions.



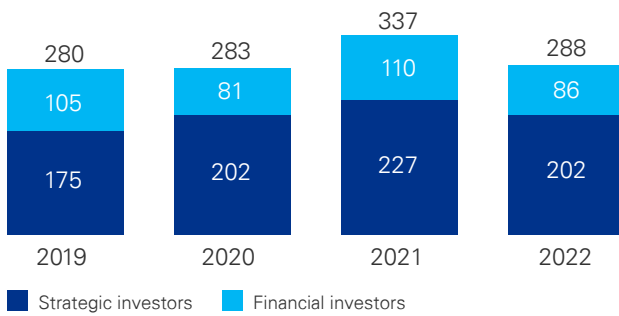
How medical devices fared in 2022

Even during a difficult 2022, 288 medical device company deals were announced. That was down from 337 in 2021, but close to deal volumes in 2019 and 2020 (Exhibit 16). In previous years, our medical devices survey respondents noted significant decreases in the valuations of medical device manufacturers because of

COVID-19. This year, only 15 percent in our survey said they had seen a decrease in valuations in 2022 because of the pandemic. That compares with 66 percent who felt valuations had increased, and 20 percent who said they had stayed the same (Exhibit 17).

²⁵ Source: "Medical Device Shortages During the COVID-19 Public Health Emergency," U.S. Food and Drug Administration, December 2, 2022

Exhibit 16: Medical device companies' strategic and financial investments, 2019-22



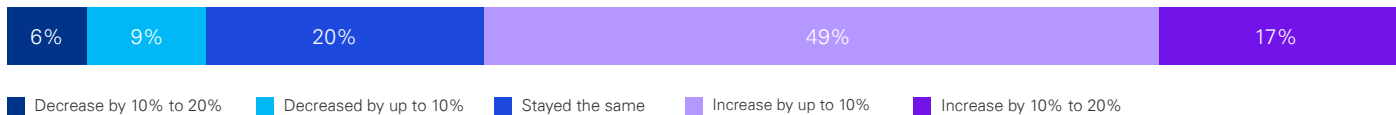
Notes: Biopharma data sourced from Informa and Pitchbook while all other LS sub-sectors' data has been sourced from Capital IQ and Pitchbook; HC data has been sourced from Capital IQ, Refinitiv, and Pitchbook; Annual Biopharma deal outlook publication does not include M&A deal activity with financial investors and includes other non-M&A deals such as Strategic R&D collaborations, outputs will thus differ to this publication; Some of the 2022 deals may be missing due to data lag at the time of publication; YTD as of December 22, 2022

Sources: Capital IQ, Informa, Pitchbook, and KPMG Analysis



Exhibit 17: COVID-19's impact on the valuation of medical device manufacturers has waned

Q: How has the value of elective procedure medical device manufacturers changed due to COVID-19?



Notes: Based on respondents who work/have investment in medical device industry; Respondents were allowed to select all that apply

Source: 2023 KPMG HCLS Investment Survey

These innovations and advances drove the medical devices industry in 2022:

Innovations in cardiac care. Leading device companies moved to bolster their capabilities in cardiology. In a \$16.6 billion deal announced during the fourth quarter, Johnson & Johnson's growing Medtech division acquired Abiomed, a leading maker of cardiac care technology.²⁶ In a \$946 million deal, Medtronic acquired Affera, whose cardiac mapping and navigation platform is used in ablation, a minimally invasive treatment for atrial fibrillation.²⁷ Boston Scientific completed its \$1.75 billion acquisition of Baylis Medical Corporation, which makes advanced components for catheter-based heart procedures;²⁸ and it also acquired privately held Obsidio, manufacturer of a technology recently approved by the FDA to stabilize blood vessel malformations.²⁹

Advances in other device areas. Advances in insulin pumps, continuous glucose monitoring, and hopes for an artificial pancreas are transforming diabetic care, and the market for diabetes-related devices is projected to grow at a double-digit annual rate.³⁰ Deals in this area in 2022 included Tandem Diabetes Care's acquisitions of AMF Medical, which makes a patch pump for insulin delivery, and Capillary Biomedical, a maker of wearable infusion sets for connecting to insulin pumps. Innovations in robotic surgery, minimally invasive surgery, and interventional cardiology devices are also buoying some device makers, and there is also strong interest in 3D printing. In a 2022 deal to add devices for minimally invasive endoluminal surgery, Boston Scientific entered into an agreement to acquire Apollo Endosurgery, while Aspen Surgical Products, owned

²⁶ Source: "Johnson & Johnson to Acquire Abiomed," press release, November 1, 2022

²⁷ Source: "Medtronic Completes Acquisition of Affera," press release, August 30, 2022

²⁸ Source: "Boston Scientific Closes Acquisition of Baylis Medical Company," press release, February 15, 2022

²⁹ Source: "Boston Scientific Announces Acquisition of Obsidio," press release, August 15

³⁰ Source: "Lilly's New Diabetes Management Platform to Integrate Dexcom CGM," MedTech Dive, November 9, 2022

by Audax Private Equity, acquired Symmetry Surgical, a maker of devices for minimally invasive surgery. Wearable tech for remote monitoring of blood pressure, oxygen saturation, falls, and other vital signs continue to gain popularity, and the use of virtual reality for training, pain management, and other applications is increasing.

In 2022, the FDA authorized 91 AI- or machine-learning-enabled medical devices.³¹ With more and more devices connected to the internet, the need for cybersecurity is also getting attention from medical device companies, with blockchain technology expected to be a crucial resource.³²



Outlook and investment considerations for 2023

Looking ahead to 2023, some segments of this industry subsector appear particularly promising. For example, in a 2022 survey of its members by the American Society of Plastic Surgeons, 76 percent reported increased demand for cosmetic procedures compared to pre-pandemic levels, with some 30 percent saying the volume has at least doubled.³³

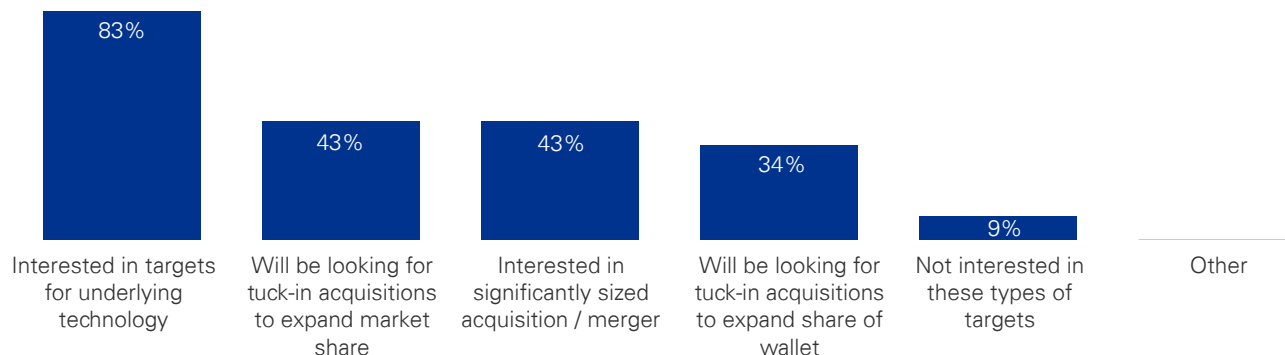
A surge in demand for some device makers could help shape the medical device deal-making outlook. But 51 percent of survey respondents expect medical device deal making to be characterized by small strategic tuck-ins. Only 29 percent anticipate strategic partnerships, and only 20 percent expect large consolidations. In last year's survey, small strategic tuck-ins had only a slight edge over strategic partnerships.

What are acquirers looking for in 2023? Eighty-three percent of elective-procedure device manufacturers say they are looking at targets based on their underlying technology, compared with 43 percent who said they will be focused on tuck-in acquisitions to expand market share or are interested in large-scale acquisitions or mergers (Exhibit 18).

But 88 percent of survey respondents said their plans are being influenced by the FTC's increasing scrutiny of industry consolidation. Concerns about the federal agency's plans led 54 percent of respondents to say they would focus on asset deals, while 40 percent said they would stay away from megamergers. Another 34 percent of respondents said they would favor smaller tuck-in/bolt-on deals, and 31 percent said they would stay away from company acquisitions where there are clear competitive overlaps.

Exhibit 18: How deal makers are looking at elective surgery

Q: To what extent will you be targeting elective procedure medical devices in 2023?



Notes: Based on respondents who work/have investment in medical device industry; Respondents were allowed to select all that apply
Source: 2023 KPMG HCLS Investment Survey

³¹ Source: "5 Takeaways from the FDA's List of AI-Enabled Medical Devices," MedTech Dive, November 7, 2022

³² Source: "Blockchain in Healthcare: 17 Examples to Know 2022," Built In, September 19, 2022

³³ Source: "Survey finds demand for cosmetic surgery, driven by women under 45, surged after the pandemic," Medical Xpress, August 24, 2022

Tailwinds and headwinds

Tailwinds

Resurgence of demand. The resumption of elective surgery and procedures across most medical specialties that began in 2021 continued in 2022 and should encourage deal making for medical device manufacturers in 2023.

Pursuit of early-stage innovation. Major device companies, including Stryker, Olympus, and J&J, have established their own innovation labs and venture capital arms to help develop next-generation technology. In July 2022, for example, Olympus Innovation Ventures completed its first investment, providing Series A funding to Virgo Surgical Video Solutions, whose AI-powered platform records endoscopic procedures and identifies patient candidates for inflammatory bowel disease clinical trials.

Possible normalization of valuations. If public markets trend upward while potential sellers become more realistic about valuations, it could release pent-up demand for M&A.

Headwinds

Pressure on margins. The need to reshore supply chains, among other changes made to improve manufacturing efficiency, is increasing expenses for medical device companies, which have a limited ability to pass along those costs.

Uncertainty about how much elective procedures will rebound. An emphasis on “low touch” noninvasive care could slow the return to pre-pandemic levels of elective procedures.

The ongoing shift to value-based care. This change in reimbursement forces providers to assume more financial risk and could negatively affect markets for new devices that don't have a clear benefit.



The take-away

After a challenging year in which the market value of leading medical device companies fell sharply, this subsector could continue to face headwinds in 2023. As hospitals and other purchasers demand discounts, company margins are pressured by the high costs of reshoring supply lines, and other changes to improve

manufacturing efficiency. But in this environment, M&A is likely to increase as companies focus on product improvements or expansion and look to consolidate their positions in cardiology, diabetic care, and robotic surgery.

