

Global Healthcare Private Equity and M&A Report 2021



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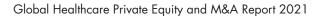


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Welcome letter

Call it a Covid-19 paradox. In our 10th annual report, we explore how healthcare private equity not only survived a global pandemic in 2020 but also showed remarkable resilience, posting another very active year. The industry's historical outperformance during recessions may have roused greater investor interest relative to other parts of the economy. Ample dry powder in search of opportunities, along with capital markets' strong appetite for exits, created fertile conditions for investment. As a result, even with the pandemic upsetting all manner of business activities and deal processes, healthcare deal volumes jumped higher than record 2018 and 2019 levels despite a 14% decline in volume across private equity globally.

Meanwhile, the total disclosed value of healthcare deals declined for the first time since 2015, due to a convergence of several factors:

- The coronavirus and subsequent lockdowns suppressed or disrupted deal activity in several sectors, particularly among potentially high-value deals. Business owners sidelined some assets rather than attempting a sale amid weaker market conditions.
- No blockbuster transactions on the order of the 2019 \$10.1 billion Nestlé Skin Health deal occurred during 2020.
- Some of the largest assets wound up transacting to special purpose acquisition companies, or SPACs.

This year's report explores a number of key healthcare private equity developments.

Macro trends

• **Covid-19's diverse effects.** In terms of the types and mix of deals that closed, Covid-19 had sharply different effects on each sector and even segments within a sector. While the situation is still evolving, some lessons have emerged, as detailed in "The Covid-19 paradox" chapter.

Sector trends

• Technology to modernize administration, support telehealth, or help patients make decisions. Pressures on healthcare providers and the shift toward alternative sites of care helped support healthcare IT growth and activity in 2020. Especially active areas were healthcare IT assets that promote care management across alternate sites, or innovative healthcare payment platforms and payer models that modernize obsolescent administrative operations or help patients understand and navigate coverage options. Further, companies that support modernization of activities across the value chain, from clinical trials virtualization to telehealth, also attracted greater interest.



- **Derivative moves in biopharma services and life sciences.** With many investors hesitant to assume molecule risk directly, some investors looked for investment opportunities across pharma services and life sciences tools and services as derivative moves aided by tailwinds in the sector. These included broad platform strategies as well as those focused on key segments including specialty contract research organizations, contract development and manufacturing organizations, packaging, cold chain logistics, commercialization and marketing services, and intellectual property tools and products that have category-leading positions in growing life-science segments such as cell and gene therapy.
- **Significant investment in next-generation models.** Across the healthcare spectrum, businesses are working to develop next-generation models for care delivery that would represent a step change from current practices. Areas for innovation include disruptive primary care, triage, and home care models, and employer-based care navigation.
- Hunting in healthcare provider segments that are new to buy-and-build strategies. With many traditional healthcare provider assets staying on the sidelines, investors sought out less-penetrated segments (new to buy-and-builds), where they can execute a similar platform or buy-and-build playbook, or those that can facilitate the shift to home-based or outpatient care settings. Some investors also sharpened their focus on risk-bearing targets, particularly Medicare Advantage providers operating under capitated models. Behavioral health was particularly active.

Regional trends

• **Asia-Pacific's surge.** For the first time, the Asia-Pacific region logged more deals than North America and Europe. Deal value was heavily concentrated in the second and third quarters of the year, possibly due to the earlier and shorter effects of the pandemic in key Asian countries. Investment trends varied widely by country and sector; for instance, the healthcare provider sector showed substantial in-hospital activity in China, but more alternate site deals in Japan. Private equity funds generally were willing to do a broader range of deals with more structures and more variable risk profiles. Some regional private equity activity began reaching earlier into company life cycles to the point where they overlap and compete with venture funds.

Financial trends

• The return of the initial public offering (IPO) as an exit vehicle, and the rise of special purpose acquisition companies (SPACs). Both the size and number of IPOs rose sharply in 2020, with disclosed values reaching their highest levels since the global recession more than a decade ago. Some of this IPO growth stemmed from the spike in SPAC activity, but capital markets have a strong appetite for healthcare assets, and the scarcity of true gem assets drives strong valuations as they come to market.



Looking ahead, one obvious and unanswered question concerns what timing and shape the rebound will take after the coronavirus abates. Many scenarios could play out, but investors will need to disentangle the impacts of Covid-19 from the rest of an asset's business fundamentals.

Other factors inject uncertainties into future investments as well. Regulatory and policy decisions such as surprise billing legislation, drug pricing actions, medical device regulation, and changes to public insurance availability may have major consequences for entire healthcare subsectors. Savvy investors will develop a clear understanding of the implications of any change in order to inform their decisions, as policy shifts will create both risks and opportunities. Investors should keep an eye out for models that can have direct or derivative value in the future, such as enabling healthcare IT or innovative models that can transplant proven concepts from one care setting to another—for example, Medicare Advantage strategies applied to traditional Medicaid or commercial populations.

Despite these shifts, healthcare should remain an attractive industry for investment because of its strong demographic and demand foundation, the supply-constrained nature of many businesses, and a strong pipeline of innovation.

Indeed, although Covid-19 has caused widespread challenges, the changes wrought by the pandemic also create new business opportunities. With private equity funds looking to put dry powder to work, and the ongoing rise in demand for healthcare, competition for attractive opportunities will intensify among both financial sponsors and corporate buyers. As competition and multiples grow, this will raise the bar for generating attractive returns, which will increase the complexity and importance of robust diligence and value creation planning.

Nirad Jain

Partner and coleader of

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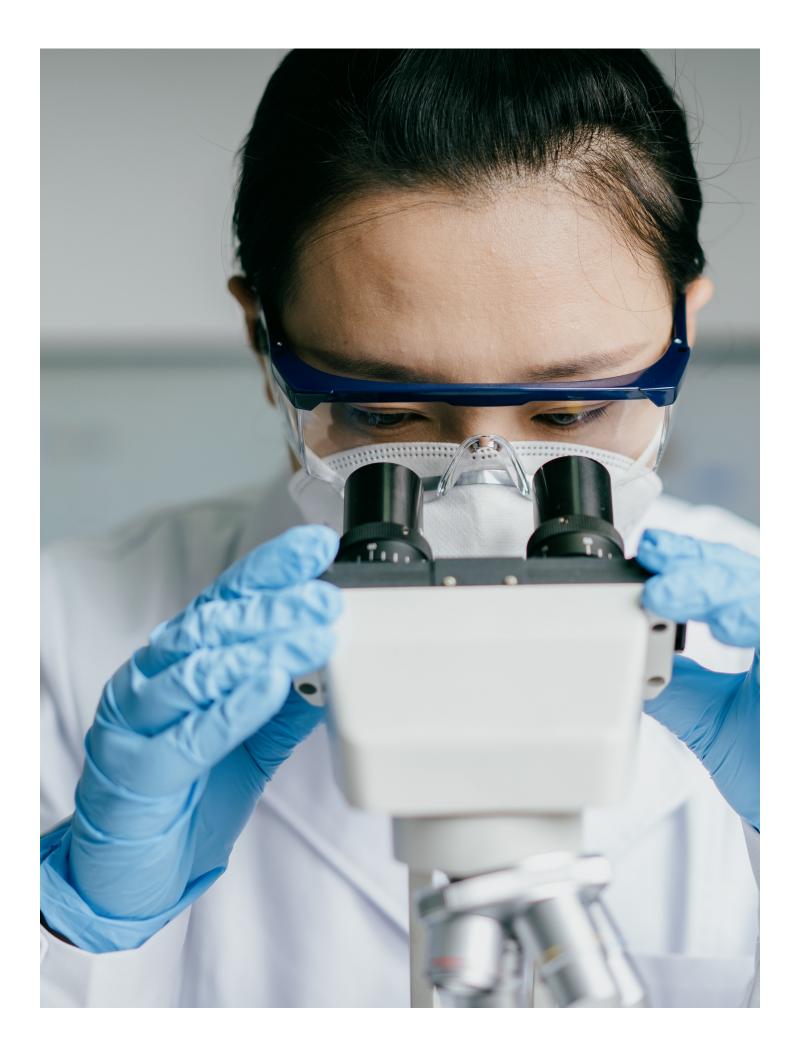
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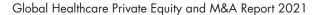
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1. Healthcare private equity market 2020: The year in review

At a Glance

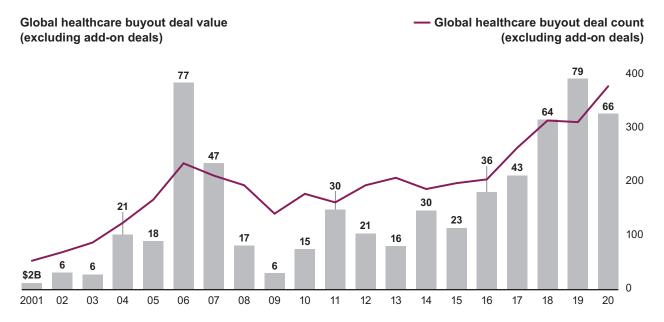
- Healthcare private equity deal volume increased by 21% to a total of 380 deals in 2020, compared with 313 the year earlier, despite a 14% decline in total global PE activity.
- Total disclosed deal value fell 17% to \$66 billion, which is robust considering the effects of Covid-19. The average size of deals with disclosed values dropped 57%, due in part to a lack of very large deals. The average declines were most pronounced in North America and Europe.
- For the first time, the Asia-Pacific region logged the most buyouts—41% of global deals—driven primarily by the biopharma sector. North America remained the leader for disclosed value, with 53% of global value.
- The healthcare provider and biopharma sectors were the most active, despite Covid-19's damage to patient volumes and provider margins, with nearly 150 deals in each sector.
- M&A contracted more than private equity as many corporates retrenched during the economic downturn. M&A fell to \$339 billion from \$541 billion in 2019, with deal count falling to 2,845 from 3,137.

Private equity, like the broader economy, faced acute challenges in 2020 brought on by the global pandemic. Yet buyers and sellers still managed to complete deals at a brisk pace, and healthcare showed remarkable resilience given the extent of the disruption caused by Covid-19 and the lockdowns imposed in most countries. In fact, healthcare buyouts posted record-setting volumes in 2020, albeit at reduced total and average deal values (see Figure 1).

For global private equity as a whole, the number of deals fell to 3,096 in 2020, compared with 3,600 in 2019. However, disclosed deal values increased by 7.5% to \$592 billion.

In contrast to the overall private equity market, healthcare private equity deal volume actually rose. However, disclosed healthcare deal values were more negatively affected. Over the past five years, total healthcare deal value outgrew the value of private equity deals overall, going from 7% of total disclosed value in 2015 to 18% in 2019. That trend reversed in 2020 as the industry's share of disclosed value fell to 14%, in line with 2018 levels (see Figure 2). This may seem surprising, given healthcare's record of providing superior returns through economic downturns. However, we believe this is a logical outcome considering some of the structural features of the Covid-driven downturn.

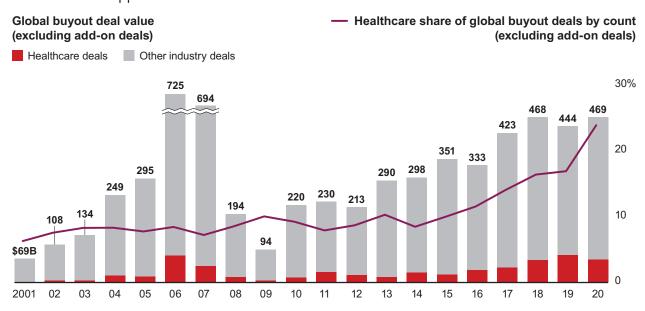
Figure 1: Healthcare private equity deal values dropped from a banner 2019



Notes: Excludes spin-offs, add-ons, loan-to-own transactions, and acquisitions of bankrupt assets; based on announcement date; includes announced deals that are completed or pending, with data subject to change; deal value does not account for deals with undisclosed values; total buyout deal values updated based on Dealogic 2020 sponsor classifications

Sources: Dealogic; AVCJ; Bain analysis

Figure 2: Healthcare deals accounted for a record share of global buyout deal volume, though the share of value dipped



Notes: Excludes spin-offs, add-ons, loan-to-own transactions, and acquisitions of bankrupt assets; based on announcement date; includes announced deals that are completed or pending, with data subject to change; deal value does not account for deals with undisclosed values; total buyout deal values updated based on Dealogic 2019 sponsor classifications

Sources: Dealogic; AVCJ; Bain analysis

Unlike prior economic shocks, such as the financially driven Great Recession and the 2015 industrial mini-recession, Covid-19 had a more direct and significant impact on the healthcare industry. Previous recessions saw healthcare private equity offering a flight to quality, as volumes and profit margins tended to come under less pressure than other, more discretionary industries. By contrast, this pandemic's systemic effects concentrated intensely on healthcare. While demand related specifically to Covid-19 medical treatment, prevention, or management clearly rose, other forms of healthcare experienced substantial volume losses, treatment deferrals, capacity and supply constraints, and countless other disruptions. This trend varied within sectors and subsectors, where specific secular and cyclical factors prompted different responses (as detailed in "The Covid-19 paradox").

Such an upheaval inserted substantial uncertainty for buyers and sellers of assets, thereby reducing deal appetite, especially for the largest deals that have been a hallmark of prior years. For example, between 2015 and 2018 the top 10 healthcare buyouts represented roughly \$20 billion to \$40 billion of disclosed value, or about 60% to 75% of disclosed value for all healthcare deals. 2019 was also a blowout year for large deals, with 54 total deals of disclosed value above \$1 billion, and the largest single deal, Nestlé Skin Health, accounting for 13% of total disclosed value on the year.

In 2020, however, the top 10 deals represented only 43% of total value, the largest being DXC Technology at \$5 billion (see Figure 3). Among deals with disclosed values, the average size of a check fell to \$296 million in 2020 from \$686 million the year earlier as large volumes of lower-value deals

Figure 3: The 10 largest announced buyouts in 2020 accounted for 40% of disclosed value

Target	Target region	Acquirer(s)	Acquirer region	Sector (includes related services)	Approximate deal value (\$ billions)		
DXC Technology Company (state and local HHS business)	North America	Veritas Capital Fund Management	North America	Provider	\$5.0		
ELSAN Groupe	Europe	KKR, Ardian	Europe	Provider	\$4.1		
1-800 Contacts	North America	KKR	North America	Provider	\$3.0		
Pathway Vet Alliance	North America	TSG Consumer Partners	North America	Provider	\$2.7		
Colisée Patrimoine Group	Europe	EQT Infrastructure Investment Fund, existing management, Caisse de Dépôt et Placement du Québec	Europe	Provider	\$2.6		
Precision Medicine Group	North America	Blackstone Group, Berkshire Partners†, TPG Capital†	North America	Biopharma	\$2.3*		
Takeda Consumer Healthcare Company	Asia-Pacific	The Blackstone Group Japan	North America	Biopharma	\$2.3		
Nichii Gakkan	Asia-Pacific	Bain Capital	Asia-Pacific	Provider	\$1.6		
WellSky Corp	North America	Leonard Green & Partners, TPG Capital [†]	North America	Provider	\$1.5*		
Priory Group	Europe	Waterland	Europe	Provider	\$1.4		
Total top 10 deal value							
Total healthcare PE buyout deal value							

^{*}Partial asset deal value; †maintained partial ownership following recapitalization of asset

Notes: Sum may not equal the total due to rounding; includes announced deals that are completed or pending, with data subject to change; deal values inclusive of net debt and quoted at time of announcement; deal values are approximate and based on information from press releases, news articles, Dealogic, or AVCJ Sources: Dealogic; AVCJ; Bain analysis



jumped in 2020, especially in the Asia-Pacific region. Despite ample reserves of available capital, private equity sponsors and corporates alike hesitated to make mega-acquisitions in a time of straitened balance sheets and depressed equity valuations. Further, sellers with particularly strong assets held off on exiting on the thesis that a better valuation could be achieved after the pandemic.

Given investors' gravitation to healthcare in 2020, we expect that it will remain difficult for investors to pick and choose large deals. Competition will intensify for attractive assets that come to market in high-interest segments, as many investors are looking to enter growth areas. Investors will need to diversify their search and forge strong relationships across the industry, in order to position themselves to access high-value, accretive opportunities.

Covid-19 was not the only relevant factor dampening disclosed value. For instance, a number of large assets traded without disclosing value. Also, capital markets showed a greater appetite for initial public offerings (IPOs), with a number of the largest healthcare assets going public after passing through one or more private equity owners. In previous years, these assets might have passed to another sponsor and counted toward total activity (see "SPAC appeal").

At the same time, even amid a turbulent macro environment, many investors were able to secure rapid financing, allowing them to move quickly on available assets and shore up tightened balance sheets. In the US and Europe, debt-to-EBITDA multiples remained high (6.6 for US and 5.9 for the European Union), a sign of good access to credit for investors (see Bain's Global Private Equity Report 2021).

Why the profit pool should keep growing

Taking a broader perspective, healthcare companies continue to enjoy favorable underlying trends that strengthen the case for a relatively rapid return to past levels and growth trajectories of demand as the pandemic crisis recedes. An aging population, rising incidence of chronic illness, rising income levels and healthcare access, innovation in treatment and technology, and likely moderate pricing growth will combine to increase healthcare profit pools by roughly 5% annually in the next five years, we estimate.