Biopharma Services: Strong demand points to optimistic outlook

The ongoing need to develop COVID-19 treatments and vaccines, as well as the resumption of research delayed by the onset of the pandemic, resulted in huge inflows of capital for biopharma services companies in 2021. This led to a surge of M&A. So, it was not surprising that 2022 would fall short of the previous year's high-water mark for deal volume. There were 259 deals announced in 2022, down from 296 the previous year. But deal making activity in 2022 was about 58 percent greater than in 2020, and 44 percent higher than in 2019 (Exhibit 19). The past year also brought a steep drop in the valuations of publicly traded biopharma services companies, whose share prices declined even more than the depressed overall market.

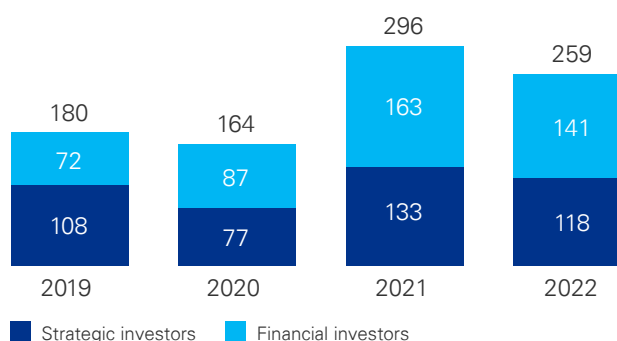
Yet if 2022 was a tough year for much of this subsector, demand for the work biopharma services companies do remains strong, leading to optimism about the outlook for 2023 and beyond in biopharma services. Both major pharmaceutical companies and emerging biotech firms continue to outsource functions at all stages of drug development, from clinical testing of increasingly complex pipeline therapies to securing regulatory approvals and commercializing new therapies. If a recession occurs in 2023, biopharma services companies are likely to outperform the overall market, as they have in past economic downturns. Demand for their services should decline little as pharma companies push ahead in developing lifesaving therapies.

Overall deal making in biopharma services was down 12.5 percent in 2022, vs. 19 percent for all of life sciences. Many of these deals were strategic add-ons to increase capabilities and capacity. Private equity players participated in more than half of the year's deals, with

70 percent of PE activity involving add-ons. Examples included Leonard Green Partners-backed Pace Analytical Services' September acquisition of BioPharma Global³⁴ to expand Pace's regulatory affairs capabilities. In late December, another PE firm, Advent International, agreed to acquire a majority stake in Suven Pharma, a leading CDMO player in India.³⁵

A disconnect between buyers and sellers over valuations may have slowed deal making in the subsector. We believe some larger deals did not occur in 2022 because sellers were holding out for the high valuations of the past two years, while buyers were willing to wait for valuations to come down. In 2023, if the deal market remains depressed, that gap could narrow as companies accept a new reality about valuations.

Exhibit 19: Biopharma services companies' strategic and financial investments, 2019-22



Notes: Biopharma data sourced from Informa and Pitchbook while all other LS sub-sectors' data has been sourced from Capital IQ and Pitchbook; HC data has been sourced from Capital IQ, Refinitiv, and Pitchbook; Annual Biopharma deal outlook publication does not include M&A deal activity with financial investors and includes other non-M&A deals such as Strategic R&D collaborations, outputs will thus differ to this publication; Some of the 2022 deals may be missing due to data lag at the time of publication; YTD as of December 22, 2022

Sources: Capital IQ, Informa, Pitchbook, and KPMG Analysis

³⁴ Source: "Pace Life Sciences Acquires Biopharma Global, Expanding FDA Regulatory Affairs Strategy and Consulting Capabilities to the Biotechnology and Pharmaceutical Markets," press release, September 8, 2022

³⁵ Source: "Advent to buy majority stake in Hyderabad-based Suven Pharma," The New Indian Express, December 27, 2022



How biopharma services fared in 2022

Several trends helped shape growth and acquisition strategies in biopharma services:

Horizontal and vertical integration to facilitate full-service offerings. The R&D pipeline is shifting away from traditional small-molecule therapies and toward advanced molecules such as cell and gene therapies, monoclonal antibodies, and DNA and RNA therapeutics. Because of that shift, CROs and CDMOs looked to broaden their service offerings across all molecule types and to offer deeper capabilities, providing advice and services involving clinical trials, manufacturing, and marketing. In addition, CDMOs are identifying and investing in areas without sufficient capacity, such as lyophilization and fill and finish of vials and prefilled syringes.

Wide-ranging services for well-funded emerging biotechnology companies. These firms are responsible for about 65 percent of the pharmaceutical R&D pipeline, and most of their work centers on advanced molecules. That makes them key customers of CROs, for which they now represent some 60 percent of revenues. And although public markets are currently closed to biotech companies, they continue to be well capitalized, with record support in 2022 from venture capital and ample cash remaining from earlier rounds of funding.

Strong private equity interest driving strategic dealmaking. PE sponsors accounted for more than half of biopharma services deals in 2022. Much of the PE involvement has focused on add-on acquisitions to consolidate niche capabilities, but there have also been carve-out transactions to acquire noncore assets divested by large biopharma sponsors.

Many of 2022's notable deals focused on bolstering capacity and capabilities in crucial aspects of drug development.

Advanced therapeutics. Supply chain bottlenecks and a significant lack of capacity in areas related to manufacturing cell and gene therapies and other advanced therapeutics have led to several deals among biopharma services companies. Recipharm acquired Vibalogics, a viral vector CDMO;³⁶ Archimed acquired a majority stake in Xpress Biologics, a plasmid DNA manufacturer;³⁷ Catalent continued to add to its cell manufacturing capacity through the acquisition of Erytech's commercial-scale manufacturing facility in New Jersey;³⁸ and Great Point Partners acquired cell manufacturing CDMO Performance Cell Manufacturing, which will operate as Cellpoint Bioservices.³⁹

Regulatory challenges. Today's shift toward more complex therapies has complicated regulatory strategies and increased the need for expertise and sophisticated platforms in this area. Addressing such needs, Blackstone and CPP made a majority investment in Advarra, a provider of regulatory, quality, and compliance solutions and clinical trial technologies. Advarra provides services that can help drug developers navigate regulatory requirements at all stages of drug development—from institutional review board (IRB) approvals required to launch clinical trials to institutional biosafety committee (IBC) and other research quality and compliance services.⁴⁰ In another transaction, ProPharma Group acquired OneSource Regulatory.⁴¹

Commercialization services. The rise in accelerated approvals during the pandemic has increased the demand for efficient commercialization capabilities. Novo Holdings' acquisition of Medical Knowledge Group, an analytics-driven marketing platform, responds to the need for multichannel communications that can help complex therapeutics reach the market.⁴²

³⁶ Source: "Recipharm Expands its Advanced Therapy Medicinal Products Offering into Virotherapies with the Acquisition of Vibalogics," press release, February 18, 2022

³⁷ Source: "ArchiMed Acquires Majority Stake in Xpress Biologics," PE Hub, October 25, 2021

³⁸ Source: "Catalent Acquires Commercial-Scale Cell Therapy Facility from Erytech," press release, April 25, 2022

³⁹ Source: "Great Point Partners Strikes Deal for Cell Therapy CDMO," Pharmaceutical Commerce, January 19, 2022

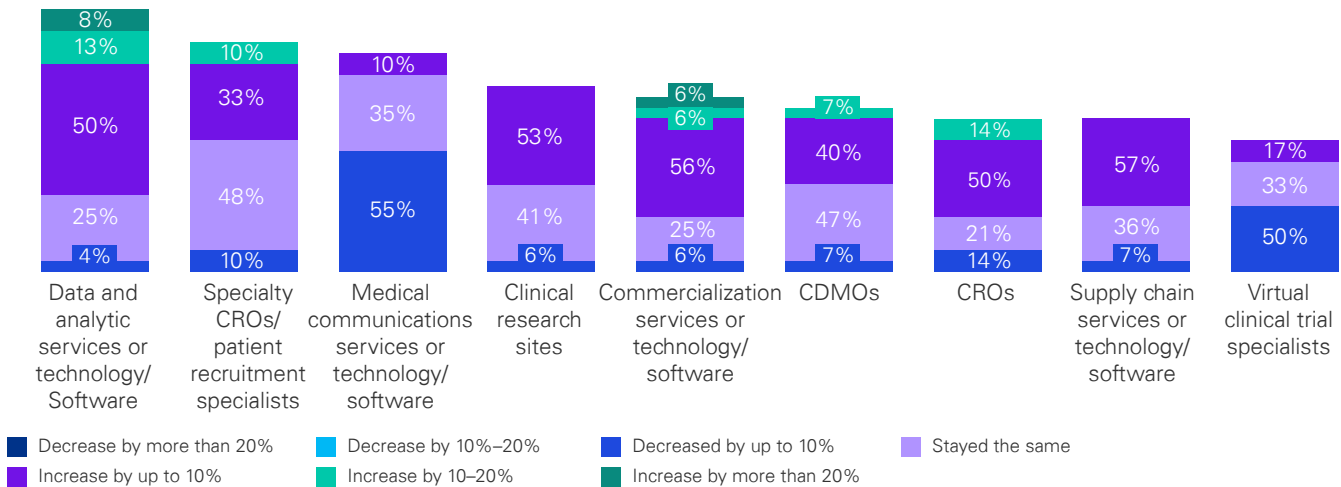
⁴⁰ Source: "Advarra Secures Major Investment from Blackstone and CPP Investments," press release, June 10, 2022

⁴¹ Source: "ProPharma Group Acquires OneSource Regulatory," press release, August 23, 2022

⁴² Source: "Novo Holdings to acquire Medical Knowledge Group," press release, January 3, 2022

Exhibit 20: Investors see a mixed outlook for valuations

Q: How do you expect valuations to compare to previous years?