To be sure, legislative and regulatory risks could cloud the picture, especially in the wake of the pandemic and the significant changes it will likely usher in to countries' health systems, infrastructure, and historic pricing tailwinds. Nevertheless, we don't anticipate a comprehensive overhaul of most countries' current healthcare systems. Instead, we expect to see a mix of continued pricing growth outpacing inflation, increased demand, and the creation of new market niches for firms to explore.

Corporate M&A's mixed relationship with private equity funds

Despite the weaker growth in deals, exits posted the third consecutive year of growth. Disclosed deal values rose by 79% to \$73 billion, with absolute increases in the value of IPOs and corporate deals, and a drop in sponsor-to-sponsor exits.



Turning to M&A, activity contracted further than private equity as many corporates retrenched during the economic downturn. M&A fell to \$339 billion in 2020 from \$541 billion the year earlier, with deal count falling to 2,845 from 3,137. Still, M&A finished the year over five times larger in value than buyout activity, with many corporate entities acquiring attractive assets.

The presence of corporates continues to have mixed effects on private equity investors. They create new competition for target assets, especially when they assemble large-scale platforms that can plausibly outbid private equity funds for complementary assets on the strength of potential synergies. At the same time, they can serve as avenues of exit and sources of differentiated capabilities and creative partnerships for certain assets. One such creative partnership is Humana's \$600 million joint venture with Welsh, Carson, Anderson & Stowe to open additional Medicare-focused primary care facilities.

Asia-Pacific's surge

From a geographic perspective, regional performance varied to some extent in 2020. North American and European deal volume and value fell, but the Asia-Pacific region grew on both counts due to increases in biopharma and healthcare provider deals. North America continued to concentrate most of its activity in the provider sector, especially provider services, followed by biopharma. Europe's sector mix appeared similar to North America, and both saw increased activity in alternate care sites and retail health providers.

Across regions, several trends became prominent over the course of the year:

- a wider appetite for new types of risk, including payer risk and molecule risk;
- pick-and-shovel strategies, or investing in the tools and services used to produce a product, especially in life sciences and biotech; and
- continued demand for compelling targets with defensible niches and strong category leadership positions in their segments.

SPAC appeal

Once a bit player, the special purpose acquisition company, or SPAC, gained more prominence in 2020 across private equity as an exit alternative to the traditional IPO or sponsor-to-sponsor deal, and this was no different within healthcare. Low interest rates, easy access to financing, concerns about the effectiveness of a traditional IPO pricing mechanism in the midst of Covid, and strong performance by public equities all raised the appeal of SPACs.

As a proven investment sector, healthcare attracted its share of newly formed SPACs and a few fast-moving groups were able to complete deals last year. Among the notable examples:

- Multiplan, a healthcare services and technology solutions provider, merged with Churchill Capital III in a deal valued at \$9.7 billion.
- Cano Health, which provides value-based care to seniors, merged with Jaws Acquisition in a deal valued at \$3 billion.
- Cerevel Therapeutics, a biotech firm spun out of Pfizer's neuroscience division, merged wth Arya Sciences Acquisition II in a deal valued at \$780 million.

Private equity investors increasingly view the SPAC as an attractive exit channel. Compared with an IPO, it offers cash up front to funds looking to exit a portion of their position in an asset, and to do so perhaps sooner than a traditional IPO. Compared with traditional buyouts, it allows a fund to maintain some stake in assets that the fund is confident will continue to grow. In short, the SPAC serves as an efficient method for taking some value off the table in a volatile market. The next year or two will serve as a "make or break" time for SPACs, which typically are allowed two years to deploy their capital. If few deals are completed, that could indicate sponsor reluctance to exit via SPACs in the future.





2. The Covid-19 paradox: Widespread repercussions for demand, but new healthcare investment opportunities as well

At a Glance

- Covid-19 disrupted the entire healthcare ecosystem, as preventive and elective care was delayed or dropped, supply chains got disrupted, and traditional clinical trial processes were put on hold.
- But the pandemic's effects vary greatly among different healthcare sectors and subsectors. A model of three healthcare demand scenarios helps investors to understand how and where demand shifts could play out.
- The pandemic has also accelerated four major opportunities for healthcare investment: alternative sites of care, telemedicine, modernization of clinical trials, and healthcare provider consolidation.

With its sweeping health effects on the global population and the attendant restraints on much economic activity, the Covid-19 pandemic disrupted the entire healthcare ecosystem more than any event in recent memory.

Most visibly, the stress on acute care capacity combined with lockdowns forced delays or cessations of both preventive and elective care, resulting in delays to disease diagnoses and cancellation of procedures such as joint replacements that healthcare providers depend on for their profitability. The traditional efficiency-minded hospital model, with limited intensive care unit beds, nurses, and care sites, faced dramatic shortages at a time of surging patient need. With the added concerns around the safety of acute facilities and the ability to obtain care there, the ongoing shift of patients accelerated to alternate sites or modes of care, including telemedicine.

Other repercussions have rippled through healthcare as well, including these:

- Supply chains were disrupted, especially in critical equipment and medicines.
- The industry was exposed as lacking fully developed technology to enable at-home care and diagnostics, or to track patient health outside traditional care settings.
- The biopharma pipeline came under intense but short-lived pressure as traditional clinical trial processes using in-person activities were largely put on hold.

Three healthcare demand scenarios to consider

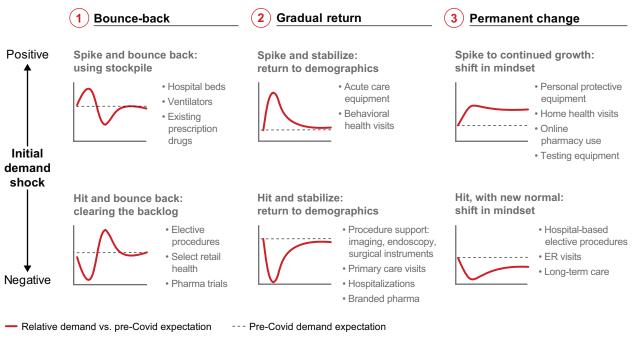
To understand how this broad array of changes and pressures on the healthcare system could play out, we have built simplified demand scenarios for periods during the pandemic, immediately after it wanes, and then the longer-term outlook. Should the pandemic extend longer before populations reach herd immunity, the effects on demand may extend out as well. While these scenarios represent a simplified model, they can help executives understand how various segments within healthcare will be affected and the implications for investment.

In some subsectors, companies might be able to address pent-up healthcare demand in 2021, while in others, the unmet demand will have been permanently lost. Demand responses can be sorted into three categories: bounce-back, gradual return, and permanent change. Let's look at each in turn (see Figure 1).

The **bounce-back** scenario envisions short-term positive or negative demand shocks, followed by a reversal as backlogs or stockpiles clear, and an eventual return to the pre-Covid trajectory.

Early in 2020, several sectors experienced severe demand shocks that later flipped as supply caught up or the need quickly dropped. Over time, services and products in this category could experience a net zero shift in demand as they return to pre-Covid levels of need.

Figure 1: Covid-19's effect on demand will vary by healthcare sector and presents new opportunities



Source: Bain & Company



As an example, demand for certain health equipment central to Covid-19 treatment, such as ventilators, spiked early in the pandemic. As governments and businesses rolled out virus containment efforts and a surge in production met initial demand, demand for many of these products quickly dropped. Demand for additional equipment may continue to be low as the market soaks up potential oversupply.

In the opposite scenario, moratoriums on deferrable procedures caused the cancellation of many scheduled elective surgeries, such as joint replacements. Volume dried up early in the year and extended over time as patients needing implants actively avoided visiting healthcare centers. As facilities reopen, we expect pent-up demand for joint replacements that will need to be cleared before activity returns to baseline levels.

In the **gradual return** scenario, short-term dislocation is followed by a gradual return to the near prepandemic trajectory. Here, we don't expect pent-up demand, but rather any activity that stopped during the pandemic will simply be skipped. Several segments have taken or may take a slow return to normal levels of demand, and like the bounce-back scenario, both positive and negative effects exist.

Behavioral health visits benefited from the Covid dislocation, rising quickly early in the pandemic as more people sought professional mental health support. Demand for this service will likely persist in the medium term, but return to baseline levels over time as normal activities recover.

On the other hand, demand for imaging equipment such as endoscopes took a sharp hit during the pandemic, given the fall-off in diagnostic procedures. However, as these operations slowly return to normal levels, we expect a gradual return to near baseline demand for imaging instruments—but no pent-up demand from the missed procedures during the pandemic.

In the **permanent change** scenario, initial dislocations become a qualitatively different postpandemic demand trajectory for some healthcare segments. This scenario applies to segments that went through a step change in how they are used or viewed as a result of the pandemic, based on new consumer needs or priorities. As with the prior two scenarios, we see both positive and negative examples of this shift.

Emerging nontraditional care models stand out as one positive example. While people used to view home health visits, virtual pharmacy, and telemedicine practices as niche channels for care, the pandemic forced many people to try virtual options. Given the greater willingness to use emerging forms of healthcare, we expect demand for these types of alternative channels to increase.

Conversely, a negative example is the demand for hospital-based elective procedures that were already shifting to outpatient settings (such as ambulatory surgical centers), a shift that accelerated during the pandemic. We expect this movement to continue over the long run, and overall demand in short-term acute hospitals to remain below pre-Covid levels.

As with most crises, the upheaval caused by the pandemic creates potential opportunities for companies or investors that prepare for and are capable of seizing the moment. Here, we highlight four major opportunities.



Alternative sites of care take hold

Shifting patient reliance away from higher-acuity sites of care has created openings for providers that can capture some of the patient flow to alternative sites or services, especially in the realms of post-acute and home healthcare. We expect to see better coordination and care management in these alternate sites.

Home healthcare had become a more important channel even before the pandemic. This trend stemmed not only from patients becoming less reliant on visiting higher-acuity sites, but also on favorable reimbursement changes, especially in the US. Now there is an opportunity for enhanced levels of care at home, as well as systems that support patient movement between care settings. Healthcare providers will need to blend home care offerings with other settings, so we expect more investment opportunities in home care practices that can be integrated with traditional providers, and in supporting technologies that enable coordination across traditional and nontraditional care settings, such as acute care in the home.

Telemedicine increasingly substitutes for in-person care

As consumers deferred visits to healthcare centers during the pandemic, basic diagnostics became quite difficult, complicating efforts to promote good patient outcomes. Suddenly, many consumers began to take telemedicine seriously as a suitable replacement. Telehealth has the potential for growth, but the pandemic has also provided some lessons on what is required to successfully drive adoption. For example, we've learned that existing models that offer patients the opportunity to visit any physician were much less popular with patients than those firms that enable virtual visits with a doctor they already know. Compelling telehealth platforms clearly have a role in an omnichannel strategy for healthcare providers.

Regulatory groups and healthcare payers have further supported this shift, by adding virtual services to reimbursement lists, and by increasing the rate at which these services are reimbursed. Looking ahead, it is not clear how patients and physicians will balance telehealth with in-person care, though telehealth demand will likely come down from the pandemic peak.

Modernization of traditional clinical trials

Covid-19 exposed some of the weaknesses in the traditional clinical trial approach, which historically relies on in-person visits to collect patient data. This dependence slowed or halted development of many pipeline assets early in the pandemic. Clinical trial efficiency solutions (such as e-consent in clinical operations), decentralization of trials (remote patient diagnostics and monitoring), and use of real-world data (synthetic control arms) all represent angles of development toward a trial model less reliant on physical interactions.

In addition, to accelerate vaccine development, researchers collaborated in unprecedented ways, such as the use of Certara's evidence generation, simulation modeling, and regulatory consulting services for vaccine candidates. Development success may portend more consortium-oriented research and trial models for sharing data as part of innovative life-saving medications.



Digital solutions that support virtual trial execution also accelerated due to the pandemic. Those that can transfer and add value to other pipeline assets will likely endure. While core in-person aspects of clinical trials should remain relevant, private equity funds should prepare for their diligence to evaluate which digital assets could grow in the future.

Healthcare provider consolidation heats up

In recent years, larger provider platforms have been busy consolidating small providers, to gain the efficiency benefits of scale. Independent physicians, as well as smaller physician groups, were particularly vulnerable to the business effects of the pandemic. More of these individuals and smaller groups thus may choose to mitigate their risks by joining a broader platform. Larger platforms are inherently better-positioned to survive, due to their scale, better economics, and reduced exposure to any individual payer or geography.

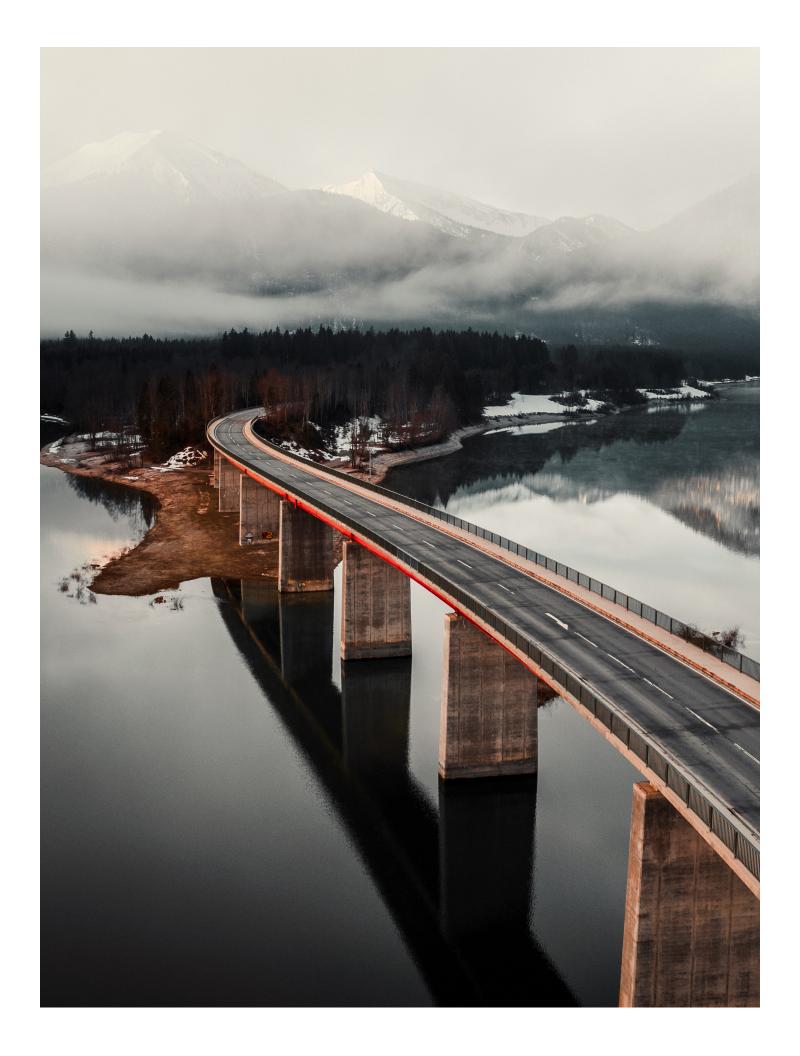
That said, in order to continue to reap value from their positions, large-scale groups will need to go beyond pulling managed care and revenue cycle management levers, by harnessing the power of technology, ancillary services, and more outpatient-focused models.

A few other areas of healthcare seem ripe for change, though it is not yet clear how they will play out in the market.

In particular, many governments are beginning to view healthcare as a new national infrastructure and component of national defense, leading to rising public investment, increased reimbursement in new technologies, and potential incentives for domestic supply chains. This raises further questions around the traditional hospital model, given the potential costs and benefits of added capacity for future pandemics.

Consider recent developments in the US. As part of Operation Warp Speed, the federal government spent almost \$18 billion in a public-to-private partnership to promote the mass production of vaccine technologies by a number of firms in an effort to spur an otherwise burdensome development process. Also during the pandemic, the Centers for Medicare & Medicaid Services cemented reimbursement increases for 144 telehealth services by Medicare for patients in rural communities.

Given past administrative changes to healthcare, there is reason to believe that many of these updates to healthcare norms may persist after the pandemic recedes, or remain indefinitely in the event of an extended pandemic. The degree to which governments expand spending and regulation will merit keen investor interest in the coming months and year. Overall, though, despite the devastation of the pandemic, the healthcare sector remains highly attractive for private equity investors that have capital to deploy.





3. Geography trends

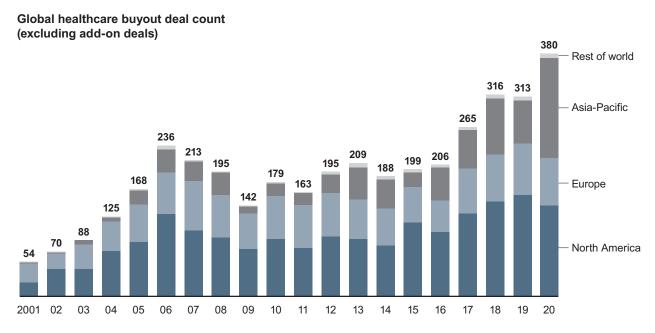
Overview

North America: For the first time, North America was passed by the Asia-Pacific region as the leader for healthcare private equity in deal count, though it retained the leadership position in disclosed value. Volume dropped slightly to 142 deals (see Figure 1), down from 159 in 2019. Disclosed deal values also dropped to \$34.7 billion, compared with \$46.7 billion in 2019.