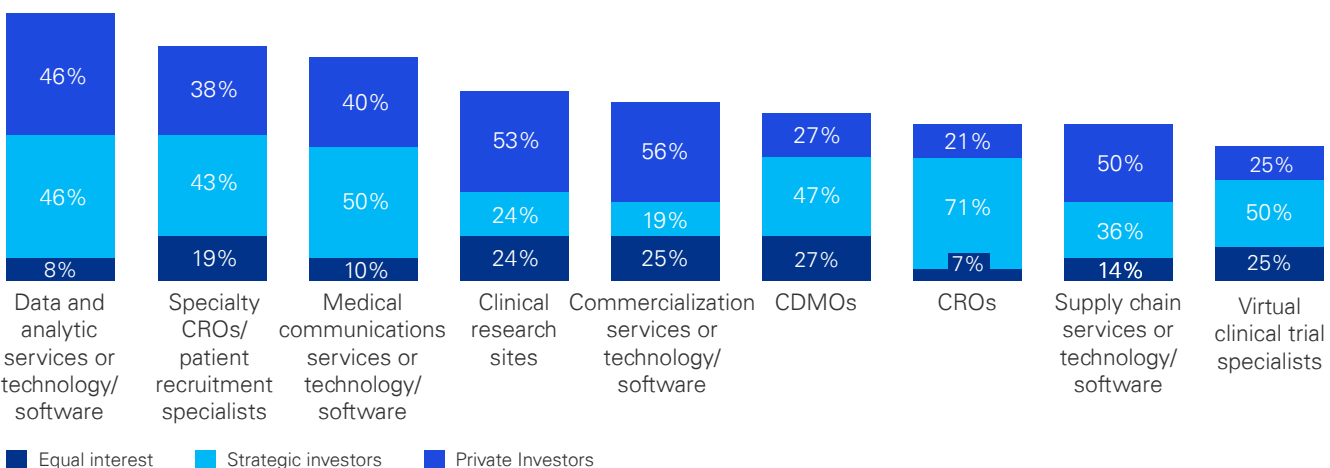
Notes: Based on respondents who work/have investment in pharma/diagnostic lab services' industry; Column total based on selection in Q39
Source: 2023 KPMG HCLS Investment Survey

In our survey, respondents predicted that valuation changes for biopharma services companies would vary from industry segment to segment. Seventy-one percent expected an increase in valuation for companies providing data and analytic services or software, 68 percent foresaw an increase for companies providing commercialization services, and 64 percent expected

valuations of CROs to go up. But valuations for medical communication services companies and specialty CROs were generally expected to hold steady (Exhibit 20). According to the survey respondents, the top three areas for M&A activity in the subsector in 2023 are likely to be data and analytic services or software, specialty CROs, and medical communications (Exhibit 21).

Exhibit 21: Where different kinds of investors are focusing

Q: Where do you believe the majority of investment interest will be in 2023?



Notes: Based on respondents who work/have investment in pharma/diagnostic lab services' industry; Bar total based on respondents who gave some rank to the given service
Source: 2023 KPMG HCLS Investment Survey

Tailwinds and headwinds

Tailwinds

Outsourcing from biopharma. The biopharma industry's strong need to fill its early-stage pipeline creates growth opportunities for the biopharma services companies that handle much of that outsourced work.

A scarcity of talent. The high-level personnel needed to develop today's complex therapeutics, and capacity shortages in many areas of research and manufacturing, are motivating companies to seek acquisitions that can help relieve the strain.

Recession resistant. In addition to serving a recession-resistant industry, biopharma services companies may be helped during difficult economic times by their variable cost structures, balance sheet flexibility, and high free cash flow conversion rates. In past recessions, these companies have outperformed the S&P 500.

Headwinds

Valuation uncertainty. High valuations and a disconnect between buyers and sellers continue to hinder dealmaking.

Deal-making impediments. Rising interest rates, higher borrowing costs, and ongoing supply chain issues add to buyers' reluctance.

A scarcity of talent. While also serving as a tailwind, motivating M&A, shortages of top-level scientists impede companies' capacity to provide needed services before and after acquisitions.



The take-away

The outlook for companies in this subsector in 2023 and beyond seems bright, thanks to strong demand from drugmakers that depend on services companies to handle the ever-increasing complexity of developing advanced therapeutics, conducting clinical trials, obtaining regulatory approvals, and commercializing

new therapies. Investors in our survey were particularly interested in medical communications and specialty CROs, as well as data and analytics services and software and supply chain services. As in 2022, future deals are likely to focus on bolstering capacity and capabilities in crucial aspects of drug development.



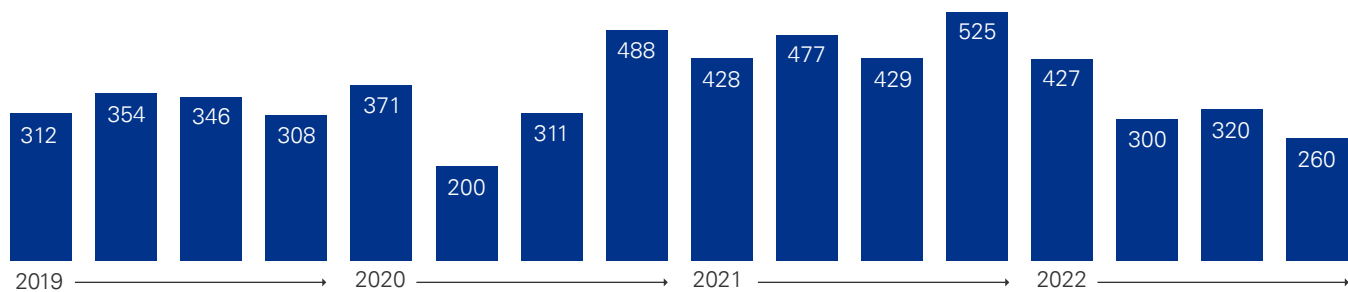
Healthcare

Disruptions and uncertainty slow healthcare M&A

After rising sharply in 2021, the volume of healthcare mergers and acquisitions slowed by roughly 40 percent in 2022, returning to a pre-COVID pace in the fourth quarter (Exhibit 22). Some huge deals were made, but in each of

the four subsectors we discuss, the volume of strategic and private equity deals declined as powerful trends shifted industry dynamics and raised new uncertainties about growth prospects.

Exhibit 22: Deal volume per quarter in 2022 was roughly in line with pre-pandemic rates



Notes: Biopharma data sourced from Informa and Pitchbook while all other life sciences sub-sectors' data has been sourced from Capital IQ and Pitchbook; HC data has been sourced from Capital IQ, Refinitiv, and Pitchbook; Some of the 2022 deals may be missing due to data lag at the time of publication; YTD as of December 20, 2022
Sources: Capital IQ, Refinitiv, Pitchbook, Informa, KPMG analysis, through December 22, 2022

In the U.S., most federal and state support meant to bolster providers during the pandemic came to an end. Supply chains already disrupted by the pandemic were battered anew by the Russian government's invasion of Ukraine. Inflation hit a 40-year high, straining the budgets of healthcare consumers, suppliers, and providers. In many care settings, labor costs rose faster than inflation, in part because of shortages of nurses and other skilled workers. In the U.S., federal reimbursements for care, which influence the reimbursements of many other payers, have not kept pace with many providers' rising costs. Higher interest rates have reduced the leverage

of many acquirers and put additional pressure on some providers' operating results, especially those holding variable rate debt.

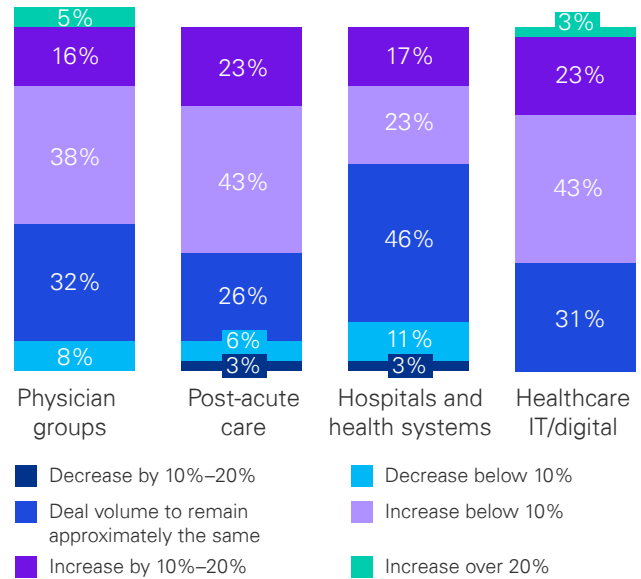
This is a difficult time for U.S. business, but healthcare is an industry that tends to be resilient in economic downturns. And M&A offers hope to many companies: they can join forces to scale up and find efficiencies, acquire similar companies to gain access to new markets, offerings, or talent, or sell to a larger entity with the resources to keep the doors open. Private equity investors can roll up less-efficient providers and streamline operations to boost performance.

In 2023, we expect intense financial pressures to continue in the sector, forcing even some of the largest companies to look for M&A opportunities. We expect many acquisitions to be small-scale deals: a majority of our survey respondents anticipate more deal activity in physician groups, home health and hospice, and healthcare IT (Exhibit 23). Most respondents also expect valuations to rise in hospitals and decline in home care and hospice. And two-thirds rank healthcare technology as a top investment priority for 2023.

Another expected M&A trend: big companies outside the industry will continue to look for inroads into brick-and-mortar care and healthcare IT. And we expect private equity investors to come off the bench and make targeted acquisitions.

Exhibit 23: Most survey respondents expect increases in deal activity in physician groups, home health & hospice, and healthcare IT

Q: What magnitude does your firm plan to increase or decrease M&A deal activity for 2023 compared to 2022, as measured by number of transactions?



Source: KPMG HCLS Investment Survey 2023

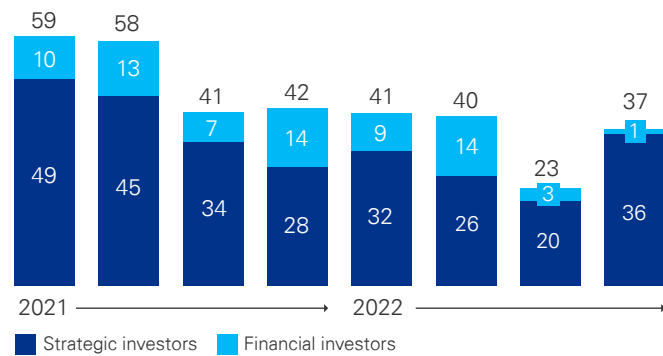


Hospitals and health systems: New challenges arise

Hospital and health system employees worked crushing hours and braved serious health risks in the fight against COVID-19, earning the public’s respect and gratitude. That admiration endures, and hospitals and health systems remain vital to every community, but the flood of federal dollars into the healthcare system that helped providers make it through the pandemic is drying up. This leaves hospitals and health systems without the extra financial support that kept them going in the past two years, even as they face much higher costs for labor and supplies and energy, and other challenges. Hospitals and health systems also face top-line challenges. For some, shortages of nursing staff and other employees have limited their ability to fully capitalize on rebounding demand for non-elective procedures. At the same time, more procedures are being done outside critical care settings. For many hospitals and health systems, M&A may be the best

way to avert financial disaster. Nevertheless, deal volume declined in the last half of 2022 (Exhibit 24).