Average deal value (for deals that disclosed value) dropped from \$1.0 billion in 2019 to \$0.5 billion in 2020. This difference largely stemmed from the absence of megadeals compared with prior years, as the Covid-19 pandemic caused parties to defer some large transactions, and special purpose acquisition companies gained favor as an exit alternative for some large deals. Volatility in the marketplace also likely encouraged pursuit of smaller, incremental deals, especially if they could be added on to existing portfolio assets.

Europe: European deal volume dropped slightly to 75 deals from a high of 80 in 2019. Disclosed value fell by nearly 30% to \$14.0 billion after reaching \$19.7 billion in 2019. Part of this drop stems from the lack of megadeals that were present in 2019, notably the \$10.1 billion Nestlé Skin Health acquisition,

Figure 1: Deal activity surged in Asia-Pacific, offsetting a decline in North America and Europe



Notes: Excludes spin-offs, add-ons, loan-to-own transactions, and acquisitions of bankrupt assets; based on announcement date; includes announced deals that are completed or pending, with data subject to change; deal value does not account for deals with undisclosed values; geography based on the location of targets Sources: Dealogic; AVCJ; Bain analysis



as well as some known high-value deals going undisclosed. Overall, activity and values for 2020 demonstrated clear signs of a robust underlying acquisition market despite Covid-19's effects on buyout processes.

Asia-Pacific: Deal volume increased significantly to 156, up from 68 in 2019 and 88 in 2018. However, the rise in disclosed value was less pronounced, \$16.9 billion up from \$11.5 billion the year prior. The 2020 gains mirrored the region's long-term growth and derived largely from greater domestic investing, especially in China and India biopharmaceuticals and services as smaller, venture deals of the past are beginning to evolve into growth equity opportunities for investors. Additionally, several structural reasons (such as government policy shifts supporting the growth of local healthcare champions) and strategic reasons (such as lack of supply in domestic assets) led sponsors to continue with smaller, consortium investments in early-stage targets. There were only two deals valued over \$1 billion, down slightly from four in 2019.

Rest of the world: As in past years, healthcare private equity activity was scant in the rest of the world. Activity reached just seven deals, up from six in 2019, primarily in the Middle East and Africa.



North America: Bring on the gem assets

After a mild decline in deals, activity has started to bounce back on the strength of favorable underlying trends.

At a Glance

- North America posted strong healthcare private equity activity despite the challenges of the pandemic and lockdowns. Buyout volume declined only slightly to 142 deals in 2020, compared with the record-setting 159 in 2019. Disclosed deal value also dropped to \$34.7 billion, down 25% from the \$47 billion in 2019.
- Several factors account for the declines. The healthcare provider sector lacked megadeals, special purpose acquisition companies (SPACs) took some large deals that might otherwise have gone to PE sponsors, and Covid-19 prompted the deferral of some planned deals.
- Healthcare providers remained the most active sector, with 74 deals in 2020 compared with 96 in 2019. Provider deals as a share of total deals in the region dipped to 52% in 2020, down from 60% in 2019.

Like most other industries in North America, healthcare experienced profound shocks from the Covid-19 pandemic, which dampened private equity dealmaking. Yet deal activity has started to bounce back faster than some other industries as healthcare increased its share of overall private equity deals, largely on the strength of continued, favorable underlying trends: An aging population and the rising incidence of chronic disease expands the need for healthcare.

Due to their confidence in healthcare tailwinds, private equity investors with a strong history in healthcare doubled down on the sector in 2020 in pursuit of compelling targets. For instance, Blackstone completed several acquisitions and investments to strengthen its portfolio, including HealthEdge, Cryoport, and Precision Medicine Group, as well as ZO Skin Health, a cosmetics company with potential healthcare applications. Additionally, many funds took opportunities to strengthen their existing portfolio company capabilities with add-on assets. Advent, for example, augmented the home health services of its AccentCare asset with the acquisition of and merger with Seasons Hospice.

Healthcare providers: Focused deal activity in the face of broader volume challenges

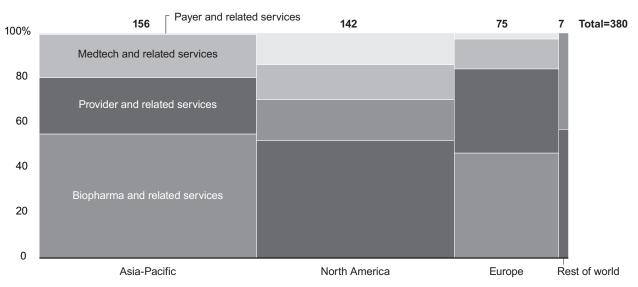
In keeping with the past few years, the provider sector accounted for the most deals, with 74 in 2020, down from 96 in 2019 (see Figure 1). This was largely true across other regions as well, where, combined with biopharma activity, there was a heavy concentration of overall deal activity. In addition to deals in the provider sector, sponsors had to help portfolio assets navigate the challenges brought on by the Covid-19 storm, including sudden demand for telemedicine, the need to make labor cost structures more variable, and operational constraints such as shortages of personal protective equipment.

Certain provider segments, including behavioral health, women's health, veterinary medicine, and home care, gained additional momentum in 2020. Behavioral health specifically has enjoyed increasing



Figure 1: The biopharma and provider sectors accounted for the largest share of deals in all regions

Global healthcare buyout deal count (excluding add-on deals)



Notes: Excludes spin-offs, add-ons, loan-to-own transactions, and acquisitions of bankrupt assets; based on announcement date; includes announced deals that are completed or pending, with data subject to change; deal value does not account for deals with undisclosed values; geography based on the location of targets Sources: Dealogic; AVCJ; Bain analysis

recognition as an important part of integrated care plans, and increases both in the use of behavioral health services by patients and in funding by commercial and public healthcare payers due to the Mental Health Parity Act have driven growth. Given the segment's growth, supply constraints, and the high fragmentation of behavioral health providers, sponsors have identified this space as fertile ground for early buy-and-build opportunities. TPG, invested in behavioral therapy firm LifeStance Health in partnership with Summit Partners and Silversmith, with the goal of fueling geographic and digital growth for the firm. Kelso invested to capture segment growth through its majority stake acquisition of Refresh Mental Health, a national provider of outpatient mental health services.

Medicare Advantage volume continued to spur high-single-digit growth, generating interest from investors accustomed to slower growth from other traditional buy-and-build segments. Well-run providers have been able to profitably manage seniors through the full continuum of care, using at-risk capitated models, and then improve returns further by expanding the range of services they deliver. For instance, TPG is partnering with Kelsey-Seybold Clinic with the intent of accelerating the growth of its accountable care model. And Cano Health is investing to grow its model by going public through the Jaws Acquisition special purpose acquisition company (SPAC). General Atlantic-backed Oak Street Health's IPO and the Welsh, Carson, Anderson & Stowe joint venture with Humana also exemplify this trend of activity among risk-bearing providers.



Home and hospice healthcare investment also continued its upward trajectory as provider care shifts to these channels. To that end, Thomas H. Lee returned to hospice investing, after its successful 2018 exit of Curo, with its acquisition of Care Hospice. As another example, St. Croix Hospice, a US provider of hospice care, was purchased by H.I.G. Capital.

In all segments, tech-savvy providers found that the digital components of their business improved operations and sparked interest among investors. KKR acquired I-800-CONTACTS for \$3 billion to target the longer-term opportunities outside of its core investments strategy, given the growing adoption of e-commerce and telemedicine amid the pandemic.

Biopharma: Strong services assets drove activity

Biopharma's share of North American deal activity in 2020 was fairly stable compared with 2019, with 18% of volume compared with 19% in 2019. Its share of deal value, however, declined to 23% in 2020 from 37% in 2019.

Biopharma services continued to generate the strongest interest from experienced private equity sponsors looking at this sector. The traditional hunting grounds in services, such as contract research organizations (CROs), contract development and manufacturing organizations (CDMOs), and outsourced commercialization services (such as market access, reimbursement, and data and analytics), continued to attract strong investor interest. In general, North American funds appeared more enthusiastic about biopharma services opportunities than about taking on molecule-specific risk.

For instance, Kohlberg and Mubadala acquired a majority stake in PCI Pharma Services, an integrated pharmaceutical supply chain solutions company. Blackstone also invested in biopharma services and took advantage of unique cell and gene therapy logistics through the investment in Cryoport, a provider of storage products maintaining cryogenic temperatures.

Medtech: Tumbling elective procedures created uncertainty for sponsors

Deal count dipped in 2020 for North American medtech, but disclosed value saw a modest increase. Funds did 22 deals compared with 24 in 2019, and value jumped to \$3 billion, from \$2.4 billion in 2019. The sector accounted for 15% of deals in the region but only 9% of the disclosed value.

Uncertainty around the timing of a rebound in elective procedures served as a drag on deal volume. Almost half of the sector's value came from just two deals, but no deal exceeded \$1 billion.

Investors continued to take advantage of opportunities to carve out business units. American Securities acquired the Life Science division of NN, a global industrial manufacturer, for \$0.8 billion in order to combine that company with MW Industries and expand the medical portfolio. Montagu Private Equity acquired RTI's original equipment manufacturer business from RTI Surgical for \$0.4 billion. These carve-outs were likely attractive to investors as opportunities to strengthen category leadership, such as American Securities' MW Industries' leadership in the medical springs market.



Investors also have been looking for medtech firms that can ride the rising tide of consumerism in healthcare. One of the areas that has seen recent growth in consumer demand is veterinary medicine, where Fidelio Capital acquired two firms focused on veterinary orthopedic solutions, BioMedtrix and Veterinary Orthopedic Implants.

Healthcare payers: Smaller transactions in services dominate

Payer activity during the year jumped compared with the recent past, with 20 deals closed, compared with 8 in 2019. Value also saw an increase in 2020 to \$4.4 billion, up from \$3.5 billion in 2019. The most significant payer deal is notable by its absence, as Multiplan traded to a SPAC for \$9.7 billion, rather than to another financial sponsor.

Of the scale transactions that occurred, activity tended to focus on payer-facing services, such as TA Associates' and Francisco's growth investment in Edifecs, an interoperability technology that optimizes the exchange and processing of administrative and clinical data to assure compliance and increase revenue. Investment in payer technology that helps manage cost for employers or improve the consumer experience also was prevalent. For example, Onex invested \$960 million for a majority stake in OneDigital, which provides an online platform for employer advisory services focused on healthcare, wellness, and workplace benefits.

Healthcare IT: Many paths to investment success

After rapidly growing for a number of years, healthcare IT experienced a slight drop in 2020, with 38 deals, down from 42 in 2019. Disclosed value also declined to \$13.3 billion from \$17.1 billion in 2019. However, investors continued to explore the healthcare IT sector on several fronts.

One popular avenue centers on combined payer-employer services technologies that facilitate care and patient management at lower cost. Warburg Pincus and Great Hill Partners invested in Quantum Health, a consumer healthcare navigation and care coordination technology platform that will likely benefit from the trend to payer-employer service technology.

Many investors also see great promise in the modernization of traditional clinical trial development through more efficient trial operation, increased virtualization, and improved solutions leveraging real world data. Carlyle Group acquired a majority stake in TriNetX and hopes to leverage its real-world data platform to refine clinical trial design and patient recruitment.

We also expect continued pressure to modernize healthcare payments in order to streamline transactions between healthcare stakeholders. EQT, CPPIB, and Bain Capital-backed Waystar's \$1.3 billion acquisition of Medicare-focused eSolutions exemplifies this reasoning, as the deal helped to generate a new ecosystem for a broad set of providers to manage payments from both public and commercial payers.



Covid-resilient businesses will make the earliest targets

The fundamental characteristics that make it attractive for private equity funds with ample dry powder will endure. Despite the crisis caused by Covid-19, we expect healthcare's rebound to be stronger than many other industries, and providers to continue as a high-performing sector. Among the standout areas for the coming year, we expect growth or acceleration of a number of trends that have piqued investor interest:

- Risk-bearing providers of next-generation primary healthcare will likely thrive.
- Biopharma services should draw significant interest given their exposure to a high-growth market without the inherent molecule risk.
- Life science tools and diagnostics medtech have also received greater interest following greater demand during the pandemic.
- Payer services that improve patient experience and reduce employer costs will likely garner investor attention.
- Healthcare IT that can demonstrate a strong ROI to users, or facilitate new modes of care delivery, also will maintain momentum.

In every sector, deal activity will focus, at least initially, on Covid-resilient businesses and those that can recover to their baseline performance fastest.



Europe: Steady dealmaking despite many deferrals

Investors seek out platforms in retail health and specialty pharma companies.



At a Glance

- Covid-19 challenged healthcare asset acquisition processes across Europe. Yet activity dipped only slightly to 75 deals, down from 80 in 2019. Further, accounting for the lack of megadeals such as the \$10.1 billion Nestlé Skin Health transaction in 2019, disclosed values still reached \$14.0 billion, down from \$19.7 billion the year earlier.
- The healthcare provider sector accounted for the greatest share of disclosed value, driven by investor interest in private providers and post-acute care even as many segments suffered from lockdowns.
- Specialty pharma generated strong activity within biopharma, especially targets that can establish defensible niches. The year also saw significant deal volume in medical and commercial pharma services.
- In healthcare IT, investors primarily went after national champions that have an opportunity to capture white space in their home country and potentially expand across borders later.

Healthcare buyout activity in Europe maintained historically high levels through 2020, despite fierce headwinds related to the Covid-19 pandemic. Deal count merely dipped to 75 compared with 80 in 2019, a clear sign of the market's resilient underlying characteristics. Total disclosed value declined to \$14.0 billion from \$19.7 billion in 2019 due to various reasons.

Several known, large deals did not officially disclose values, and no deal materialized that approached the \$10.1 billion Nestlé Skin Health acquisition in 2019. In addition, Covid uncertainty widened bidask spreads and caused investors to defer some buyout processes or to investigate opportunities for selling without launching a full process. Given these factors, combined with the continued high deal volume, we remain bullish on healthcare investment opportunities in Europe.

Three investment trends stood out in 2020:

- efforts to deliver health and social care in more effective and efficient ways through private healthcare providers and the ongoing shift to non-acute settings, which were both accelerated by the pandemic;
- development of specialty pharma platforms, and significant growth in the supporting services space, especially medical and commercial firms and contract development and manufacturing organizations (CDMOs); and



• national healthcare systems' focus on enhancing their IT solutions in the wake of Covid tracing and interoperability requirements, plus emerging opportunities to create multicountry platforms, which raised expectations for a larger, longer-lasting wave of healthcare IT consolidation.

Healthcare providers: New opportunities in home care and retail health

The healthcare provider sector accounted for the greatest share of deal value in Europe, rising to \$9.4 billion from \$2.4 billion the previous year, despite several processes being delayed by the pandemic and subsequent lockdowns. Volume dropped slightly from 28 to 31 the previous year.

Investors are still attracted by the resilience of the provider space. They increasingly recognize the opportunity for private providers to deliver effective health and social services and grow through innovation, capital investments, and optimization of their organizations. This applies to the home care space, which also benefits from the ongoing shift away from acute settings, where Ardian made a majority stake investment in Santé Cie, a French home medical assistance provider. It also applies to traditional hospital networks, as illustrated by KKR's \$4 billion acquisition of French private health-care operator Elsan.

Moreover, if assets can be combined, there are advantages to large-scale, cross-border consolidation, namely the mitigation of idiosyncratic regulatory risk inherent in exposure to one single system. Orpea, for example, has used acquisitions over the past several years to grow into a multinational firm with facilities in 22 countries. However, the fundamental constraints of language and reimbursement system differences continue to limit both synergies to variable costs and to improved financing.

Turning to retail health, the sector faced significant challenges as the lockdown caused lower transaction volumes and broad postponement of deal processes. Some headwinds could continue in 2021 as any economic challenges could affect patient volumes for self-funded and discretionary treatments. Yet investors remain keen to find opportunities to explore different themes that could raise volumes in the coming years.

Provider uncertainty could accelerate consolidation processes, especially in the fragmented southern and eastern European markets. We also expect greater interest in segments characterized by scarce capital equipment, notably ophthalmology and radiology. Investors have been more skeptical about traditional segments such as dental, primary care, and behavioral health, especially in the northern and western parts of Europe, where in-country consolidation is already advanced and cross-border synergies are limited, while regulatory bodies in the core French and German geographies maintain high levels of physician independence.

Biopharma: Specialty pharma and services dominate the scene

On the heels of several strong years, biopharma activity in Europe again ticked higher with 35 deals, up from 24 in 2019. Because a number of large deals did not disclose value—39 of the 150 biopharma



deals did not disclose value—the \$4.1 billion total likely underrepresents the true value of private equity activity in the sector during 2020. Investors showed keen interest in specialty pharma and pharma services.

In specialty pharma, investors sought targets demonstrating an ability to establish defensible niches that may be too small for larger companies, especially targets with some differentiated intellectual property or capability that provides a competitive moat. For instance, Neuraxpharm, a CNS pharmaceutical company, has developed differentiated dosage forms and strengths that have been critical to its success with patients and prescribing physicians. Other assets drawing attention included category leaders that specialize in a specific therapeutic area allowing the company to gain scale, geographical leaders, or companies that feature chronic illness portfolios, such as Covis Pharma, a therapeutic developer for life-threatening conditions that was acquired by Apollo.