Exhibit 24: Deal volume declined in the second half of 2022



Notes: Strategic investments include deals undertaken by a public/private company with no major private equity backing; Financial investments include platform/add-on deals undertaken by private equity (PE) firms; Includes deals with only US-based Targets; Some of the 2022 deals may be missing due to data lag at the time of publication; YTD as of December 22, 2022
Sources: Capital IQ, Refinitiv, Pitchbook, KPMG analysis



How hospitals and health systems fared in 2022

In 2021, net income for U.S. hospitals fell by more than \$50 billion.⁴³ In 2022, sharply higher costs for supplies, capital, and especially labor squeezed many systems’ operating income to a vanishing point. Meanwhile, competition continues to rise as outpatient providers and technology allow more patients to receive care outside traditional hospital settings.

The impacts have been profound. CommonSpirit Health, a nonprofit, finished its fiscal year with a negative 3.8 percent operating margin and a net loss of \$1.85 billion compared to a net gain of more than \$5 billion in the previous 12 months.⁴⁴ Ascension, one of the nation’s

largest nonprofit systems, reported a billion-dollar net loss for the year ended June 30, down from net income of \$1.2 billion in the previous year.⁴⁵ An array of other brand-name providers reported operating losses in their most recent quarters, including Cleveland Clinic and Sutter Health. Some payer-provider organizations reported significant operating losses, while others saw steep drops in margins. The University of Pittsburgh Medical Center (UPMC), for example, reported an operating margin after taxes and interest expense of just 0.4 percent in the third quarter, down from 3.7 percent in 2021.

⁴³ Source: “Financial Effects of COVID-19: Hospital Outlook for the Remainder of 2021,” Kaufman Hall research for the American Hospitals Association, Sept. 2021

⁴⁴ Source: “CommonSpirit Health loses near \$2B in 2022,” Modern Healthcare, Sept. 23, 2022

⁴⁵ Source: “Ascension posts \$1B net loss for 2020,” Healthcare Dive, Sept. 18, 2020

As inflation and supply chain challenges persist, hospitals will likely have to keep paying relatively high prices for goods and services, but the bigger challenge for most providers will continue to be attracting and retaining staff at all levels. Certain health systems in markets with organized labor are facing additional challenges in negotiations with unions. Pay inflation may be slowing, and some nurses are returning to their home markets after traveling for higher pay, but many caregivers continue to leave hospital settings for ambulatory and ancillary providers that promise similar pay but a better work-life balance.

In addition, more healthcare services will continue to be provided outside traditional hospitals, in non-acute ambulatory settings, including urgent care and outpatient centers, as well as at home, supported by remote and virtual care. This will slow hospital admissions that are vital for financial stability. And as the trend to value-based care continues, more providers will partner with insurers and take on risks.

We expect financial pressures will force even some of the largest systems to look at opportunities to gain scale, find efficiencies, and add revenue streams through creative joint venture models, traditional M&A, and acquisitions of physician practices and other ancillary and nonacute providers. This will leave many smaller hospital systems with stark choices: create a new stripped-down model of care with a partner, be acquired, or explore other strategic options including closure.

“ In some situations, the challenges in the labor market...constrained our capacity, preventing us from delivering hospital services to certain patients.”

— HCA CEO Sam Hazen, speaking to investors in April 2022



The year in M&A

Deal volumes in the subsector declined in 2022 after an exceptional year of M&A in 2021. As noted, the number of private equity and strategic transactions fell by more than 40 percent from 2021 to 2022. Major transactions in 2022 included:

- The merger of Beaumont and Spectrum in January, which created the largest healthcare system in Michigan. Now known as Corewell, it is comprised of a health insurance company and 22 hospitals with more than \$12 billion in annual revenue.⁴⁶
- Intermountain Healthcare completed its merger with SCL Health in April, creating a nonprofit that provides health insurance to a million people in Utah and Idaho while employing more than 59,000 caregivers in 33 hospitals and 385 clinics across seven states.⁴⁷
- BCBS Michigan announced that it would acquire AmeriTrust from Fosun, a Chinese conglomerate, to diversify its offerings to include workers’ compensation, commercial packages, and even automotive business.
- In the biggest third-quarter deal, UChicago Medicine said it reached an agreement to acquire a controlling interest in AdventHealth’s Great Lakes Region, which includes four hospitals in the Chicago area. AdventHealth will retain partial ownership and manage daily operations of the facilities.
- Advocate Aurora and Atrium Health completed their combination in December 2022, creating the fifth-largest nonprofit healthcare system in the country, Advocate Health, with 67 hospitals, 21,000 physicians, more than 40,000 nurses, and annual revenues of \$27 billion.

⁴⁶ Source: “Spectrum, Beaumont hospital systems sign merger deal,” [axios.com](https://www.axios.com/2021/06/17/spectrum-beaumont-merger/), June 17, 2021

⁴⁷ Source: “Intermountain Healthcare and SCL Health Complete Merger,” Intermountain press release, April 5, 2022

- Pure Health, based in the United Arab Emirates, reported in September that it would buy a minority stake in Ardent Health Services for \$500 million. Ardent, based in Nashville, operates 30 hospitals in six states.
- Trinity Health, one of America's largest Catholic systems, completed its acquisition of MercyOne, an Iowa-based system, in September. Trinity had jointly operated MercyOne under an agreement with CommonSpirit Health, but the systems struck a deal in April for Trinity to acquire all of MercyOne's facilities and assets, including MercyOne's 16 medical centers and more than 400 sites of care.

Major retailers continued to make inroads into healthcare services in 2022. Examples include Walgreens' nearly \$9-billion acquisition of Summit Health and its CityMD urgent care clinics. CVS, a healthcare company with a strong retail footprint, agreed to spend \$8 billion to acquire Signify Health and its network of 10,000 providers in all 50 states, and Amazon paid \$3.9 billion in cash for One Medical, a primary care provider.

Pittsburgh-based UPMC has partnered with Redesign Health to found Pip Care, a startup that helps patients prepare for and recover from surgery. The objective of its pilot program is to enable patient access and improve compliance with therapies required post-surgery. The

partnership reportedly raised \$65 million in September from investors including CVS Health Ventures and General Catalyst.

Not all sellers could find partners or buyers in 2022. In November, Atlanta Medical Center, a 460-bed "safety net" hospital owned by Wellstar, closed its doors after what it called an exhaustive search for partners and discussions with state, local, and community officials.

With a more vigorous antitrust approach in Washington, along with opposition from some state legislatures, many dealmakers have become more cautious, especially about M&A within markets. Several proposed large deals were abandoned in 2022 after opposition from the Federal Trade Commission. Examples include:⁴⁸

- The acquisition of Saint Peter's Healthcare System by RWJBarnabas Health, one of New Jersey's largest providers
- The merger of Lifespan, Rhode Island's largest healthcare system, with Care New England, also based in the Ocean State

Despite these and other troubled deals, we are hopeful that the Federal Trade Commission may become less stringent as it balances antitrust concerns against communities' healthcare needs and the rising financial challenges faced by health systems.



Outlook for M&A in 2023

Many hospitals and health systems, including some of the largest, believe they need to gain scale to thrive in today's marketplace, which we expect will drive more consolidation. While many private equity investors may shy away from the subsector, some creative PE firms may look for assets at lower multiples where careful management and wise investments—especially in technology—could streamline operations, increase efficiency, and improve overall operating results.

Among strategic investors, we believe well-managed health systems will have strong rationales and the resources to acquire or forge alliances with other providers in 2023, particularly those in other regions rather than the same market.

Many in-market deals are likely to be in the form of joint ventures or other partnerships as health systems partner to improve access and efficiency, especially

⁴⁸ Source: "These proposed hospital mergers and acquisitions collapsed. Here's why," ChiefHealthcareExecutive.com, Sept. 2, 2022

in competitive markets and service lines that do not typically drive positive margins. We anticipate an increase in in-market deals as hospital systems build out ancillary offerings in urgent care and other areas. One example is Nashville-based HCA Healthcare's acquisition of MD Now and its 59 urgent care centers in Florida, adding to its more than 400 affiliated sites across the state, announced in January 2022.⁴⁹

Many health systems will continue to explore nontraditional partnerships and M&A opportunities as

they increase nonacute ambulatory and virtual care options, and push further into taking on risk in exchange for a portion of premiums. Targets with innovative care models, unique technological capabilities, and supporting data analytics will look especially attractive. For providers taking on risk, the rise of Medicare Advantage (MA) is an opportunity to diversify their business models by launching health plans with or without partners. After a 9 percent rise in enrollment in 2022, MA may surpass 50 percent of the eligible Medicare population as early as 2023.

Tailwinds and headwinds

Tailwinds

Demographics. Aging populations will need more care.

Respect. More consumers and policymakers now recognize that hospitals and health systems are crucial bulwarks against lethal threats, including pandemics.

Headwinds

Operating margin challenges. Pressures will include inflation, high supply and labor costs, and limited availability of clinical and nonclinical staff.

Reimbursement growth could continue to trail cost increases. The rising costs of supplies and labor could continue to squeeze margins.

Some safety net systems will struggle.

Unemployment may rise in some communities, with associated rises in poverty and the numbers of uninsured.

Pricing pressures. Hospital price transparency went into full effect in 2022, yielding data that may spark pricing demands from consumers and drive changes in their behavior.

Federal support weakens. The return of sequestration and the potential end of the public health emergency in April 2023 could eliminate revenue sources that helped many hospitals and health systems mitigate many challenges during the pandemic.

Balance sheet concerns. Interest income and investment portfolio gains will be subject to interest rates and market return volatility.



The take-away

The costs of supplies, capital, and staff are likely to continue to exceed revenues at many hospitals and health systems. This will put more pressure on them to find new growth opportunities and partners. While the volume of deals declined in 2022, some large transactions were announced and completed. Some investors may pull back from the subsector in 2023, but we expect to see megadeals. Creative PE firms may find

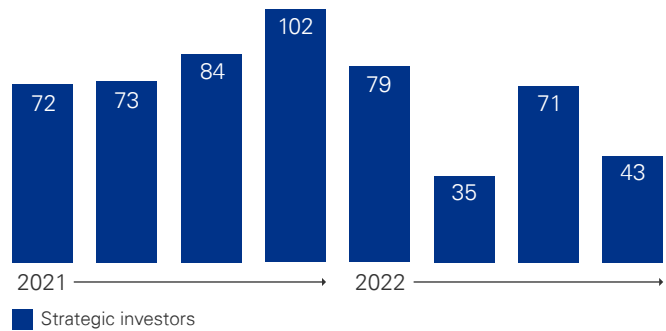
assets at lower multiples, for example, where careful management and wise investments could significantly improve operating results. Some well-managed health systems will look to acquire or forge alliances with other providers in 2023—especially those in other regions to avoid antitrust concerns. We anticipate in-market deals as health systems strive to improve access and efficiency.

⁴⁹ Source: "HCA Healthcare Purchases MD Now Urgent Care With Its 59 Locations in Florida," press release, Jan 24, 2022

Physician practices: Continuing to offer value

Powerful trends in healthcare are transforming physician practices—and spurring M&A. More care is shifting from hospitals to outpatient settings, for example, providing new opportunities for specialty practices. Challenges that encourage sales by physician groups and practices include relentless paperwork, particularly for negotiating with payers, and the shift to value-based care. For these and other reasons, we expect physician practices in select specialties to remain attractive to investors, as they were in 2022, when more than 70 deals were made in two quarters, in line with 2021 transaction volume (Exhibit 25).

Exhibit 25: Physician practice deal volume declined in 2022



Notes: Strategic investments include deals undertaken by public or private companies with no major private equity backing; Financial investments include platform and add-on deals by PE firms; Includes only deals with US-based targets
Sources: Capital IQ, Refinitiv, KPMG analysis



How physician practices fared in 2022

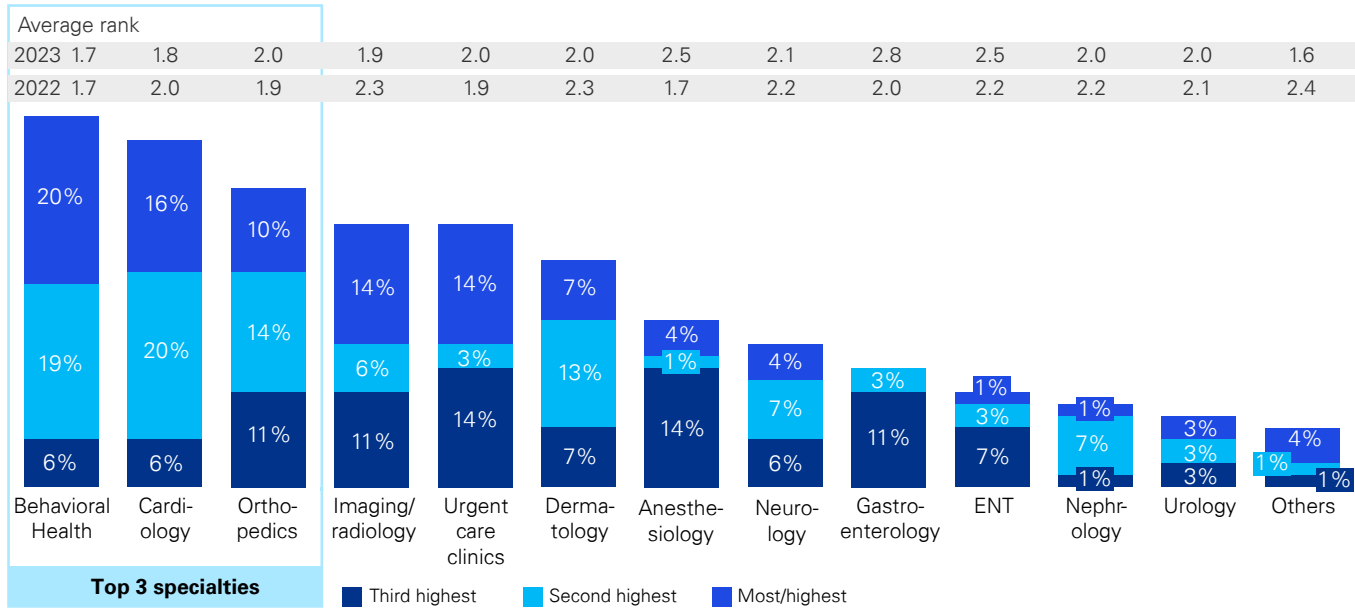
Patient volume remained high in physicians' practices across specialties, thanks to low unemployment, which means a high percentage of families have health insurance. Some specialties still have backlogs of elective surgeries from COVID-19, but most volumes have returned to pre-pandemic levels. Clinical staffing challenges and continued pressure on labor wage rates have resulted in margin compression for certain practices across a range of specialties. Even with Medicare reimbursement changes, higher borrowing costs, and concerns about a recession, physician practices remained attractive both to investors and strategic acquirers looking to expand their offerings and enter new markets.

With the continued shift of medical services from hospitals to outpatient settings, rollups continued in specialties such as women's health, oncology, and urology. Behavioral health and physical therapy also attracted buyers in 2022, and we see rising interest in cardiology, nephrology, neurology, and podiatry. Survey respondents identified behavioral health and cardiology as likely to attract the most investment, followed closely by urgent care, dermatology, and imaging (Exhibit 26).

Sharply higher interest rates are exerting downward pressure on multiples in most specialty platforms. There is additional scrutiny on some specialties that rely heavily on Medicare given the potential for reimbursement adjustments.

Exhibit 26: Respondents expect more investments in behavioral health, cardiology and orthopedics

Q: Given historically higher investment levels in certain specialties, what specialties do you see as most likely for investment in the next 12-24 months?



Notes: Based on respondents who work / have investment/have expertise in physician groups; Others: Primary care
Sources: 2023 KPMG HCLS Investment Survey, 2022 KPMG HCLS Investment Survey

The long-term trend toward value-based care will continue to drive business model changes in some specialties. Across government and managed care payers—commercial and Medicare Advantage—primary care is leading the way, with nephrology and women’s health close behind. We also see growing interest in behavioral health, cardiology, and oncology.

In many specialties, successful value-based care means managing a defined chronic condition population to justify taking on a risk-sharing model. The most successful acquirers of value-based care practices will have the infrastructure and knowhow to manage patient utilization and boost efficiencies for scalability and cost containment. Many will also work closely with payers to facilitate shifts to different forms of risk-based contracting over multiple years while making sure the contracts align both parties.



The changing M&A landscape in 2022

Physician group transaction volume returned to pre-pandemic levels in 2022—an average of 57 strategic deals per quarter compared to more than 82 in 2021. Many acquirers are still integrating what they bought in the last couple of years, especially those that closed deals when valuations were at or near their peaks. In some cases, integration costs have exceeded expectations, especially in staffing. Other strategic deal makers and PE players are keeping their powder dry as they anticipate a recession and wait for higher-quality assets to come to market.

Some sectors have Medicare concerns due to announced cuts to the physician fee schedule, although reimbursement impact will vary by specialty based on relative value unit (RVU) weights, which have not yet been determined for fiscal year 2023. Performance improvements are more important than ever as upticks in labor and supply costs exceed revenue growth given continued pressure on reimbursement despite consistent volume demand.

Most of 2022's deals were for specialty practices rather than primary care providers. Indeed, the year's

largest transactions were for practices in specialties that have fully transitioned to outpatient procedures and have already seen major consolidations, such as gastroenterology, dermatology, dental, and ophthalmology. For example, in February OMERS Private Equity sold its interest in Forefront Dermatology to Partners Group, which valued the company at about \$1.5 billion. In September, Apollo made a \$785 million investment in a “long-term strategic partnership” with GI Alliance, the nation's largest gastroenterology practice management company, valuing the business at \$2.2 billion.

In July, Amazon announced that it would acquire One Medical for \$3.9 billion in cash. The digital giant sees healthcare as “high on the list of experiences that need reinvention,” and aims to improve it by using the complementary strengths of virtual and in-person care. In Q4, Walgreens' VillageMD signed a deal to buy Summit Health for \$8.9 billion, the largest physician deal of the year, which should greatly increase Walgreens' footprint in primary, specialty, and urgent care across existing and new markets.

Four common reasons private equity invests in physician practices

1

Multiple arbitrage

Buying a strong platform company at a higher multiple, and completing well-executed add-ons at lower multiples, can generate impressive returns and decrease the average purchase price.

2

Payer uplift

Using scale to negotiate better rates can deliver an immediate boost to the acquired practices.

3

Ancillary services

Adding a layer of new ancillary services to capture new sources of revenue with the same number of physicians immediately boosts the value of acquired add-on practices.

4

Operational improvements

Optimizing and integrating operations to streamline costs, including physician incentive alignment, can drive profitable growth.



Outlook for M&A in 2023

In the year ahead, we expect strong deal volume in physician practices despite four main headwinds: relentless and costly challenges in recruiting and retaining clinical talent, higher capital costs and declines in leverage, lower valuations that may discourage some sellers, and declining Medicare reimbursement.

Consistent with other industries, recruiting and retaining clinical and nonclinical staff continue to be critical concerns for physician practices. Some groups have used temporary and permanent placement staffing agencies to address gaps, but many practice leaders are looking to reduce their reliance on agency staff as the higher costs are not sustainable.

Many practices also find nonclinical positions hard to fill. In July 2022, the Medicare physician fee schedule had the sharpest reduction ever. Given inflation impacts across all cost categories, the announced cuts are concerning for physician practices and could make some potential targets less appealing. Commercial reimbursement is often contractually tied to Medicare fee schedules, which could spur some practices to renegotiate or carve out rates for select services to reduce impact to total revenue.

We expect some consolidation, beginning mostly with the lower-middle market and specialties that are still relatively fragmented. Some ambitious investors may try to build large cardiology or podiatry platforms, for example, but considering challenges in debt markets, we do not foresee many billion-dollar deals for specialty groups. Instead, we expect more strategic bolt-ons as companies work to gain scale, financing acquisitions from their strong balance sheets.

The deal space will get broader as acquirers look to roll up smaller practices. Some with just one or two doctors will consider joining a large platform and get a capital infusion without giving up their autonomy. Certain specialty providers now working in hospitals, for example, may look for investors who will help them

set up their own freestanding practices with ambulatory assets to provide care outside of the hospital.