This past year also proved a turning point for pharma services, as activity that had long been anticipated began to materialize. Scalable assets providing meaningful returns across the spectrum of services, especially medical affairs, commercial services around launch, and R&D beyond contract research organizations attracted investors trying to build broad services platforms from these relatively fragmented markets. Huntsworth Health (acquired by CD&R for \$0.7 billion), Envision Pharma Group (acquired by GHO Capital Partners and Mubadala), and Fishawack (acquired by Bridgepoint) represent just some of the noteworthy pharma services deals completed in 2020.

CDMOs generated investor interest in two categories. The first category consists of CDMOs that offer scalable and efficient services across the pharma value chain. For example, Ardena, a multiservice CDMO with services spanning the pharma development life cycle, was acquired by GHO Capital Partners. The second category includes CDMOs with an established niche that certain pharma segments depend on. Here, 3i Group acquired Cellon to add to its newly established single-use bioprocessing platform offering products and services.

Businesses in the cell and gene therapy space have also begun to attract interest. This is especially true when related to adjacent investments, such as ultra-cold chain, transfection reagents, and other life science tools. These have benefited from underlying cell and gene therapy tailwinds without the associated risks of therapy development. An example is Polyplus, a producer of reagents used in gene therapy development, getting coinvestments from Archimed and Warburg Pincus.

Medtech: Smaller firms struggle to compete with larger, consolidated companies

Medtech remained the smallest of the major healthcare sectors for investors in Europe, with deal volume dropping to 10 for the year, down from 24 in 2019. The pandemic had a dampening effect, of course. In addition, small and medium-size firms face stiff competition from larger companies and continue to bear the costs of implementing new Medical Device Regulation, which established a higher data standard on devices approved for use, despite Covid-related delays to regulation implementation (now scheduled for May 2021).



Niche assets in attractive segments and geographies that show potential for category leadership will remain the most attractive targets. However, competition from corporates to acquire these assets, especially smaller assets generating real innovation, is intense.

Healthcare IT: Investors seek national champions that can expand into white spaces

European healthcare IT deal volume was consistent with 2019, with five completed deals in 2020. Investors sought national champions of specific solutions that can grow by addressing white spaces in the market, while gaining share from the smaller companies and benefiting from the push by public healthcare systems toward digitization and interconnectivity among facilities.

Firms in this sector took another step in the development of European healthcare IT platforms providing electronic medical record (EMR) solutions and additional modules for public and private providers. Dedalus, a healthcare software developer owned by Ardian, focuses on such international expansion and further developed their cross-border EMR platform through the acquisition of DXC, an EMR solution with significant presence in the UK, Spain, and a number of other countries. However, progress and investor success still hinge on a target's ability to tailor solutions that address country-specific needs and regulations, which historically have limited the opportunities for expansion across national borders.

Software companies with a large share in niche markets also attracted interest. These smaller segments often have fewer software solutions, offering strong expansion opportunities for private equity investors. For instance, Carlyle invested in MAK-SYSTEM, a global blood management software system solution provider for blood services, plasma collectors, and hospital markets.

Finally, it is worth noting greater interest in telemedicine, fed by the growth of omnichannel health-care offerings, and in software-enabled services for pharma and medtech companies. This interest includes a meaningful bet that, post-Covid, many norms in the European healthcare sector will give way to a rapid deregulation, opening opportunities for expansion.

Investors that postponed deals will deploy ample dry powder

The availability of strong healthcare assets in Europe, particularly in the provider and biopharma sectors, should pick up the pace of investment in 2021. Postponed processes will likely begin again after widespread vaccination and the much-anticipated end of lockdowns. In the meantime, deals will likely continue outside of standard processes, as private equity funds have ample dry powder to deploy, as well as new capital from higher allocations to healthcare from both general partners and limited partners. Investors with healthcare experience and those new to the industry are both expected to spur strong activity in the region.

Although regional and local dynamics make some European assets difficult to understand, many can offer operational upside and protection over the typical life of an investment. Local complexities, coupled with the intense competition for good assets, require careful due diligence, specific angles to value creation, and active portfolio management, but can result in above average returns.



We expect to see the following trends leave their mark in 2021:

- further focus on private providers, especially in post-acute care and some retail health verticals;
- activity in the pharma outsourcing space, including consolidation of medical and commercial services, and investment in niche CDMOs with strong technology and capabilities;
- healthcare IT activity in niche segments and across borders;
- a focus on technology that enables gene and cell therapy, including for adjuvants, carriers, and vectors for RNA-based products and manufacturing facilities for mRNA; and
- potential activity in nonpremium medical device assets that benefit from increasing commoditization of categories.



Asia-Pacific: Riding a wave of domestic innovation

Investors seek out platforms in retail health and specialty pharma companies.

At a Glance

- Macro trends and favorable government policies again lifted healthcare activity in the region, which saw a surge in buyouts to a record high 156 deals during 2020, up from 68 in 2019. Disclosed value reached a new peak of \$16.9 billion compared with \$11 billion the year earlier.
- Biopharma fueled much of the rise as the most active sector, accounting for over half of the region's deals.
- Asia-Pacific healthcare investors increasingly focused on domestic innovation in biopharma and medtech, especially in China where the government has supported development of local companies through various incentives.
- Healthcare IT buyouts, including health tech, through sponsor investments and initial public offerings also were active.

We've kept an eye on small venture healthcare assets in the Asia-Pacific region for years, and 2020 demonstrated that these are evolving into growth equity opportunities for healthcare investors.

While other regions experienced declines in volume and disclosed value, the number of buyouts in Asia-Pacific during 2020 rose sharply to 156 deals, compared with 68 in 2019. Further, disclosed values in Asia-Pacific shot up to a new high of \$16.9 billion, compared with \$11 billion the prior year. Strong growth in biopharma fueled much of the rise as the most active sector, with 86 deals in 2020 vs. just 28 in 2019. Healthcare provider deals, historically the most active sector, saw a more modest increase to 39 for the year, up from 29. China led the way in overall activity, accounting for just over 60% of deals in the region, up from 41% in 2019 (see Figure 1).

Asia-Pacific investors have focused their sights on healthcare in hopes that their knowledge of the local landscape will give them an advantage. Increased appetite in capital markets for healthcare companies in the region has pushed valuations higher. Additionally, private equity sponsors have also become more willing to invest in early-stage assets alongside venture partners given misalignments in supply and demand for attractive, mature healthcare targets.

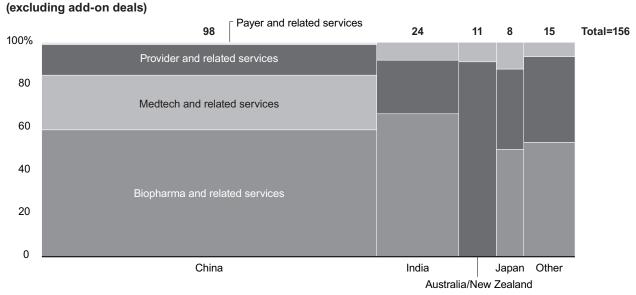
Regional trends and government policies lift domestic companies

Underlying the region's growth are several powerful macro trends: an aging population, increasingly affordable care, and a shift to universal healthcare coverage in markets such as India, Indonesia, and the Philippines.

In the policy arena, many governments are offering incentives for local manufacturing and development of healthcare products, such as China's expanded reimbursement for innovative drugs. In parallel,

Figure 1: Most Asia-Pacific healthcare deal activity occurred in China and India

Asia-Pacific healthcare buyout deal count



Notes: Excludes spin-offs, add-ons, loan-to-own transactions, and acquisitions of bankrupt assets; based on announcement date; includes announced deals that are completed or pending, with data subject to change; deal value does not account for deals with undisclosed values; geography based on the location of targets; other includes Thailand, Vietnam, Indonesia, Philippines, Bangladesh, Malaysia, Singapore, and South Korea Sources: Dealogic; AVCJ; Bain analysis

governments are pressuring local and multinational incumbents through centralized volume-based drug and medtech procurement policies. These interventions should help level the playing field and fuel further local innovation, particularly in biopharma and medtech.

Besides these macro trends and government interventions, Asia-Pacific's adoption of digital health solutions is quickly outpacing other regions, skipping some of the stages more mature economies passed through and going straight to next-generation solutions.

Healthcare providers: Hospital deals in emerging markets, non-hospital deals in established markets

Buyouts bumped up to 39 deals, compared with 29 in 2019, with a different emphasis in emerging and established markets.

In emerging markets with less developed provider infrastructure, investors tended to focus on hospital targets such as acute care centers providing multidisciplinary or general care. For example, GIC, the Singaporean sovereign wealth fund, in partnership with Vingroup, invested in the Vietnamese private hospital operator Vinmec for \$203 million. A similar health center deal was made by TPG Growth, which purchased Apollo Hospitals Dhaka. Finally, KKR bought Saket City Hospitals as part of the Max Healthcare platform, its buy-and-build platform in India that went public in 2020.



In more developed markets, by contrast, non-hospital provider deals involving alternative sites or specialized care garnered more investor interest. Nichii Gaakan, a Japanese provider of senior care, was acquired by Bain Capital for \$1.6 billion, the region's largest provider deal for the year. Similarly, Juvis, a South Korean obesity treatment and management provider, was purchased by STIC Investments.

In Australia, interest in primary care providers jumped in 2020, highlighting the segment's importance in the face of Covid-19. Private equity funds finally began to focus on scale platforms of general practice providers in the region. For instance, Healius, which operates medical centers across Australia, was acquired by BGH Capital for \$343 million. Later in the year, Livingbridge invested in Better Medical and Smart Clinics, and intends to combine the two general practice groups to form the fifth-largest practice platform in the country.

Biopharma: A surge of activity

Activity exploded during the year with a marked increase in deals to 86, up from 28 in 2019. Several investment themes led the way.

First, investors continued to promote promising cell and gene therapies in developed markets. For instance, CARsgen Therapeutics, a clinical stage immuno-oncology firm focused on CAR T-cell therapies in China, received a \$186 million investment from Loyal Valley Capital. Curocell, a South Korean developer of CAR T-cell therapies for cancer, also received a consortium investment.

Second, investors demonstrated greater willingness to take on molecule-specific risk in early-stage investments in China, where the government has invested to bring drug innovation onshore through various incentives. Of the 86 biopharma deals in the region, 58 were Chinese. Further, Chinese targets accounted for 16 of the 24 deals exceeding \$100 million in disclosed value. For example, Hualan Biological Engineering, a China-based company engaged in the R&D of bacterial vaccines, viral vaccines, and plasma products, received a \$290 million investment from Hillhouse.

The third theme concerns interest in Indian biopharma supply chain assets as the sector continues to diversify supply chains beyond China. JB Chemicals and Pharmaceuticals, a manufacturer for pharmaceutical formulations, received a roughly \$410 million controlling stake investment from KKR, and Carlyle acquired a controlling stake in SeQuent, an animal health-focused pharmaceutical company, for \$215 million.

Medtech: Developing local companies

Medtech experienced a surge in activity, reaching 30 deals for the year compared with 10 in 2019. Fully 25 of those 30 deals were with Chinese companies.

In China, the government has encouraged development of local medtech ecosystems and has instituted a volume-based procurement program to help local firms, with the government acting as a negotiator for all hospitals in the country. This has spurred investment interest in newly growing innovative local assets, especially for high-value consumables.



For example, Shanghai MicroPort CardioFlow Medtech, a producer of cardiac valve intervention devices, received investment from a consortium of buyers led by Hillhouse Capital for \$130 million. Hillhouse also led a 2019 pre-IPO investment in Peijia Medical, a medtech developer focused on heart valve disease, and the company raised \$348 million through an IPO in 2020.

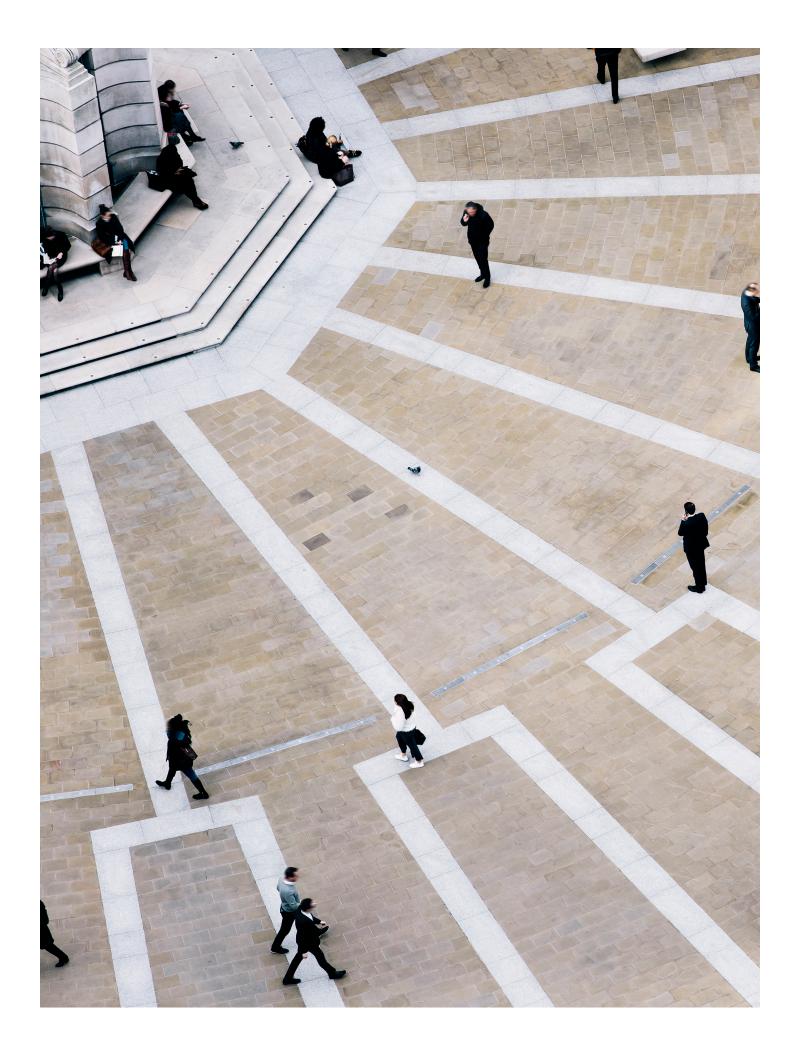
Healthcare IT: Sponsor investments and IPOs

Healthcare IT, including health tech, logged only five deals, though sponsor investments and IPOs remained active channels for moving these assets. Trustbridge Partners, as well as Hillhouse Capital and Tencent Investment, led a \$500 million investment in DXY, a leading Chinese digital health platform. And JD Health, the digital-health arm of the Chinese e-commerce company JD.com, received \$830 million in pre-IPO investment from Hillhouse, then raised \$3.5 billion through its IPO.

Searching for assets that show early signs of a rebound

Given the growth trajectory that Asia-Pacific has shown, we expect investors to continue showing keen interest here, especially considering the sharp growth of local innovation from high-tech biopharma and medtech targets and the strong demand for high-quality care in emerging Asia-Pacific. As private equity funds look for ways to put their capital to work, we expect fast transactions for those assets that can show early signs of returning to past performance levels. A few themes should continue to play front and center in the region:

- diversification of supply chains for medtech and biopharma, to reduce risk to drug and device developers;
- a growing need for healthcare IT and digital solutions that fit within the region's provider models; and
- provider growth fueled by the reopening of medical tourism markets after the pandemic abates.

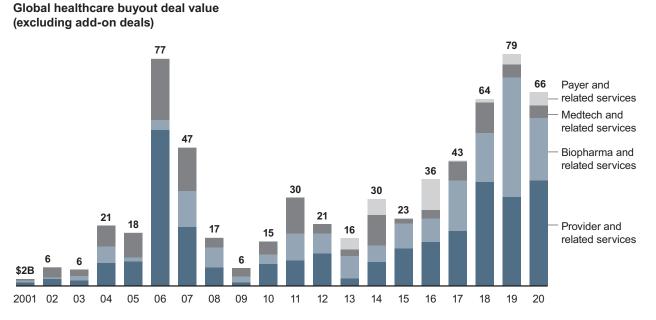


4. Sector trends

Overview

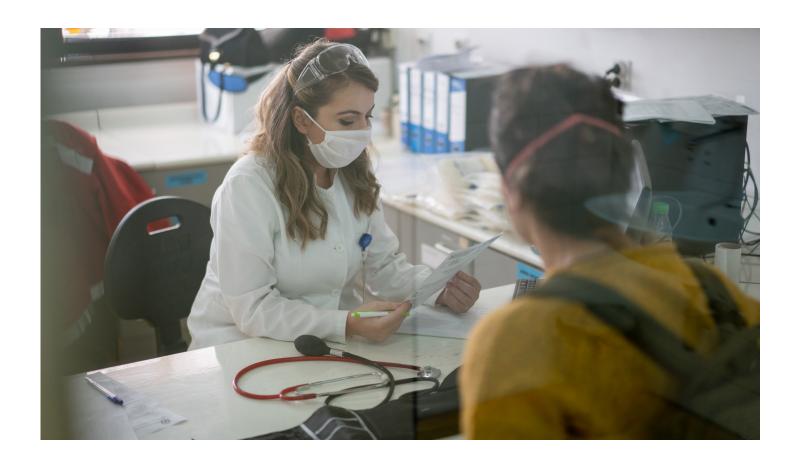
The biopharma sector surged, earning the top spot this year as the most active healthcare sector by deal volume. Historic private equity investor interest in healthcare providers hardly dipped, as this sector trailed biopharma by only a few deals. Healthcare payer activity grew, but volume is still limited by the available pool of assets. Medtech volume rose slightly, although the sector tends to fluctuate so any single year does not indicate a larger trend (see Figure 1). Healthcare IT remained a hot space for investment, with volume consistent with a banner 2019.

Figure 1: Disclosed deal value dropped from the 2019 high, primarily due to the decline in biopharma



Notes: Excludes spin-offs, add-ons, loan-to-own transactions, and acquisitions of bankrupt assets; based on announcement date; includes announced deals that are completed or pending, with data subject to change; deal value does not account for deals with undisclosed values Sources: Dealogic; AVCJ; Bain analysis





Providers: New roll-up candidates and a new look for risk-bearing providers

Consolidation accelerates in fragmented segments such as behavioral health, women's health, and retail health.

At a Glance

- Investors closed 145 healthcare provider deals in 2020, slightly down from the 159 deals closed in 2019, with disclosed value rising to \$35.8 billion, topping two banner years in 2018 and 2019.
- Providers were hit hard by Covid-19, with investors facing widening bid-ask spreads, often due to challenges in aligning on a pandemic-adjusted steady-state level of earnings.
- Three major investment themes have spurred multiyear deal activity: consolidation of fragmented specialties and sites of care, with the pandemic accelerating this trend; risk-bearing providers offering opportunities for outsized returns when they have a proven model for managing costs; and healthcare IT providing solutions in alternative sites of care.
- Looking ahead, large-scale providers stand to thrive in the near term by effectively capturing pent-up demand, and over the longer term by providing a better value proposition to physicians and better outcomes for patients.
- A number of larger provider assets should come to market in the next 18 months. Many went through significant M&A during the previous holding period, making it particularly important to understand the cohesiveness of the current business as well as the future M&A runway.

Despite the acute challenges presented by Covid-19, healthcare provider disclosed deal value increased to \$35.8 billion in 2020 from \$30.3 billion in 2019. However, deal count dipped to 145, compared with 159 in 2019. North America was the primary source of deal declines with 74 deals, or 51% of the total, down from 96 in 2019. The Asia-Pacific region actually saw an increase in deals, with 39 in 2020 vs. 29 in 2019, but that was partially offset by small declines in Europe, where both Covid-19 and regulatory restrictions on healthcare provider investments had a dampening effect.

The increase in disclosed value may be understated, as many sizable assets changed hands without disclosing value, such as the Kelsey-Seybold Medical Group's partnership with TPG Capital.

Three major investment trends characterized healthcare provider deals during the year:

- Continued consolidation of fragmented specialties and sites of care, with the pandemic accelerating this trend. Activity clustered in a few new areas, such as outpatient psychiatry and women's health, as well as other more traditional areas, including veterinary and home care.
- Risk-bearing providers with proven models for managing costs.
- Healthcare IT solutions serving alternate sites of care with attractive underlying growth profiles.

Continued consolidation of fragmented specialties and sites of care

Healthcare providers have experienced a wave of consolidation producing large platforms in segments such as retail health and certain outpatient specialties such as dermatology. The pace of deal activity now is picking up in traditional areas of interest and other fragmented segments, including behavioral health and women's health.

Behavioral health companies' growth has been spurred by socioeconomic conditions that include population growth, the rising prevalence of mental health and substance abuse conditions and diagnoses, growing patient use of treatment options, and favorable regulatory and reimbursement trends. Providers in outpatient mental health, opioid and other substance abuse, eating disorders, and autism all have seen rising demand, boosted in some cases by the pandemic.

Indeed, demand outstrips supply in this fragmented segment. During the year, investors sought to acquire and to professionalize companies, then scale them up through geographic expansion (both organic and through M&A), improved patient and referrer outreach, and building out the operational infrastructure, including healthcare payer contracting, an approach that is still in early stages.

Like other provider buy-and-build strategies, this one allows behavioral health companies to centralize back-office functions, to strengthen their negotiation position with payers, and to invest in professionalizing patient experiences, such as referrals and digital offerings.

This logic underpinned several deals in behavioral health: Priory Group (acquired by Waterland), LifeStance Health (investment by TPG Capital in partnership with Summit Partners and Silversmith Capital Partners), Evolve Treatment Centers (acquired by Galen Partners), Comprehensive Educational Services (investment by General Atlantic), and Refresh Mental Health (majority stake acquired by Kelso).

Women's health also saw significant interest in 2020. This area holds the promise of a significant M&A runway given fragmentation in the market, the ability to better manage the cost of pregnancies, and the potential to expand a variety of ancillary services. Investors thus are eager to explore the value proposition that a scale platform can create. For instance, Altas Partners recently acquired a majority stake, partnering with Ares Management, in Unified Women's Healthcare, an obstetrics and gynecology physician management group.

Specialty practice platforms drew investors who looked beyond temporary Covid-related dislocations to back platforms in areas where they had conviction in the long-term outlook and value of a scale platform. For example, Webster Equity Partners backed Retina Consultants of America in eye care and One GI in gastrointestinal care.

Although **retail health** broadly experienced fewer private equity deals in 2020, several pockets were active.

Veterinary clinics and pet care, for instance, have benefited from increased spending on pets and the broader consumerization of health care, in addition to the same underlying buy-and-build dynamics described above. These factors played into the acquisition of Pathway Vet Alliance, an owner and operator of veterinary care facilities across the US, by TSG Consumer Partners. And Summit Veterinary Pharmacy, a Canadian veterinary compounding pharmacy, received an investment from Persistence Capital Partners.

Within physical therapy and dental care in North America, the pandemic squeezed patient volumes during lockdowns, which may have motivated some smaller providers to consider becoming part of larger practices. For instance, US Physical Therapy, a national operator of over 500 physical therapy clinics that has employed a buy-and-build growth strategy in the past, acquired both a four-clinic outpatient physical therapy practice and a three-clinic physical therapy practice last year. The pace of demand returning to pre-Covid levels will help determine the urgency with which small operators evaluate joining broader platforms.

In Europe, on the other hand, proven types of retail healthcare—those with a high share of self-pay or owners of scarce capital equipment—have kept consolidating as investors look to improve on previous attempts to buy-and-build with fragmented assets across different countries. Magnum Capital, for example, acquired Clinica Actual (also known as Clínica Galena), a provider of plastic surgery and cosmetic medicine. Capturing the benefits of scale can be difficult, given the disparate health service relationships in each country, but investors still see this as an attractive space.

Other segments such as dental, primary care, and behavioral health have met more skepticism in northern and western Europe, where in-country consolidation is already advanced, cross-border synergies are limited, and regulatory bodies maintain high levels of physician independence. Southeastern European countries offer abundant opportunities for consolidation, but synergies may be tough to capture in lower-funded systems with low levels of self-pay.

Home care and hospice have benefited from the secular shift away from facility-based care, another trend accelerated by the pandemic. Lower-cost alternative sites of care gained attention from investors hoping to capture share in this high-single-digit growth market. For home-based providers, the infusion of private equity helps them expand the acuity level of the patients they treat. Moreover, many such providers have been run by nonprofit organizations, with highly variable levels of resources, which can potentially realize significant gains from standardizing and professionalizing their operations. We are also seeing interest in models targeting specific populations with a more holistic care approach, such as Programs of All-Inclusive Care for the Elderly.

Several deals in 2020 illustrate this theme. For instance, Help at Home, a provider of personal care services, was purchased by Centerbridge Partners and Vistria Group in a move to expand the company's platform to new patient populations. Thomas H. Lee backed SeniorLink, a tech-enabled home-based senior care platform. Other deals include EQT's \$2.6 billion buyout of Colisée Patrimoine Group, which offers home care in addition to a spectrum of post-acute offerings, and the investment in InnovAge by Apax Partners, which coinvested alongside Welsh, Carson, Anderson & Stowe.

Of course, traditional provider acquisitions also occurred in Europe and developing nations in Asia-Pacific. For instance, KKR paid \$4.1 billion to acquire French private healthcare operator ELSAN, and GIC invested \$203 million in the Vietnamese private hospital operator Vinmec.

Risk-bearing providers with proven models for managing patient cost and outcomes

Risk-bearing primary care providers using a capitated revenue model, typically with Medicare Advantage patients, have captured the attention of many investors in the US. These businesses offer scale-up opportunities for well-run healthcare providers that can manage the cost and risk of a senior patient pool. As these companies grow, investors that instill strong operating practices can deliver care profitably and expand the range of patient services under one umbrella, leading to above-average returns and growth observed in the high single digits.

Cano Health's initial public offering through a special purpose acquisition company, Jaws Acquisition, is a prime example of a Medicare Advantage provider investing to grow its value-based care model. Similarly, the Kelsey-Seybold Medical Group's partnership with TPG Capital followed this Medicare Advantage trend. Humana and Welsh, Carson, Anderson & Stowe also formed a joint venture to open additional Medicare-focused primary care facilities.

Healthcare IT solutions serving alternate sites of care

Provider healthcare IT activity dipped to 33 deals in 2020, down from 36 in 2019. However, disclosed value rose to \$11.8 billion from \$10.1 billion the year earlier. The year 2020 saw an ongoing shift of care to alternative sites, and technology used in these sites continues to draw investor interest. As just one example, Hg Capital invested in Intelerad Medical Systems, a provider of medical imaging software and workflow solutions to radiology groups.

In Europe, previously reluctant investor sentiment around healthcare IT is shifting more positive, because of the high compliance burdens of the General Data Protection Regulation, post-Covid tracing and potential interoperability requirements, and the associated need for new technology solutions to solve these problems.

Outlook: A premium on operational excellence

Healthcare providers were hit hard by the direct effects of Covid-19, with the gap in expectations widening between buyers and sellers who often could not agree on a Covid-adjusted steady-state EBITDA. Looking ahead, developing a baseline understanding of provider performance apart from the pandemic's effects, and identifying true gems for acquisition will be a challenge for investors. Broadly speaking, providers that can demonstrate faster rebounds in patient volume and revenue will stand out.

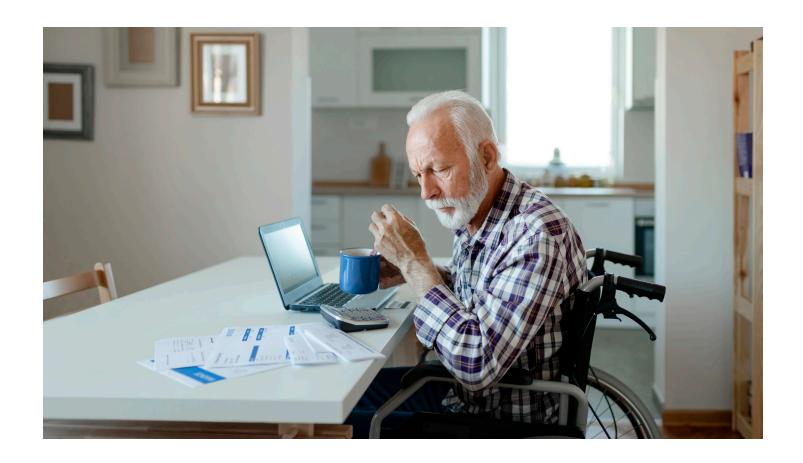
That said, we expect a few themes to motivate investments over the next year:

 Investors will hunt for physician practice management buy-and-build opportunities in new specialties, such as cardiology, gastroenterology, and urology, as well as those segments discussed above.



- Risk-bearing healthcare providers will continue to attract attention, as investors look to create the next Oak Street Health.
- The rise of enabling technologies, such as revenue cycle management and electronic medical records, used as tools to support buy-and-build platforms and telemedicine, also holds promise.
- In Europe, potential healthcare personnel shortages could create opportunities for well-run providers to improve overall utilization as they develop attractive employment options, while disadvantaged players may revert to staffing solutions or seek to consolidate with larger entities.
- Providers in growing care settings, such as behavioral health, often have to leverage inadequate, internally developed software tools, or repurpose those intended for a different setting. Vendors have an opportunity to develop purpose-built solutions in these underpenetrated segments.

Finally, we expect a number of assets that have grown through acquisitions over time to come to market based on historical holding periods and a desire for their owners to monetize the increased value. However, as investors run due diligence of these assets, they will need to get comfortable with both the existing business and the potential runway for additional M&A. Even if the current business does not need to be firing on all cylinders, private equity sponsors should be sure that the foundation is in place to instill operational excellence at the existing sites and the future acquisitions.



Payers: A bid to reduce costs for patients and employers

The most successful companies have been able to demonstrate an ROI for both groups.



At a Glance

- Healthcare payer buyout activity in 2020, including services sold to self-insured employers, more than doubled to 23 deals, from 10 in 2019, and disclosed value increased to \$4.4 billion, compared with \$3.6 billion the year earlier.
- Three private equity investment themes stood out: direct-to-employer offerings that improve patient experience and lower employer costs, IT capabilities designed to reduce payer cost positions, and expansion of services to the growing Medicare Advantage population.
- We expect investors to keep hunting for assets focused on cost reduction and care improvement, as the most successful companies in the sector are able to demonstrate a measurable ROI for both patients and employers.

Healthcare payer buyout activity in 2020 was driven by North American deals, given the private payer system in the US. There were 23 deals, up from 10 in 2019. Disclosed value also increased to \$4.4 billion from \$3.6 billion in 2019.

Private equity investments centered on three themes:

- direct-to-employer offerings that improve patient outcomes and lower costs;
- IT capabilities designed to reduce payer cost positions; and
- expansion of ancillary services to the growing risk-bearing Medicare Advantage (MA) providers.

Direct-to-employer offerings to improve patient outcomes and reduce costs

Care management companies, focused on offerings for self-insured employers and patients, sparked enthusiasm among investors. These firms partner with employers and offer the dual value proposition of providing benefits to employees while lowering health expenses.

One deal exemplifying this trend from 2020 was Quantum Health, a care navigation and coordination company that received an investment by Warburg Pincus in partnership with Great Hill Partners. Quantum works closely with patients throughout the care continuum. For instance, it engages with members at the time of prior authorization to help manage care utilization and navigation to in-network healthcare providers, in addition to providing care coordination and patient follow-ups. Similarly, Grand Rounds, which secured a \$175 million investment from The Carlyle Group, provides virtual expert medical opinions with specialists in addition to broader benefits navigation.

On the pharmacy side, employers also turn to pharmacy benefit managers (PBMs) and related service providers to improve patient outcomes and lower their prescription costs. PBM-related service companies—firms that provide technology or consultative services to employers or other pharmacy intermediaries on managing PBM services—have garnered interest from investors due to their technology and clinical advisory support. Attractive targets have shown that they can help simplify administration and reduce the cost of drugs to employers and their members.

For example, Advent invested in RxBenefits in partnership with Great Hill Partners. RxBenefits provides services and analytics to self-funded employers to aid in pharmacy benefit plan design and optimization. Further, RxSense, invested in by Parthenon Capital Partners, provides a cash pay discount card under the SingleCare brand, as well as a broader pharmacy benefits platform solution for employers.

IT capabilities designed to reduce payer cost positions

Payers are increasingly looking to leverage the mass of data that they generate and to improve upon older, often siloed, legacy technology infrastructure. One goal is to better use their data to make operations more efficient. Several deals from 2020 support the flow of payer data among various healthcare stakeholders, ultimately enabling better decisions and outcomes.

For instance, TA Associates, in partnership with Francisco Partners, acquired a majority stake in Edifecs, which helps payers optimize the exchange and processing of administrative and clinical data, automate workflows, and reduce the cost of regulatory compliance. Deerwalk, acquired by GTCR portfolio company Cedar Gate, aggregates and helps analyze patient data, which is shared to support insights for payers, third-party administrators, and employers.

As mentioned above, other deals focus on core payer operations and on improving existing baseline tech and infrastructure. Administrative systems support business activities such as claims processing and policy administration. These digital offerings provide shorter plan configuration lead times, lower administrative costs, higher interoperability, and greater visibility into incoming claims through strong data management. Healthedge, acquired by Blackstone, offers a digital platform for claims and benefit administration and care management assistance, ultimately helping payers manage existing plans and enroll new participants.

Expansion of services to growing Medicare Advantage providers

Private equity investor interest in Medicare Advantage (MA) plans has grown alongside increasing MA enrollment. As consumer interest in these plans grows, so has competition, and the need for plans to differentiate themselves in the MA market has become apparent. As a result, sponsors have shown interest in supplemental benefits that support patient health and can help create such differentiation. Food services were the most active supplemental benefit for investments during 2020, though we expect others to spark activity in the future.



PurFoods and GA Food, invested in by Berkshire Partners and Warburg Pincus, respectively, illustrate this movement to supplemental benefits, providing tailored, home-delivered meals for MA patients. This also fits in a broader theme of payers looking more closely at social determinants of health, including food security and nutrition, as a means to improve outcomes.