Indeed, many strategic and PE acquirers will assess targets based on the shift from the hospital to the clinic and to outpatient care. Some private equity investors expect new “care coordination” requirements that could spur primary care providers to seek specialty providers, such as in kidney care, that would dovetail with larger systems.

Potential acquirers have been making more inquiries about cardiology, women’s health, and other specialties, and we expect many of them to pursue deals in 2023 as more economic and political questions are settled. A recession could have significant impacts on valuations, for example, since commercial insurance coverage would likely decline due to lay-offs and unemployment. More lenders may get off the sidelines, but many of them may remain relatively risk-averse and will be more willing to finance higher-quality smaller-sized deals.

Many platforms are making performance and operational improvements to stay profitable and provide patient care more efficiently in an environment with high inflation and labor costs. Higher interest rates and a recession could loosen the labor market, but we still expect labor costs to exceed pre-pandemic levels. In many cases, acquirers must expand margins to counteract reimbursement and cost pressures. Likely areas for improvements include reimbursement rates, referral patterns and share of wallet of services, physician productivity/compensation alignment, and optimization of MSO organization.

Technology will play increasingly important roles in some physician practices. Telehealth utilization, for example, has remained high even as COVID-19 concerns have faded, creating opportunities for physicians to diversify revenue streams. How much telehealth contributes to revenues and earnings will depend on telehealth reimbursement rates, which since 2020 have been protected through Medicare’s public health emergency.

Tech investment has fallen from COVID-19 peaks, but is still far above pre-pandemic rates, helping maintain margins across service areas. While utilization is likely to expand with advances in the Internet of Things, we do not expect many physician practice deals to be driven by telehealth in the near term.

While these headwinds present uncertainty that could delay investor interest, physician practices remain ripe for investor activity as the assets are positioned well to drive the shift to value-based care and address patient engagement.

Tailwinds and headwinds

Tailwinds

Staffing. Some physician practices are recruiting hospital staff looking for more manageable and consistent hours; others are taking creative new approaches to staffing, such as helping caregivers work at the “top of their licenses,” and training nonclinical workers to provide more support to nurses.

Measurable impact on health. Physician practices appeal to investors in part because they are nimbler than hospital-driven health systems, many are ready to partner with payers to shift risk and move toward value-based care, and they have direct patient contact, the foundation of improving health.

Headwinds

Staffing. As in nearly every other industry, recruiting and retention in clinical and nonclinical roles will remain a major concern. Many physician practices will tap temporary and permanent placement staffing, but more practice leaders aim to rely less on agencies because the higher costs are not sustainable.

Reimbursement. In July 2022, the Medicare physician fee schedule had the sharpest reduction ever, and commercial reimbursement can be contractually tied to Medicare fee schedules. Given inflation across all cost categories, these cuts have raised concerns in physician practices and could make some potential targets less appealing.



The take-away

Physician practices will continue to appeal to investors as care shifts to outpatient settings. Scale will become more important in managing paperwork and negotiating with payers, and the long-term trend towards value-based care will drive more changes in business models. As in other subsectors, recruiting and retaining staff

present challenges. Medicare’s sharp cuts in physician fee schedules could make some potential targets less appealing. We expect some consolidation, beginning with the lower middle market and specialties that are still relatively fragmented.

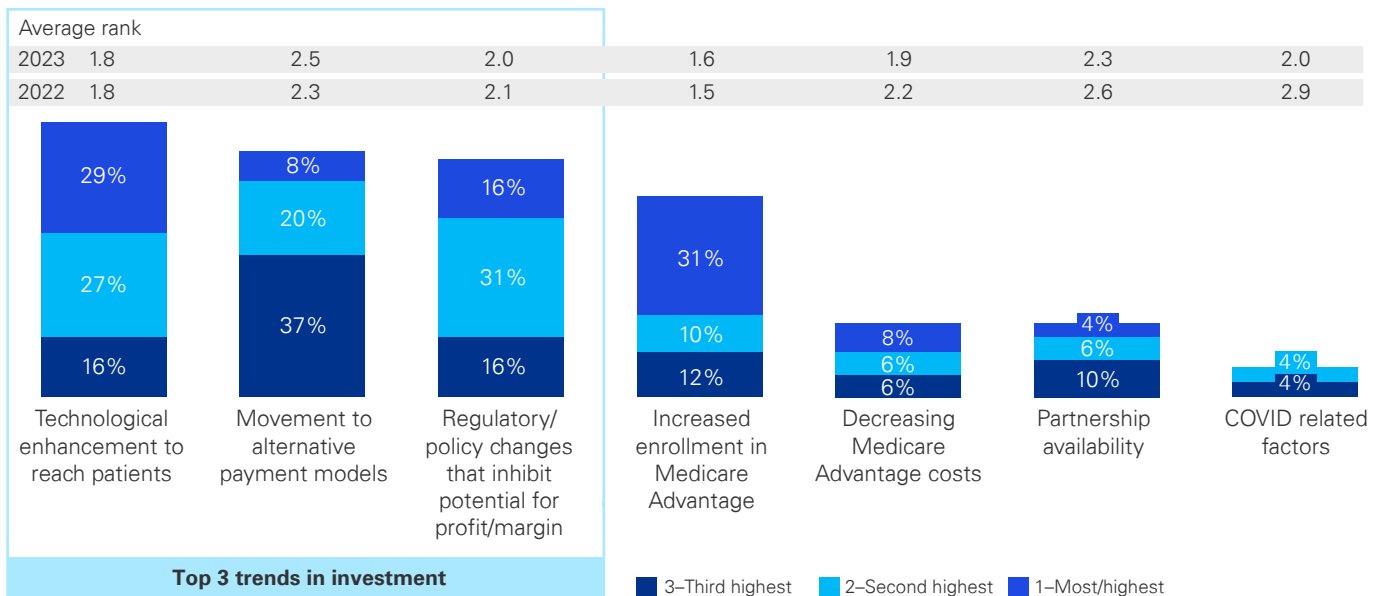
Home health and hospice: Promising long-term outlook, but a decline in deal making

As the population ages and more patients develop chronic diseases, home healthcare and hospice are increasingly important to patients and their families. Payers also tend to prefer care delivery outside hospital settings because it is less expensive. Many providers, including hospitals, are looking for opportunities to partner with or acquire home health and hospice assets to expand their continuum of care. Expertise and scale are major advantages in these businesses, making them appealing to larger players and spurring rollups and other M&A activity in the space.

About seven in ten of our survey respondents believe that patient-facing technology may drive investment and growth in home health. In addition, two-thirds see significant movement to alternative payment models such as direct contracting and specialty-based bundles as a significant trend, while 63 percent indicate that regulatory or policy changes could restrict profits and margins (Exhibit 27).

Exhibit 27: Seven in ten respondents expect technologies designed to reach patients may be the key driver of investments and growth in home health

Q: What are the most significant trends that may increase growth and/or investment in post-acute care practices?



Notes: Based on respondents who work/have investment/have expertise in Post-acute care industry
Source: 2023 KPMG HCLS Investment Survey



How home health and hospice businesses fared in 2022

The healthcare marketplace will continue to be unusually volatile, and powerful trends now in play will likely continue. Most patients and payers prefer telehealth and healthcare at home to hospital care, for example, and the subsector remains relatively fragmented, creating growth opportunities for skilled providers. Interest rates will continue to rise, putting new pressures on providers with variable debt and reducing the leverage of potential acquirers. Attracting and retaining staff will likely continue to pose challenges even if a recession raises unemployment.

Many home health deals include hospice offerings, although the two subsectors' appeals to investors see-saw based on shifting reimbursement schedules. Some acquirers expect synergies in colocated home health and hospice offerings, but the patient demographics are so different that many acquirers have not delivered on that promise. And since reimbursement caps generally keep margins narrower in hospice, the most successful acquirers in that space tend to be skilled operators. Many larger companies are separating the two businesses.

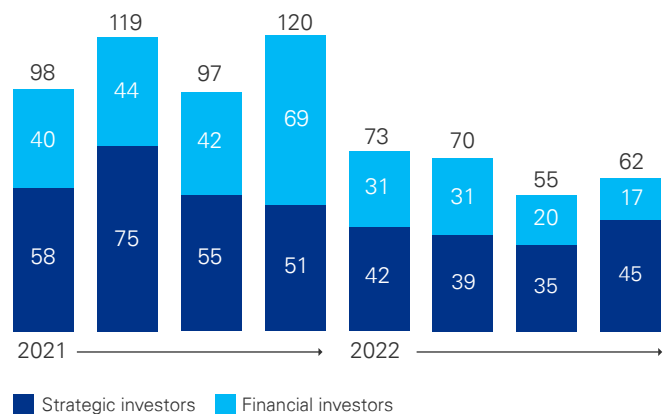
For-profit hospitals continue to look for vertical integration opportunities through acquisition in home health and hospice. Private equity funds continue to roll up small, less efficient assets. Many brick-and-mortar post-acute providers are investing in home health and hospice to provide a broader continuum of care outside their traditional settings.

A new challenge has emerged, however. In the U.S., the Centers for Medicare & Medicaid Services (CMS) on October 31 announced that it would raise Medicare home health payments by just 1.7 percent for 2023. That was far better than the agency's original proposal for deep cuts but still came as a blow to the providers whose costs have risen. Enhabit, for example, with more than 350 home health and hospice locations in 34 states, reported in the third quarter that home health revenue per episode increased 3.2 percent while cost per visit rose 5.7 percent, in part because of higher staffing costs. Meanwhile, more seniors are moving from traditional Medicare into Medicare Advantage programs, which

traditionally provide lower reimbursements for home health services.

In this shifting environment, record-breaking deals were announced in 2022 even as the number of deals declined; some PE investors pulled back, many of them to manage acquisitions they made in 2021. After averaging more than 48 deals per quarter in 2021 in this subsector, PE firms announced or closed an average of under 25 per quarter in 2022. Overall, deals declined by an average of 108 per quarter to just 65 (Exhibit 28).

Exhibit 28: Home health and hospice care deal volume declined sharply in 2022



Notes: Strategic investments include deals undertaken by public or private companies with no major private equity backing; Financial investments include platform and add-on deals by PE firms; Includes only deals with US-based targets.