Additionally, several deals in marketing services for MA plans also occurred in 2020. Similar to supplemental benefits, these services aim to help differentiate plans and increase patient recruitment.

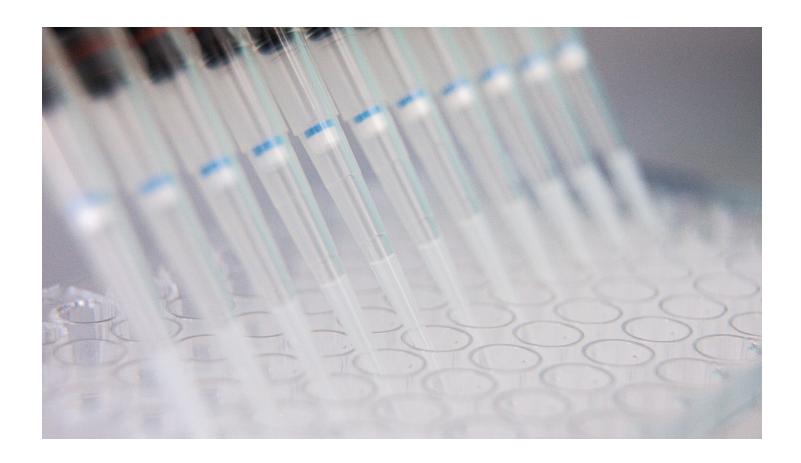
Lightyear acquired a controlling stake in Healthplan One, which offers digital marketing and distribution of senior health insurance products in the Medicare space, matching people with the right insurance. Similarly, Benefytt, bought by Madison Dearborn, offers health insurance technology and distribution of Medicare-related plans to assist individuals in finding an appropriate MA plan.

Still in search of affordability

Over the next year, we expect investors to keep hunting for assets focused on cost reduction and care improvement, as the most successful companies in the sector have been able to demonstrate a measurable ROI for patients and employers. In 2020, this trend was illustrated by one of the largest health-care exits, Multiplan's \$9.7 billion exit to the public market via a special purpose acquisition company.

We also expect growth in MA supplemental services to continue. Additional services, such as patient transportation and vision services, should garner investor activity as healthcare payers aim to differentiate their offerings to the growing MA population.

Another notable trend to watch involves moves by large payers to offer more robust, coordinated, and well-funded healthcare services to other plans, third-party administrators, and providers. The net effect on payer deals is too early to call, because these offerings may create opportunities for sponsor assets, but could also pose a longer-term threat given the additional competition they will present to deals in the payer sector. One example is Cigna's Evernorth, a new brand offering benefit management, behavioral and clinical care plans, and pharmacy benefits for partner providers that want their own sponsored plans, but lack experience in pricing or risk assessment.



Biopharma: Commercialization support services are thriving

Other private equity deal themes range from modernizing clinical trials to cell and gene therapy.



At a Glance

- Biopharma private equity buyouts remained strong, with the number of deals increasing markedly to 150 from 85 in 2019.
- However, disclosed deal values declined sharply to \$21.4 billion from \$40.7 billion in 2019, due to a lower number of deals valued at over \$1 billion.
- Biopharma deal flow suffered less than other sectors from Covid-19, with investors targeting pharma services investments in North America and Europe. The Asia-Pacific region saw the most deals, including a large number of smaller, earlier-stage investments, often with direct molecule risk.
- Major investment themes included commercialization platforms, modernization of clinical trials, specialty pharma, and cell and gene therapy.

After a banner 2019, disclosed biopharma deal value dropped sharply to \$21.4 billion in 2020 from \$40.7 billion, given a decline in very large deals and no megadeals like the Nestlé Skin Health \$10.1 billion deal in 2019. Still, value was higher than all other years prior to 2019, and volume surged to 150 deals, up from 85 in 2019.

This robust investment performance occurred despite the Covid-19 disruption to clinical trials and commercialization, suggesting that the underlying fundamentals of biopharma remain intact. Funding of investments in therapeutics, as well as M&A activity by corporates, remain strong, with highlights including Gilead's \$21 billion acquisition of Immunomedics and AstraZeneca's recently announced acquisition of Alexion for \$40 billion.

From a geographic perspective, the Asia-Pacific region drove the highest total disclosed value—\$9.3 billion or 44% of global value—and volume at 86 deals. Deals in this region tended to be relatively small, and included a number of earlier-stage investments, often in structures that look more like venture deals.

North America's activity notched 37% of global value at \$7.9 billion. It leaned heavily on biopharma services, including commercialization services, packaging and manufacturing, and specialty contract research organizations (CROs).

Europe, meanwhile, tallied 19% of total value at \$4.1 billion with some large deal values remaining undisclosed. The region saw a number of large specialty pharma deals, with more activity likely to come in 2021.



Services flourished in North America and Europe

Although Covid-19 had a negative effect on clinical trials, biopharma deal volume did not suffer as much as other healthcare sectors, and there was appreciable deal flow despite difficult conditions. In particular, supporting services in North America and Europe remained an avenue for investors who wanted to invest in pharma but avoid molecule-specific risk.

Commercialization support services, in particular, thrived during the year, with a variety of transactions focused on companies supporting sponsors across capabilities including medical affairs, patient support services, payer services, marketing agencies, and distribution. We expect this trend to continue given the importance of sponsors realizing strong returns on approved products and given growing numbers of smaller biopharma sponsors with unique commercialization needs. For instance, Harvest Partners invested in ConnectiveRx (formerly PSKW), a provider of patient engagement and market access and adherence support for specialty and branded biopharma manufacturers.

Services investments also gravitated to R&D and manufacturing platforms, supporting biopharma's strong clinical and preclinical stage pipeline. One example was Blackstone's \$2.3 billion majority stake acquisition of Precision Medicine Group from Berkshire and TPG Growth. Precision is a biopharma service provider focused on oncology and rare disease clinical trial development and drug launch support for smaller sponsors. A majority stake in PCI Pharma Services, a biopharma supply chain solutions provider, was acquired by Kohlberg and Mubadala in partnership with Partners Group. And THL and Frazier backed Adare, a leading CDMO platform formerly backed by TPG. Huntsworth Health (acquired by CD&R for \$0.7 billion) and Fishawack (acquired by Bridgepoint) represent just two of the noteworthy pharma services deals completed in Europe in 2020.

Modernizing clinical trials

Clinical trial processes continue to be reinvented and Covid-19 further exposed weaknesses in traditional trial approaches, notably those that depend on in-person patient visits to key opinion leaders for enrollment and monitoring.

The pandemic forced sponsors to deploy virtualization tools and strategies to keep their clinical trials running. This transition shifted recruitment, participation, data capture, and monitoring away from physical sites toward telehealth visits, remote patient diagnostics, and electronic monitoring. Some elements of this line of innovation, such as telehealth trial consults, will no doubt continue after the pandemic abates. Others, such as fully virtual studies, may require further experimentation before a winning model emerges.

In addition, the continued modernization of trials continues to focus on efficiency improvements through deployment of next-generation clinical operations tools, such as e-clinical outcome assessment and e-consent, as well as use of artificial intelligence in protocol design, patient identification, and risk management.



Finally, in some cases, collecting real-world outcomes data to prove efficacy and safety profiles, and to support approval, reimbursement, and usage decisions by stakeholders, mitigates the challenges of trial size, through synthetic control arms; it could also replace the need for new trials. This data plays a growing role in the development process alongside clinical data. For instance, Carlyle Group acquired a majority stake in TriNetX based on the promise of the company's cloud-based platform for real-world clinical evidence that supports CROs and drug developers.

Europe looks to specialty pharma

Specialty pharma has long been a key target for pharma, with investors seeking commercial-scale, defensible assets. These typically compete in therapeutic areas that have less large pharma investment (such as neurology and antibiotics) and that have some differentiated intellectual property or capability that provides a competitive impediment (small-volume indications or nonstandard dosages). Assets drawing attention this year in Europe were predominantly category leaders, such as Neuraxpharm, acquired by Permira, and Covis Pharma, acquired by Apollo.

Strong adjacency interest for cell and gene therapy

Strong preclinical- and clinical-stage pipelines in cell and gene therapies have investors in Europe looking for ways to participate through suppliers, manufacturing firms, and support services. However, competition for assets with differentiated positions is fierce. Strong corporate interest in the space—as with Catalent's acquisition of cell therapy manufacturer MaSTherCell—has limited opportunities for private equity sponsors to buy assets with differentiated positions, with Warburg's coinvestment with ArchiMed in Polyplus being one of the few successful examples.

Asia-Pacific's growing appetite for direct-molecule-specific risk

For most developed markets in the Asia-Pacific region, biopharma activity resembled that of other regions: a focus on services and stable, mature targets such as Takeda's consumer healthcare division, acquired by Blackstone for \$2.3 billion. However, China and developing Asian markets have shown greater appetite for direct molecule investment.

Following government regulatory actions to encourage local biotech innovation, a number of emerging firms offer attractive prospects, especially to local investors. For instance, Hualan Biological Engineering, a Chinese biopharma developer that raised \$290 million from a group of investors led by Hillhouse Capital, focuses on bacterial vaccines for human use.

A bullish outlook for services and high-growth segments

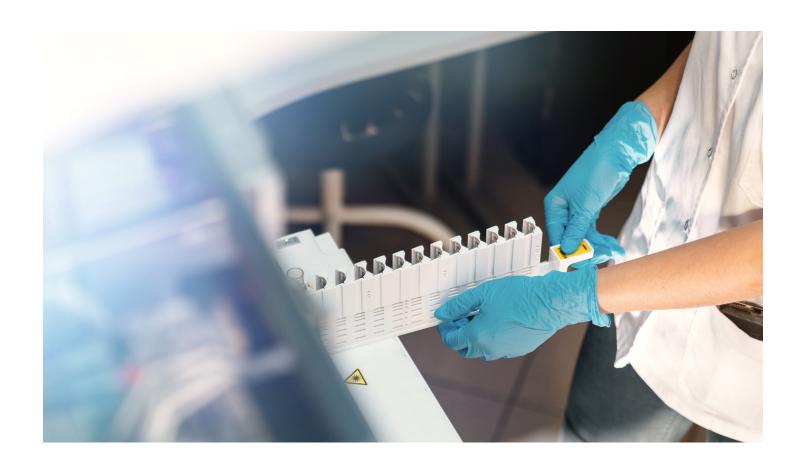
Even in the face of the pandemic, biopharma's outlook for investment opportunities remains quite bullish. Robust funding for therapeutics suggests a continuation of strong pipeline trends. The major source of uncertainty lies in governmental drug pricing and reimbursement action in the US, though it is unclear whether anything significant for the biopharma industry will materialize.



Services and healthcare IT will remain the most fruitful territory in the US and Europe. We expect especially strong interest in a few segments with high projected growth: cell and gene therapy support, specialty CROs supporting niche therapeutic areas for smaller biopharma sponsors, commercialization services, clinical trial reinvention tools and services, bioanalytical testing services, and real-world data and evidence providers.

Specialty pharma could spark additional interest in certain niches where biopharma has less focus. Infectious disease-focused firms have historically struggled to create a sustainable business model, but there is reason to hope that these areas could become more economically sound after Covid recedes, as the world prepares for future pandemics. Further, we expect to see opportunities with firms that are repurposing technology or capabilities that were advanced during Covid-19, such as mRNA therapeutics, diagnostics, and vaccines, and now could be applied to other indications.





Medtech: Four themes fueled deals despite the pandemic

Covid-19 caused patient volumes to plummet and squeezed supply chains.

At a Glance

- Medtech investors completed 62 deals in 2020, slightly up from 2019, with disclosed value about flat at \$4.2 billion, compared with \$4.3 billion in 2019. There were no deals with disclosed value over \$1 billion and only two with disclosed value over \$500 million.
- This steady performance is encouraging, as Covid-19 reduced patient volume and squeezed supply chains.
- The Asia-Pacific region accounted for 48% of the total deal count, but only 17% of disclosed value. North America had 73% of disclosed value, largely on the back of the two largest deals, NN and Advanced Instruments.
- Four investment themes stand out: life sciences equipment and consumables, consumer-facing technologies, growth in Chinese activity, and opportunities in carve-outs.

Investment in the medtech sector generally fluctuates year-to-year, so the steady performance in 2020 is encouraging. Many private equity sponsors have historically faced challenges in acquiring attractive medtech assets. On one end of the asset spectrum, private equity funds face stiff competition from corporates looking for tested, high-performing medtech targets to integrate with their broader businesses. On the other end, not all healthcare private equity investors have an appetite for more speculative, early-stage targets.

Layered on that underlying dynamic, medtech experienced major disruptions in 2020 from Covid-19. Specifically, the pandemic and subsequent lockdowns caused patient volumes to plummet, especially for elective procedures, and it squeezed standard supply chains for many of the sector's products and device components.

The number of deals during the year increased to 62 from 59 in 2019. Disclosed value dipped 3% to \$4.2 billion in 2020. This slight decline partly stems from a lack of deals valued at \$1 billion or more, whereas there were two in 2019.

Four investment themes emerged from our analysis of 2020 deal flow:

- life sciences opening avenues into high-growth segments such as diagnostics;
- new attention to consumer-facing technologies that could disrupt traditional models;
- strong growth in medtech deals in China; and
- opportunities for value in carve-outs.



Life sciences diagnostic equipment and consumables are on a roll

Firms producing technology that supports R&D with clinical laboratory tools and diagnostics can benefit from tailwinds in both diagnostics and advanced drug development. Unlike many medtechs, these firms don't make the typical surgical implants and consumables, but instead focus on high-tech devices and equipment, such as genomic sequencers for biopharma applications, used to test or develop other products or assess diseases.

As an example, Patricia Industries led the acquisition of Advanced Instruments for \$780 million. Advanced Instruments has developed a broad portfolio of osmolality testing products that are used by biopharma firms and emerging cell and gene therapy biotechs across the world.

Consumerism gains a foothold

Consumers in many major markets have shown an interest in discretionary spending on healthcare products, presenting new growth avenues for medtech firms. Direct-to-consumer (DTC) channels are intriguing because medtech firms can market a product directly, and hospitals and healthcare payers have less sway over pricing and sales tactics. DTC firms with business models suited to ride the wave of healthcare consumerism have thus garnered interest from private equity investors.

For instance, Eargo, a DTC hearing aid developer, recently raised a \$71 million financing round from investors Gilde Healthcare and Longitude Capital. Similarly, piggybacking on interest in veterinary medicine in the provider space, Fidelio acquired BioMedtrix and Veterinary Orthopedic Implants, two firms offering veterinary joint replacement implants.

Domestic deals in China heat up

Population growth and other macro trends have long spurred growth in China's healthcare markets. Now the government has begun to promote domestic development of the industry in order to reduce reliance on Western firms.

These macro and political factors spurred acquisitions of Chinese medtech companies, which jumped to 25 in 2020 from a low base of 6 in 2019. Many such deals appear to focus on earlier-stage technology or targets with lower price tags, and often consist of consortium investments. Two of the larger transactions were the Hillhouse Capital-led consortium investment in MicroPort CardioFlow Medtech for \$130 million and the \$92 million raise for Coyote Bioscience.

Although domestic medtech firms have gained ground in China, their strategy and viability for growth abroad, where they would face increased competition from larger firms, is not yet established.

Carve-outs to unlock value

Carve-outs have allowed acquiring firms to gain entry to attractive indications, or to unlock a category leadership position in a smaller subsegment. Private equity firms actively sought out these opportunities,



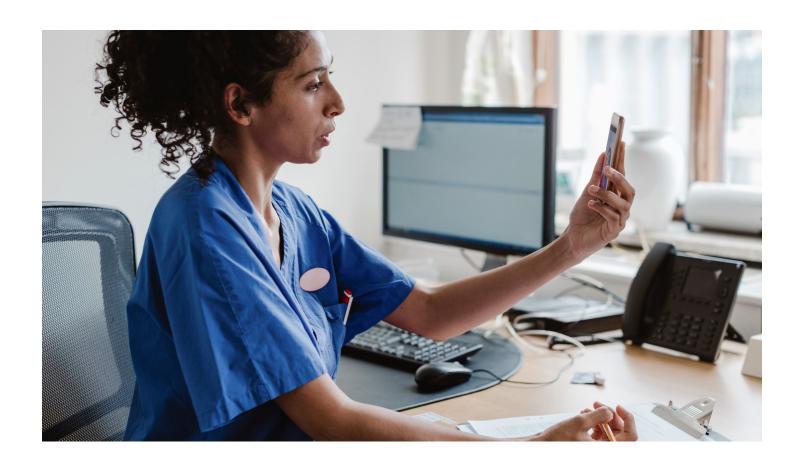
as evidenced by one of 2020's largest medtech buyouts, Montagu Private Equity's acquisition of RTI Surgical Holdings' OEM business. The deal involves compelling technology and expected robust market growth due to macro tailwinds.

One challenge for private equity funds continues to be the competition from corporate investors looking to bolster portfolios while realizing synergies. For instance, Smith & Nephew acquired the extremity orthopedics unit of Integra Life Sciences for \$240 million to broaden its product portfolio in the higher-growth extremities segment, and to take advantage of potential scale with their other orthopedics positions.