Sources: Capital IQ, Refinitiv, Pitchbook, KPMG analysis

The sector continued to add patients quarter after quarter, especially in hospice, and as payers sought to reduce the costs of care. Staffing costs have risen in post-acute and hospice care, but not as sharply as in hospitals and some other healthcare subsectors. Post-acute providers are using more alternative clinicians, for example providing patients with nurse practitioners instead of MDs, and registered nurses instead of nurse practitioners. There are limits—technicians are not caregivers—but this trend will continue, particularly as monitoring and scheduling technology becomes more sophisticated.



The year in M&A

Some 2022 deals were among the largest ever in this subsector. In March, UnitedHealth agreed to buy LHC Group, one of the largest home health providers in the U.S., for a reported \$5.4 billion, aiming to combine it with Optum Health.⁵⁰ In April, Humana agreed to sell 60 percent of Kindred at Home, its hospice and personal care unit, to Clayton Dubilier & Rice, a PE firm, for \$2.8 billion. Humana will maintain a relationship with Kindred Hospice, integrate in its markets, and offer the service to other parties. The buyer's other assets include a wound care company and value-based primary care and population healthcare providers.⁵¹

Transactions worth more than half a billion dollars included the Baltimore-based nonprofit Jack and Nancy

Dwyer Workforce Development Center's acquisition of 50 skilled nursing facilities in Texas, and the acquisition of Consumer Direct Holdings, a national in-home provider, by DTRT Health Acquisition Corp., a special purpose acquisition company in Oak Brook, Illinois.

In July, Molina Healthcare, a provider of managed healthcare services based in Long Beach, California, agreed to acquire My Choice Wisconsin, a charitable organization serving seniors, for \$150 million.

The same month, IL2M International Corp, a healthcare technology holding company in Torrance, California, announced a merger with Aamani Healthcare, a Houston-based provider of home health and hospice care, for \$51.8 million.



Outlook and investment considerations for 2023

This subsector tends to be relatively resilient in difficult economic times, which could make it more appealing to investors during the recession. Private equity will be under pressure to put money to work and may drive a larger share of dealmaking in 2023 as capital costs rise beyond the hurdle rates of strategic buyers. Lenders may be more cautious unless rates rise into the double digits.

As the shift accelerates from traditional Medicare to Medicare Advantage (MA), many home health companies will move quickly to negotiate with MA providers and become disciplined enough to maintain margins, which could also help them succeed in hospice care, potentially creating more compelling synergies in the two businesses.

Some deals could become harder to make—potential targets may have narrower margins because of staffing costs but be reluctant to part with assets at valuations well below 2021 peaks. Many investors say they're not finding high-quality targets, in part because of evolution and consolidation at that upper end of the market. The year ahead might therefore feature mostly mom-and-pop and middle-market deals. Megadeals are possible, however, given promising growth prospects in the subsector and the margin challenges facing large health systems.

Reimbursement for hospice care should eventually become more generous as more payers recognize that it can be beneficial to patients—and far less complex and expensive than therapeutic care—but we do not expect

⁵⁰ Source: "UnitedHealth Group Agrees to Buy LHC Group for Over \$5 Billion," Home Health Care News, March 29, 2022

⁵¹ Source: "Humana's Intriguing \$2.8 Billion, 60 percent Sale of Kindred's Hospice, Personal Care Assets," Home Health Care News, April 21, 2022

this sea change in 2023. We do expect some palliative care providers to improve the patient experience and deliver cost savings by identifying patients for hospice sooner.

An array of technologies, from patient-facing apps to big data analytics and AI, will play an increasingly important role in the subsector, particularly in helping patients adhere to treatment plans—and helping providers demonstrate that adherence to payers. All of which will improve health outcomes and help avoid costly readmissions. Technology will also allow more care to be

provided at home, from diagnostics to treatment, which is far more cost-effective.

Providers greatly improved the safety of their facilities in the wake of COVID-19, but lethal failures at some nursing homes in the depths of the pandemic made national headlines, which could discourage patients from going back into those facilities, especially if the virus were to return in force. In the U.S., Health and Human Services could step up enforcement of HIPAA rules, raising compliance costs.

Tailwinds and headwinds

Tailwinds

Resilience. The subsector tends to weather difficult economic conditions well.

Headwinds

Staffing. Recruiting and retention will remain costly and challenging.

Margin pressures. Overall costs are rising faster than reimbursement for home healthcare.

High interest rates. Some potential acquirers may have less leverage and enthusiasm for deals.



The take-away

Home healthcare and hospice are important to more patients as the population ages—and appeal more to payers as the costs of hospital care rise. Staffing costs have risen, but not as fast as in some other subsectors, and some providers are tapping alternative clinicians to

keep cost increases in check. Expertise and scale are major advantages in these businesses, which makes them appealing to larger players and helps spur rollups and other M&A activity in the space.

Healthcare IT: Sector remains strong as payers and providers seek insights and efficiencies

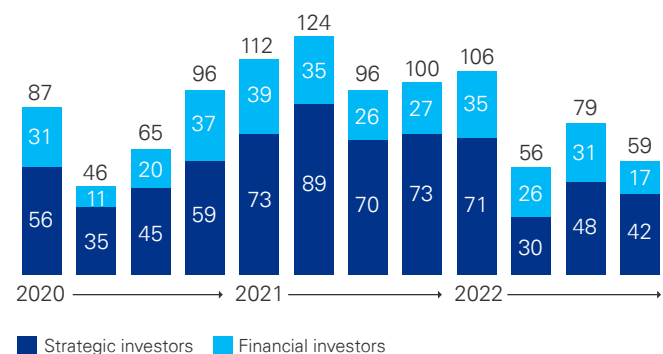
As life expectancies rise and baby boomers retire, an aging population will require more healthcare. About 40 percent of American adults, more than 100 million people, now live with two or more chronic conditions. These and other powerful trends are making healthcare information technology (HCIT) and technology-enabled services more important than ever.

The number of HCIT deals overall rose by nearly 47 percent from 2020 to 2021. In 2022, deal activity returned to 2020 levels (Exhibit 29). One reason for the drop in 2022 was the decline in telehealth deal volume, with many transactions in 2022 focused on tools for providers and payers, such as revenue cycle management, value-based care, and advanced analytics. Some payers and providers are now required to use HCIT tools for compliance.

More than half of our survey respondents believe the shift towards value-based payments and reimbursement,

and ongoing waste-reduction efforts, will drive the greatest demand for HCIT.

Exhibit 29: After an exceptional 2021, HCIT deal volumes returned to previous levels



Notes: Strategic investments include deals undertaken by public or private companies with no major private equity (PE) backing; Financial investments include platform and add-on deals by PE firms; Includes only deals with US-based targets.
Sources: Capital IQ, Refinitiv, Pitchbook, KPMG analysis

How healthcare IT fared in 2022

The powerful trends driving activity in the sector include:

Staffing shortages: Major staffing shortages arose as providers navigated the challenges of the COVID-19 pandemic, and continued throughout 2022, emphasizing the importance of clinical and administrative solutions that improved efficiencies. Seeing no signs that the staffing shortage will ease in 2023, we expect continued demand for tools that can reduce administrative burdens on physicians and nurses.

Telehealth and virtual care: Providers quickly adopted virtual care during the pandemic, but as healthcare organizations opened their doors again, large volumes of care quickly shifted back to in-person settings. Virtual care remains vitally important to many patients and providers, many of whom now use blended virtual and in-person care models, and government and commercial payers continue to reimburse for virtual visits. We expect virtual care to continue expanding in behavioral health and other

specialties that require less in-person intervention, and in rural and other remote settings where virtual care provides access not otherwise available.

Public and commercial payers and self-funded employer groups: Payers and self-funded employer groups will continue to invest in and seek technology that streamlines administrative workflows and lowers costs. Automation is rising in member recruitment and engagement, claims and revenue cycle management, and care and utilization management. Wellness programs, enhanced with HCIT, can encourage members to take more financial and personal responsibility for their physical and mental wellbeing and reduce readmissions and the acuity of care.

Remote patient monitoring: A wide range of technology can improve patient monitoring in the hospital and ambulatory settings. Monitoring devices provide increasingly robust and accessible data in real time, allowing providers to track larger populations of individuals in the outpatient setting, identify those at risk more reliably, and direct them to the appropriate level of care. These tools also help providers monitor individual patients to identify adverse events, improve compliance with care programs, and detect adverse events before they become aggravating, chronic, or fatal. They also increase the effectiveness of treating patients at home and in other alternative settings.

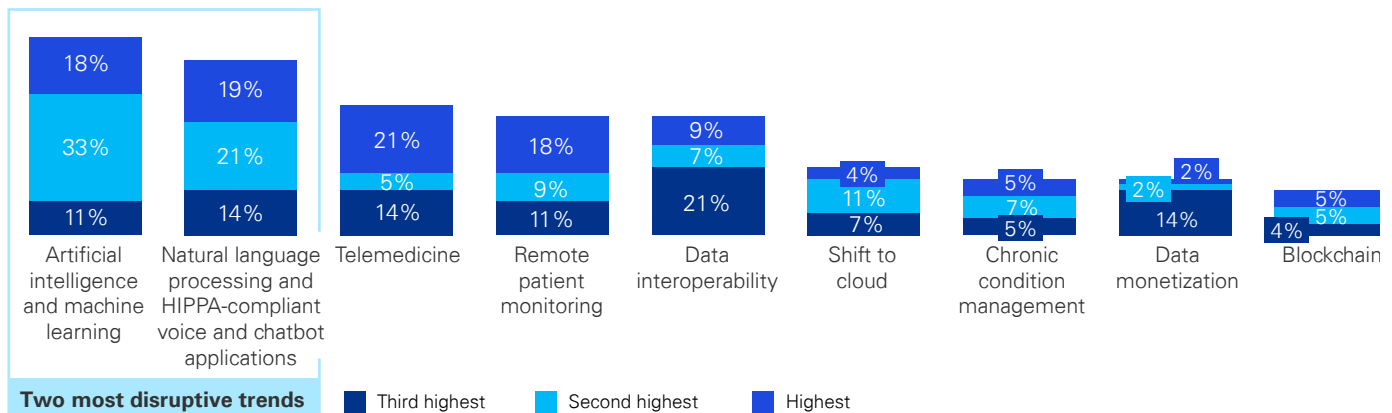
Artificial intelligence and machine learning: Providers and payers are looking for new ways to harness AI and ML to improve efficiencies, reduce costs, and improve

clinical care. So far, these tools have proven most effective in population health management through structured and unstructured data mining to manage utilization, cost, efficacy, and coordination of care, particularly among patients with chronic conditions. Many hospital CIOs suggest that AI and ML related to imaging, particularly in radiology, cardiology, and pathology, have become much more viable and effective in making retrospective patient population assessments and improving provider workflow in clinical diagnostics and documentation. While they cannot replace the clinician, these tools can help providers identify individuals at risk of certain conditions and aid with clinical workflow. Adoption of AI and ML in medical coding has been slower, owing to concerns about excessive error rates. Survey respondents expect the most powerful technology trends in the year ahead to include AI, ML, and natural language processing (Exhibit 30).