Back to a bright future

Despite the pandemic, many of the structural strengths of medical devices and life sciences tools have persisted, suggesting a return to growth in 2021. Moreover, deals deferred during the pandemic, as both buyer and seller expectations changed, should again generate interest over the coming year.

Further out, we anticipate heightened interest among private equity funds and corporates in a few highly attractive subsegments, intensifying the competition for deals. Firms with consumer-focused solutions and devices, or with technology that facilitates at-home care, such as remote diagnostics, will likely remain attractive given their ability to ride the tailwinds of shifts to home care. We also expect sustained momentum of past carve-outs and life science deals as acquiring firms look to establish strong category leadership footholds across medtech. The ability to build sector depth and operational capabilities in some of these more competitive segments will remain critical to winning marquee assets.



Healthcare IT: Technologies help improve patient experiences at lower costs

Big data analytics to modernize clinical trials also drew investor interest.

At a Glance

- Healthcare IT deal counts and value dropped modestly due to the effects of Covid-19 and lockdowns. But enthusiasm for technology's support in shaping healthcare delivery, innovating R&D, managing healthcare payments, and reducing costs keeps growing.
- Private equity investors sought companies that use technology to help patients find the right site of care, improve outcomes, and achieve a better experience at lower cost. Telehealth will enable companies to meet patients where they are, with opportunity for the space to evolve and solutions to converge.
- The use of big data analytics to raise the efficiency of biopharma clinical trials also garnered interest from healthcare investors. Clinical trials will likely become more data rich and collaborative, unlocking unprecedented innovation in drug development.
- We anticipate that healthcare IT deal activity will return to or exceed prepandemic levels, given advances in technology and data analytics, and the growing conviction among healthcare leaders about the power of technology to improve clinical workflow and operational efficiency, reduce excess cost, and improve health outcomes.

Healthcare IT spans all sectors, so it's no surprise that Covid-19 affected private equity investment in 2020. Deal count dipped to 48 from 51 deals in 2019. Disclosed value declined to \$15.1 billion from \$17.5 billion the year earlier. Veritas's \$5 billion acquisition of DXC Technology's State and Local Health and Human Services businesses represented almost one-third of total disclosed value in the sector.

Still, healthcare IT accounts for 23% of total disclosed value across healthcare buyouts. Meanwhile, several notable deals did not disclose value, including the Warburg Pincus partnership with existing investor Great Hill Partners to invest in Quantum Health.

Four major themes dominated healthcare IT investment in 2020, with investors showing interest in technology that:

- facilitates healthcare provider care across sites as employers, healthcare payers, and patients push care outside of hospitals and long-term care facilities;
- helps employers improve member experience and outcomes while reducing cost;
- uses analytics to shape better patient experiences; and
- deploys big data analytics to modernize clinical trials.

Facilitating provider care at alternate sites

The pandemic accelerated the trend away from inpatient post-acute care settings, such as skilled nursing facilities, long-term acute-care facilities, and hospitals. This occurred because Covid-19 increased the risk of contracting a fatal infection in these settings, and patients already preferred lower-acuity settings, such as home and ambulatory care, for quality-of-life benefits, while healthcare payers push to these sites given their lower cost of care. This trend created opportunities for healthcare IT solutions that support care within post-acute and home care settings and that help to manage the transition between them.

WellSky, a post-acute electronic medical record platform that received a \$1.5 billion investment from TPG and new capital partner Leonard Green, illustrates this trend. Investors believe WellSky can grow by serving healthcare providers in every setting of care, managing the transition across settings, and bending the cost curve, by leveraging its technology and analytics. WellSky aims to get patients to the right setting at the right time, through patient guidance offerings and the potential for a broad post-acutewide electronic medical records solution.

Helping employers improve outcomes at lower cost

Employers have been seeking solutions that offer their workforce improved health outcomes and experiences while reducing their overall cost burden. Over the past year, more healthcare private equity investors targeted companies that can demonstrate a clear employer ROI, a trend we expect to continue. Quantum Health was one such deal (see the Payers section of this report), and Grand Rounds, with investment led by The Carlyle Group, was another tech-enabled firm focused on care coordination. Similarly, Teladoc's acquisition of Livongo reinforced the strong corporate interest in using care management platforms to reduce employer healthcare costs.

The pandemic has forced more healthcare providers and patients to try telehealth, and they generally like its convenience, clinical and operational efficiency, and ability to facilitate high quality care. Three of the four "see any doc" telehealth platforms—Dr. on Demand (\$75 million from General Atlantic), MDLive (\$50 million from Sixth Street), and AmWell (\$100 million from Google Cloud)—received investment. We expect the enthusiasm for telehealth investing to continue after the pandemic, given patients' even greater preference for "see my doc" platforms.

Questions remain about the future of care delivery, and whether and how solutions will converge. Technology allows companies to meet the patient where he or she is. Looking ahead, where will care take place? How much care will be delivered digitally? What is the role of digital in triage? How can technology enable remote monitoring in the home and push more cutting-edge models such as hospital at home? Investors will look for answers as they search for the next generation of care delivery assets.

Using analytics to shape better patient experiences

Healthcare payers and providers have embraced data systems and advanced analytics in an effort to improve patient experiences at reduced cost. They employ these technologies to target revenue capture (through mechanisms such as improved hospital coding accuracy), value-based performance (through better clinical documentation), and payer operations (through analytically informed insights on health plan performance and patient outcomes).

Healthcare performance analytics firm MedeAnalytics, for instance, was acquired by JLL Partners to better equip payers with data insights on enterprise analytics, payer operations, and value-based care. Also, Frazier Management acquired Accuity Delivery Systems to drive improved clinical coding and revenue integrity systems for providers.

Another application for big data, population health management, allows healthcare payers to introduce plans to otherwise expensive patient populations and to lower the payers' administrative and medical costs. For instance, Accountable Healthcare America, a technology-enabled population health management platform for Medicare Advantage-focused networks, entered into a merger agreement with GreenVision Acquisition, a special purpose acquisition company, for \$177 million.

Deploying big data analytics to modernize clinical trials

Covid-19 forced biopharma firms to employ decentralized approaches in clinical trial execution so as to decrease dependence on in-person visits for collecting data. These solutions also have the potential to speed up trials and get products to market faster. In addition, private equity investors are exploring the use of real-world evidence, which allows firms to expand into new indications through Phase 4 trials and to negotiate more advantageous formulary tiering with healthcare payers.

For example, Clinical Ink, acquired by GI Partners, has developed novel clinical trial workflow solutions that capture and integrate electronic study data from sites, clinicians, and patients in real time. In addition, TriNetX, with a majority stake acquisition by Carlyle, operates a platform of real-world data, spanning hospitals, pharmaceutical companies, and contract research organizations, which is used across the drug development cycle.

We anticipate growth in virtual clinical trials. Certara, owned by EQT and Arsenal Capital Partners, went public in 2020, and is one example of a large data asset that enabled rapid assessment of Covid-19 clinical outcomes. R&D looks primed to be more data rich and collaborative, with a question around the right blend of online and offline models in order to achieve successes on the order of the recent pandemic vaccine timeline.

Technology branches out

Healthcare IT deal activity will likely persist and accelerate after the pandemic, given the enduring need for technology-enabled solutions to critical healthcare issues. Coordinating the patient's journey across



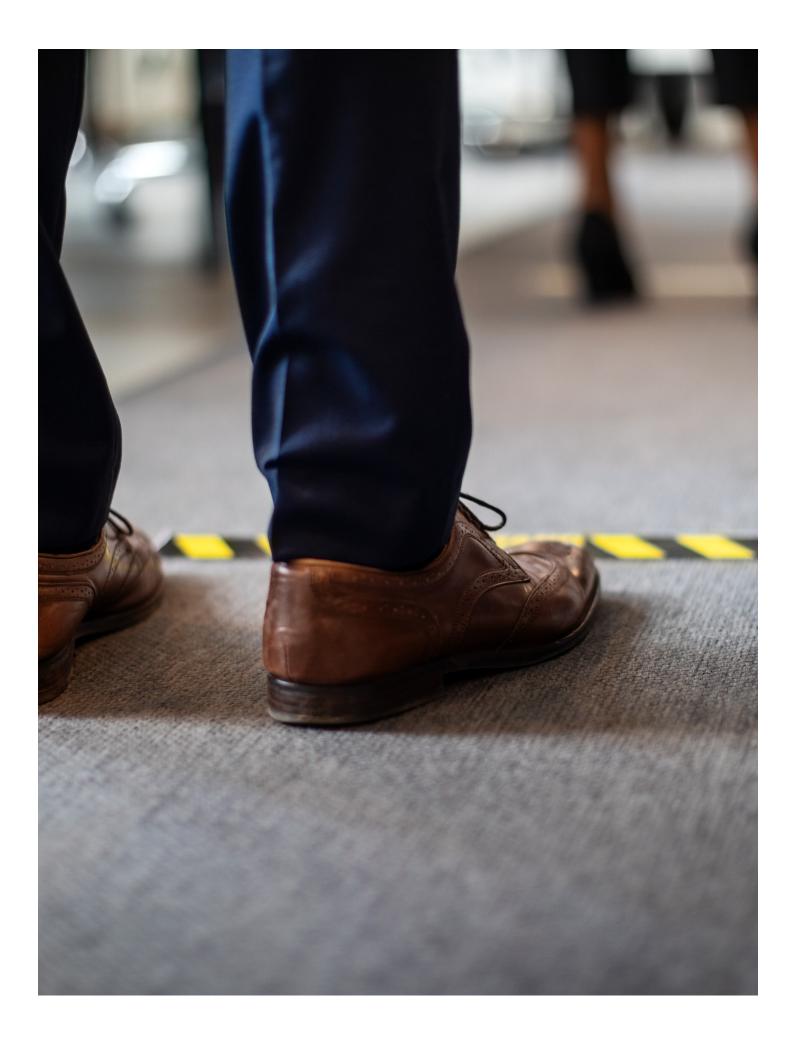
settings, executing increasingly virtual clinical trials, and developing revenue platforms for healthcare providers facing lower patient volumes are complicated issues that all benefit from advanced technologies, and that will fuel deals.

For instance, several of the crossover growth private equity funds, including Coatue, Tiger, Dragoneer, and ICONIQ, are underwriting potential buyout targets—Oscar, Hinge Health, Qgenda, and so on.

We also expect to see platform plays in revenue cycle management and payments as technology firms look to streamline transactions and payment flow between healthcare stakeholders. One example from 2020 was the acquisition of eSolutions by Waystar for \$1.3 billion. With this acquisition, Waystar (backed by EQT, CPPIB, and Bain Capital) takes a better position to unite government and commercial healthcare payers on a single platform with eSolutions' Medicare-specific revenue cycle technology.

An open question remains on the future of healthcare payments. There is increasing pressure to manage and digitize the \$500 billion of paper-based payments. Further, it is not clear whether payments in healthcare will advance as far as other industries, because of healthcare's complexity and multitude of line items. Any simple, elegant solution will have to overcome this complexity.

Finally, investors should keep an eye on nascent behavioral health technologies. Round 13 Growth Fund invested \$42 million in LifeSpeak, providing an early signal of activity in the segment. Covid-19 has amplified mental health problems, bringing to the forefront for employers, payers, and providers alike the imperative to deliver effective mental health treatment to patients when and where they need it. Tech-enabled and telehealth-augmented behavioral health models abound, and the space is wide open and ripe for disruption.



5. M&A: A pandemic-induced slowdown in every sector

At a Glance

- After a banner 2019, overall healthcare disclosed deal values declined 37% to \$338.6 billion. Deal volume also dropped by a more modest 9% to 2,845 deals.
- North America was the most active region, with 1,175 deals accounting for 80% of overall value. Biopharma was the most active sector, logging 998 deals for 67% of total value.
- Covid-19 caused many deals to be put on hold, as elective surgeries were restricted and other consequences rippled throughout healthcare.
- Looking ahead, we anticipate that M&A activity should rebound based on continued macro and healthcare sector-specific growth trends.

After peaking in 2019, healthcare corporate M&A disclosed deal value dropped 37% to \$338.6 billion. Deal volume also declined, albeit by a more modest 9%, to 2,845 deals (see Figure 1). While deals greater than \$5 billion accounted for 42% of total value, the drop in the number of megamergers (over \$20 billion) meant that value was less concentrated than in prior years (see Figure 2). Meanwhile, deals valued under \$5 billion accounted for the remaining 58% of value, the greatest proportion since 2016. Deals of this size have traditionally been the most competitive with private equity sponsors, indicating that corporate entities mounted greater competition with sponsors than in 2019.

Biopharma: Poised for sustained levels of activity as investors reward top-line growth

Biopharma deal volume declined 20% to 998 deals, and despite a value decline of 43% to \$226.4 billion, biopharma still accounted for 67% of total healthcare M&A value. 2020's two largest mergers, Astra-Zeneca-Alexion Pharmaceuticals (\$40.1 billion) and Gilead-Immunomedics (\$20.9 billion), were significantly smaller than the 2019 megamergers of BMS-Celgene (\$74 billion) and Abbvie-Allergan (\$63 billion). However, the persistence of very large mergers, albeit somewhat smaller, suggests that the sector's fundamentals remain strong.

Between 2016 and 2020, 50% of total shareholder return (TSR) in biopharma was driven by revenue growth, 2.5 times the effect of EBITDA (see Figure 3). The TSR for acquisitive and organic growth were quite similar. This suggests that the market rewards high gross margin biopharma firms most for revenue growth—a trend that, if it continues, will likely spur more transaction volume in the future.

Figure 1: Healthcare corporate M&A disclosed value declined sharply

Global healthcare M&A deal value, \$ billions Global healthcare M&A deal count 4,000 3,000 2,000 1,000 \$84B

Notes: Excludes spin-offs, add-ons, loan-to-own transactions, and acquisitions of bankrupt assets; based on announcement date; includes announced deals that are completed or pending, with data subject to change; deal value does not account for deals with undisclosed values

Sources: Dealogic; AVCJ; Bain analysis

Figure 2: A dearth of megamergers accounts for the decline in disclosed deal value

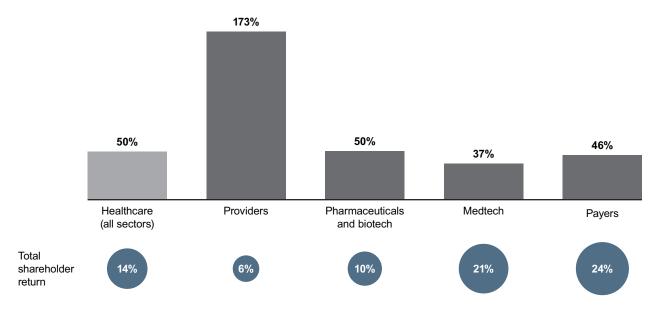
Greater than \$20B (megamergers) \$5B-\$20B \$202B \$500M-\$5B Less than \$500M

Corporate healthcare M&A deal value

Notes: Excludes spin-offs, add-ons, loan-to-own transactions, and acquisitions of bankrupt assets; based on announcement date; includes announced deals that are completed or pending, with data subject to change; deal value does not account for deals with undisclosed values
Sources: Dealogic; AVCJ; Bain analysis

Figure 3: Revenue growth accounts for half of total shareholder return in public healthcare companies

Total shareholder return driven by revenue growth, 2016–20



Note: Indicative two-year TSR (December 2020-December 2022) potential based on analyst consensus at stable multiples Sources: CapIQ; Bain analysis

Pharma companies continued to use M&A to expand their R&D pipelines in therapeutic areas where they have expertise. For example, the \$2.4 billion Biogen-Sangamo merger in gene regulation therapy will give Biogen access to promising treatments for neurological disorders. Overall, we expect corporates to continue being the biggest acquirers in biopharma, presenting strong competition to private equity sponsors.

Medtech: Restrictions on elective surgeries put a pause on many deals, though some segments are poised for strong activity

Covid-related restrictions on elective surgeries dampened medtech deal volume in 2020, which decreased 16% to 564, while deal value declined 60% to \$39.2 billion. Moreover, one deal, Siemens's acquisition of Varian, accounted for 42% of the total value in the sector.

The extent of limitations on access to hospitals for elective surgeries and commercial activities is uncertain in the near term, but we anticipate a revival of activity in two areas. First, diagnostic and testing companies received major cash infusions during the pandemic and could use it to reinvest in core areas or to seek adjacencies in other businesses. Second, companies with limited exposure to elective procedures, or those with a strong balance sheet, could opportunistically pick up distressed assets.



Once elective surgeries rebound and the uncertainty around commercial access to hospitals is resolved, the longer-term strategy of pursuing category leadership should return as a major motivator for more transactions.

Healthcare payers: An uptick in value, with investment likely to grow in areas accelerated by Covid-19

Breaking from the downward trend starting in 2017, payer deal volume and value both increased in 2020, with deal volume rising by 32% to 58 and deal value rising by 86% to \$41.7 billion. While investors expected that corporates would still be digesting large acquisitions from previous years, they were actually more willing than anticipated to invest this year.

We expect activity to pick up in areas accelerated by Covid-19, such as enabling software for telehealth, and areas that have become increasingly relevant to providers for the future, such as payments technology. The \$14.8 billion Teladoc Livongo merger was a clear example, in a deal that looks to better integrate telehealth into the care continuum for chronically ill patients.