Life sciences: Pharmaceutical manufacturers continue to seek HCIT to improve drug development and manufacturing capabilities, address staffing shortages, improve patient recruitment and retention, trial site selection, endpoint identification, speed to execution, and data management, including data mapping and querying. We expect pharmaceutical manufacturers and contract research organizations to continue to adopt a hybrid decentralized trial design moving forward to become more patient-centric, collaborative, and cost-effective.

Exhibit 30: Respondents believe AI, machine learning, and natural language processing will be the most disruptive technology trends in 2023

Q: Which technology trend will be most disruptive to the healthcare market in 2023?



Source: 2023 KPMG HCLS Investment Survey



The year in healthcare IT deals

Healthcare dealmaking hit new records in 2021 as the pandemic eased, the economy improved, concerns rose about potential changes to capital gains treatment, and deals postponed in 2020 closed. While each subsegment of the sector, on average, underperformed the S&P and broader healthcare services markets, subsector performance tracks many of the themes highlighted above.

Companies offering traditional clinical and administrative workflow solutions, targeting healthcare services and life science companies, performed best in comparison to pre-COVID levels, including Evolent Health, Inc. (up 218 percent), Allscripts Healthcare Solutions, Inc. (up 93 percent), Computer Programs and Systems, Inc. (up 12 percent), and Veeva Systems Inc (up 35 percent).

The HCIT sector saw about 287 M&A transactions, a 33 percent decline in deal volume in comparison to 2021—a year that was an outlier in almost every metric. While deal activity remained strong in the first quarter of 2022, concerns about the economy, inflation, and the war in the Ukraine slowed the volume of deals in the second quarter and fourth quarters.

The most important deals of the year can be grouped in three main categories:

Provider and traditional HCIT capabilities: Berkshire Partners and Warburg Pincus acquired a majority share of Ensemble Health Partners from Golden Gate Capital, a leading provider of technology-enabled revenue cycle management solutions for health systems and physician groups. Morgan Stanley Private Equity acquired SpendMend, which offers profit recovery and cost-reduction services that help hospitals identify payment errors and contract non-compliance. Oracle, referring to healthcare as the “largest and most important vertical market in the world,” closed its \$28 billion deal for Cerner in June, its largest acquisition to date. Optum prevailed against the U.S. Department of Justice and in October closed its \$13 billion acquisition of Change Healthcare, a software and data analytics provider that unifies and simplifies clinical, administrative and payment processes. The DOJ says it will appeal the decision.

Telehealth, virtual care, and blended care: In July, Amazon announced that it would acquire One Medical for \$3.9 billion in cash, advancing the retail giant’s foray into brick-and-mortar business in general and healthcare in particular. For an annual fee of \$199, One Medical provides its more than half a million members with 24/7 access to care through a telehealth app and in-person care in 188 clinics across the U.S. The company also provides health benefits to the employees of more than 8,000 companies. In September, CVS announced that it would acquire Signify Health, a home healthcare provider, for \$7.8 billion in cash. Signify Health uses advanced analytics and technology to deliver in-person and virtual value-based care with more than 10,000 clinicians in all 50 states. A senior CVS executive called the deal “the first step on our journey to build a differentiated health services organization to transform how care is delivered.” These transactions demonstrate a strong interest in primary care delivery and business models that blend in-person and virtual care.

Artificial intelligence and machine learning: In January, Francisco Partners acquired the healthcare data and analytics assets of IBM Watson Health. Rebranded as Merative, the company seeks to bring technology and expertise to clients across the healthcare continuum through data and analytics. In March, Microsoft completed its \$19.7 billion acquisition of Nuance Communications, a leader in “conversational AI and ambient intelligence” that can recognize and transcribe speech in physician visits, among other offerings. The Nuance deal, announced in 2021, is part of Microsoft’s Cloud for Healthcare initiative launched in 2020.⁵²

Venture capital investments in the sector declined in 2022. According to data provided by Capital IQ and KPMG research, venture funds invested nearly \$30 billion in 2021 compared to just \$11.6 billion in 2020 and \$5.9 billion in 2019. About \$9.7 billion of capital was invested in HCIT in 2022, heavily weighted towards more traditional industry themes such as provider and payer solutions, AI/ML, and life sciences solutions.

⁵² Source: “How Big Tech is reinventing healthcare,”beckershospitalreview.com, Aug. 17, 2022



Outlook and investment considerations for 2023

Despite higher costs of capital, we expect deal activity in 2023 to be roughly in line with pre-pandemic volumes, likely with more action in the middle market—companies with \$200 million-\$1 billion in enterprise value. We also expect continued volatility—valuations have risen by 15 to 20 percent from recent lows—but after the slowdown in IPOs and M&A in 2022, it may provide investors with opportunities to get off the sidelines in 2023. If the stock market strengthens, some companies may seek to launch IPOs quickly while valuations look promising. If market volatility rises, creating new uncertainties about IPOs, we would expect many funds and individuals looking for an exit to see M&A as a more viable alternative. Some large deals could be forged in that environment.

Private equity firms are likely to pursue payer-focused businesses automating paperwork or workflows,

particularly as more employers look for efficiencies as they take on costs and risks with self-funded healthcare programs. Many entrepreneurs in the middle and lower-middle market will look for buyers or new partners for infusions of capital or other resources, such as market access, to support growth.

Streamlining operations will always be valuable, but groundbreaking new technologies could finally deliver major advances in care in 2023 and beyond. A new generation of data mapping could significantly improve clinical trials. Some new wearables or other monitoring devices could be set up and ignored, making them far more convenient for patients and improving compliance. Oracle says that Cerner, its new acquisition, will use its advanced app development tools to create a new health management product within 12 months.

Tailwinds and headwinds

Tailwinds

Innovation. Some of the longtime promises of HCIT may finally bear fruit, significantly improving clinical trial design, as well as patient experience and outcomes.

Rising cost pressures on payers and providers. HCIT will continue to boost efficiency in care delivery and management. The role of HCIT will continue to rise in a wide array of products and services.

Volatility. A whipsawing stock market could make M&A look more attractive than public offerings.

Headwinds

Saturation. The markets for telehealth and some other consumer-facing technologies are growing more slowly than other subsectors after remarkably fast innovation and adoption during the pandemic.

Budget limitations. Some customers may not have the funds to invest in HCIT in 2023.



The take-away

The pandemic made virtual care the most visible form of healthcare IT—more than 50 million Americans used it in 2020. Many of the deals in 2023 will help providers and payers improve efficiency, clinical trials, or clinical care. Any IT tool that can free staff to focus on higher-value work will appeal to customers in an increasingly

challenging marketplace where costs remain high and talent is hard to find. A majority of our survey respondents believe the shift towards value-based payments and reimbursement, and ongoing waste-reduction efforts, will drive the greatest demand for HCIT.



Conclusion

After a year marked by historic upheavals and great uncertainty for HCLS companies, the outlook of industry leaders for 2023 is optimistic—if tempered with realism about the scale of ongoing challenges. Although much of HCLS has proven to be recession-resistant, strong economic headwinds are likely to impact company balance sheets and valuations, adding to the need for strategic adjustments and clear-eyed deal making. Identifying M&A targets that will repay substantial acquisition costs in a fluid marketplace will be more important than ever.

If, after holding off on deals during an exceptionally turbulent year, buyers and sellers can negotiate terms that benefit both sides, pent-up demand for portfolio shaping, consolidation, and strategic partnerships could lead to a resurgence of M&A in 2023.

Our research for this report focused on key trends and opportunities for investors. We also identified potential headwinds, for the industry overall as well as in specific subsectors. Concerning obstacles include heightened regulation, valuation uncertainty, fluctuating demand for goods and services, and labor shortages.

But the appetite for identifying and executing the right deals remains strong. As 2023 gets under way, we believe companies in HCLS subsectors will prosper. With vision and diligence, these companies will find the resilience and strength to move forward in an uncertain world.

How KPMG can help

KPMG LLP is one of the largest providers of professional services—advisory, strategy, audit, and tax—to the healthcare and life sciences industry globally with more than 4,200 industry-specific partners and professionals. The KPMG Healthcare and Life Sciences Strategy practice specializes in advising corporate, private equity, and public organizations across all phases of the M&A lifecycle, from deal strategy to diligence to post-close value creation.

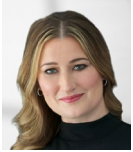
Our integrated, multidisciplinary approach provides clients with critical insights into value opportunities—and obstacles to value—at deal speed. The ability to go beyond standard diligence methods will be increasingly important in the post-COVID-19 M&A market. Further, KPMG has a

proprietary set of tools and methodologies to deliver data-driven insights.

Our dedicated healthcare and life sciences M&A teams have extensive experience in mergers, acquisitions, affiliations, JVs, and partnerships across all segments and subsectors of the healthcare and life sciences industry. We understand the regulatory, commercial, operational, and accounting complexities unique to the industry and provide a client-centric, integrated suite of services across the deal lifecycle to assist our clients in achieving business results. For more information about our Healthcare & Life Sciences practice, please [click here](#).



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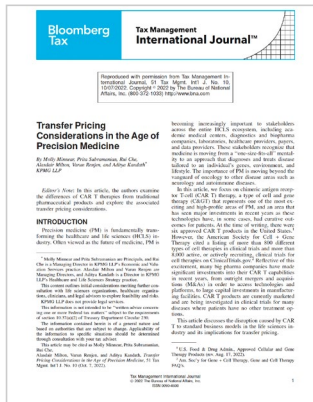
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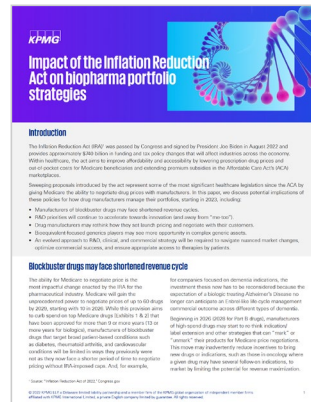
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