PE sponsors are similarly focused on these areas, looking for opportunities to build platforms in payer technology, in order to create targets for future acquisitions.

Healthcare providers: Strong and getting stronger, with consolidation of physician practice management and alternative care sites

The pandemic considerably slowed the stream of provider deals in the first half of 2020 but picked up later in the year, leaving volume down by 18% to 547 deals but transaction value up 19% to \$21.0 billion.

Many deals that did manage to close were characterized by consolidation of physician practice management and alternative care sites in order to reduce costs and improve patient outcomes through standardized processes. One such example was the North American Partners in Anesthesiology's purchase of American Anesthesiology from MEDNAX.

In the coming year, significant opportunities exist for larger, well-run providers to acquire distressed assets. Additionally, telemedicine and virtual care capabilities might attract wider interest given the increased demand for this type of care following the pandemic.

Outlook: Divestitures should lag acquisitions

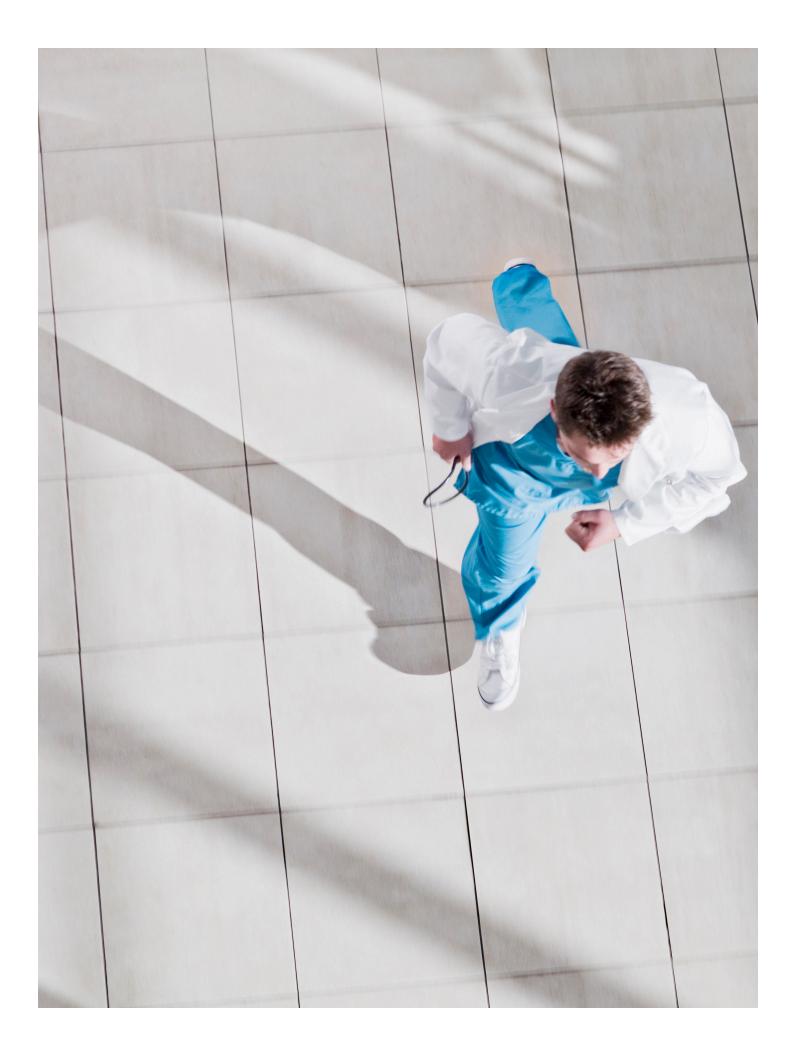
After a challenging 2020, the coming year may see distressed firms divesting assets to free up cash or to clean out portfolios. However, divestitures are expected to rebound at a slower pace than acquisitions, as companies focus on core business operations before turning to divestitures.

Past recessions have shown that firms willing to invest with a clear deal thesis in times of downturn can generate strong returns and gain market share gain. For instance, Medtronic has delivered an 11% annual TSR since the 2009 acquisitions of CoreValve and Ventor Technologies. We expect that category leadership will continue to motivate many acquisitions.



However, replicating past successes will entail developing a clear list of actions to achieve the most transaction value. Aggressive yet realistic synergies, one-time costs, the prospect of integrations in a virtual environment, and identifying people with the right talent will all be essential topics to address. Through strong planning and coordination, acquirers deliver on their deal and integration theses.

For more detail on the year's M&A activity, read Bain's Global M&A report.



6. Exit activity: Robust capital markets spur a surge of IPOs

At a Glance

- Global healthcare exits increased to 146 in 2020, up from 126 in 2019. Disclosed exit value also rose, increasing to \$73.1 billion from \$40.8 billion in 2019, with several large exits in the North American payer and North American and European provider sectors.
- The initial public offering (IPO) share of all exits rose to 25%, partially driven by the growing popularity of special purpose acquisition companies (SPACs).
- The median holding period increased slightly to 4.5 years, and for large exits lengthened to 4.4 years from 3.6 in 2019.
- Private equity funds continued to make quick flips in some parts of their portfolios, with the first-quartile median holding period holding steady at 3.1 years.

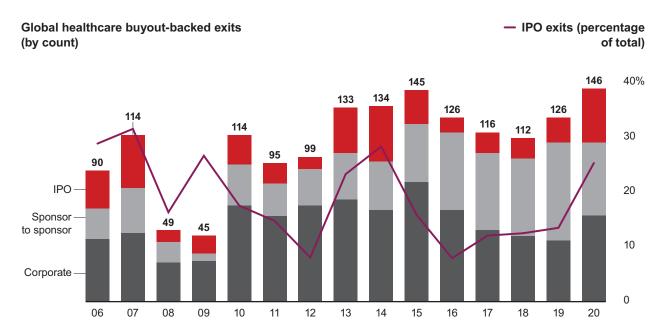
Globally, the number of healthcare exits increased to 146 in 2020, up from 126 in 2019 (see Figure 1). Disclosed exit value rose substantially to \$73.1 billion, up from \$40.8 billion in 2019, driven by several large deals in the North American healthcare payer and provider sectors. Breaking with the 2019 pattern, sponsor-to-strategic exits were the most common channel, representing 40% of total exits.

Amid soaring public market multiples, exits through IPOs or SPAC mergers became more popular in 2020. The number of IPOs and SPAC mergers surged to 25% of all exits, more than double their average of 12% over the past five years. The cash raised through IPOs also rose substantially, to \$24.4 billion from \$4.1 billion in 2019, largely due to a few megadeals.

Those large IPOs by financial sponsors included H&F, Carlyle, GIC, and ADIA-backed PPD (for \$1.9 billion), GTCR-backed Maravai Life Sciences (\$1.9 billion), Warburg Pincus and GTCR-backed Sotera Health (\$1.2 billion), and Centerbridge-backed GoHealth (\$0.9 billion).

Selling to SPACs became a more relevant exit strategy in 2020, with 248 SPACs formed, 56 of which focus on healthcare (see Figure 2). Periods of high market volatility and uncertain macroeconomic conditions make the SPAC a relatively more attractive exit option, as it eliminates the pricing range uncertainty of a traditional IPO, albeit at a higher cost. Several large exits during the year ran through SPACs, including H&F-backed Multiplan moving to Churchill Capital III for \$9.7 billion, InTandem Capital Partners-backed Cano Health to Jaws Acquisition for \$3.0 billion, and Bain Capital and Pfizer-backed Cerevel to Arya Sciences Acquisition for \$780 million.

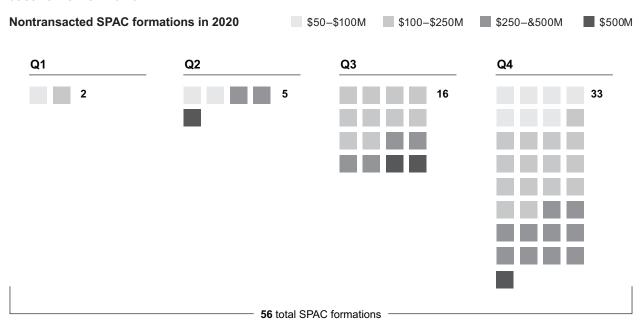
Figure 1: The number of exits continued a multiyear rebound as IPOs ticked up



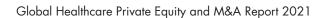
Notes: Excludes spin-offs, add-ons, loan-to-own transactions, and acquisitions of bankrupt assets; based on announcement date; includes announced deals that are completed or pending, with data subject to change; deal value does not account for deals with undisclosed values

Sources: Dealogic; AVCJ; Bain analysis

Figure 2: Special purpose acquisition companies (SPACs) burst on the healthcare scene in the second half of 2020



Note: Includes only nontransacted SPACs Source: SPAC Insider



Moreover, of the 56 healthcare SPACs created in 2020, 49 of them were formed in the second half of the year, with most landing between \$100 million and \$250 million in raised capital. With this sort of acceleration, we expect to see robust SPAC activity in 2021 as funded vehicles search for targets.

Quick flips maintain their appeal

Holding periods held to the standard 3 to 5 years, with a median investment of 4.5 years, similar to levels in 2019 (see Figure 3).

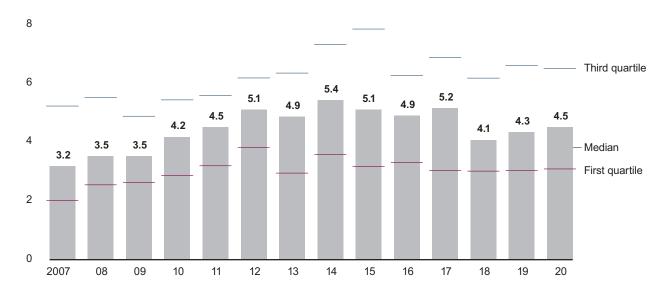
Quick flips, or assets held for less than 3 years, remained popular. The first quartile of holding periods stayed steady at a median 3.1 years, continuing a general downward trajectory since 2014's median of 3.6 years. This trend suggests that private equity sponsors continue to put dry powder to use in the healthcare sector by rapidly turning high-value assets on relatively short timelines. Among the notable examples were naviHealth, which sold to Optum after just 1.9 years of ownership by CD&R.

With many quick flips, sellers also continue to favor retaining a minority stake in the asset. This allows them to keep some upside potential in growth businesses while also realizing gains for their current funds.

Examples of such partial exits included Blackstone majority stake acquisition of Precision Medicine from Berkshire and TPG Growth in November for \$2.3 billion. The business, which provides a range of

Figure 3: Holding periods for healthcare assets held steady

Median holding period in years for healthcare private equity exits



Note: Excludes bankruptcies, recapitalizations, restructuring, and write-offs; excludes exits with holding period of 0 years Sources: Preqin; Dealogic



clinical trial services and commercialization support, is expected to benefit from overall macro growth in high-complexity life sciences, making it an attractive one to retain a stake in. Similarly, Welsh, Carson, Anderson & Stowe sold 49% of the largest Program of All-Inclusive Care for the Elderly (PACE) provider, InnovAge, to Apax Partners, while retaining 49% itself. This business is anticipated to grow due to population trends and increased demand for senior care. And TPG partially exited some of its position with WellSky by adding Leonard Green & Partners as a new capital partner only three years after the initial acquisition.

North America remains the most active region

As in 2019, exit activity concentrated mostly in North America, with 58% of total deal volume. IPO exit volume there more than doubled, to compose about one-third of total exits in the region. Although sponsor exits also made up roughly one-third of North American exits, they accounted for over half of 2019 exits (see Figure 4).

In Europe, which saw 29% of total exit volume, IPO exits held flat, and generally made up a much lower portion of exits than in other regions. Private equity sponsor exits, meanwhile, declined by 10 percentage points in 2020. The pandemic disrupted many deal processes, especially among health-care providers facing market uncertainties, with many assets having processes halted or never brought to market at all.

Figure 4: North America continued to lead in exit volume as IPOs rose

North America

Number of exits in 2020

Sources: Dealogic; Preqin; Bain analysis

Europe

Asia-Pacific Rest of world

The Asia-Pacific region was responsible for just 11% of exit volume. Within the region, the IPO market shot up to 81% of exit value in 2020 from 15% in 2019, with strong demand for assets from capital markets due to large stockpiles of dry powder and investors reaching for yield. Sponsor deal value in the Asia-Pacific region fell under 5% of all exit value in 2020 from 51% in 2019.

We continue to see different exit trends across geographies, with North America and Asia-Pacific seeing a substantial spike in IPO exits while Europe remained more corporate-heavy.

Healthcare providers see a material increase in corporate exits

The provider sector continued to be the most active, with 59 exits in 2020, up from 55 in 2019 (see Figure 5). Disclosed value also rose to \$28.2 billion from \$14.4 billion in 2019. The sector's strong performance reflected the overall private equity investment market.

Corporate exits played a larger role in 2020, composing 46% of all provider exit activity—through 27 deals—vs. 31% in 2019. A few large sponsor-to-strategic exits occurred as corporate entities sought to increase their scale, expand into adjacent revenue sources, or build in-house IT capabilities through add-on acquisitions.

In terms of disclosed deal value, IPOs took an outsized share of provider value: 36% or \$10.0 billion, despite accounting for only 7 out of the 27 disclosed deals in the sector. A single SPAC deal for Cano Health, valued at \$3 billion, accounted for a big share of IPO value among healthcare providers.

Figure 5: The provider and biopharma sectors accounted for most exit deals

100% IPO Sponsor-to-sponsor Corporate 59 44 27 16 Total=146 Total=146

Number of exits in 2020

Sources: Dealogic; AVCJ; Bain analysis

Provider

Biopharma

Medtech

Payer

Biopharma: A major boost from IPOs

Exits in biopharma got a big boost from IPOs, which accounted for 20 of the 44 exits and 46% of disclosed value during the year. Indeed, 54% of all IPOs were biopharma deals, consisting mainly of companies engaged in clinical-stage drug development, such as TPG's Vaxcyte (formerly Sutrovax).

Sponsor-to-corporate deals made up 18% of all exits in the sector during 2020, but were responsible for 28% of the exit value. Sponsor-to-sponsor exits made up 36% of all exits in the sector, with most of the value coming in services deals such as contract manufacturing organizations and contract research organizations. Berkshire and TPG Growth's \$2.3 billion recapitalization of Precision Medicine with Blackstone, Thomas H. Lee, and Frazier's stake sale of PCI Pharma services to Kohlberg and Mubadala, and Nordic Capital and Astorg's acquisition of Cytel, a provider of clinical trial design technology, exemplify the willingness of experienced sponsors to offer premium prices for attractive targets in highgrowth segments. These acquisitions signal that private equity funds should be prepared to quickly complete diligence and act on assets that will likely be highly competitive.

Medtech: In search of category leadership

The medtech sector saw the smallest share of sponsor-to-sponsor exits, with 56% of volume being sponsor-to-corporate and 30% coming in the form of IPOs.

Medtech corporates continued to be an important exit route for financial sponsors as they make point acquisitions in pursuit of greater category leadership, such as Steris acquiring Key Surgical, which specializes in sterile processing department products, from Water Street Healthcare Partners. Align Technology's acquisition of dental CAD/CAM software developer exocad from Carlyle is another example, as Align aims to broaden and strengthen its digital dentistry platform position.

Healthcare payers: Scale assets and payer technology

Despite payer activity nearly doubling to 16 exits in 2020, it was the least active sector as in previous years. However, the sector still accounted for a significant source of disclosed exit value, largely because of one major deal, Multiplan, which represented \$9.7 billion in disclosed value. Multiplan uses payment solutions and healthcare networks to lower costs for payers.

Transactions of healthcare payer technology firms—including the IPO of Centerbridge-backed GoHealth—accounted for three exits of more than \$500 million each.

Healthcare deals typically outperform the rest of the market

Based on gross pooled multiple on invested capital (MOIC) for deals through 2018, healthcare deals have generally outperformed those in other industries. Healthcare buyout deals with initial investment entered between 2010 and 2018 achieved an average MOIC of 2.5, compared with 2.0 for other industries (see Figure 6). Based on this, we expect healthcare deals to continue to draw investor interest and increased allocations from limited partners.

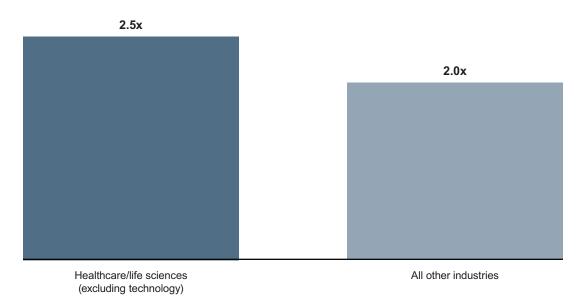
Outlook: Strong investor appetite offset by political uncertainties

We expect the appetite for healthcare deals to remain strong, both among sponsors and public markets, opening up additional exit opportunities in 2021. There is even a possibility of a short-term spike in exit activity, assuming the world has moved past the worst effects of Covid-19, as assets sidelined by pandemic-related disruptions reestablish their baseline performance and move to exit. How quickly conditions return to baseline, and how much of a post-Covid track record investors will expect to see, are open questions.

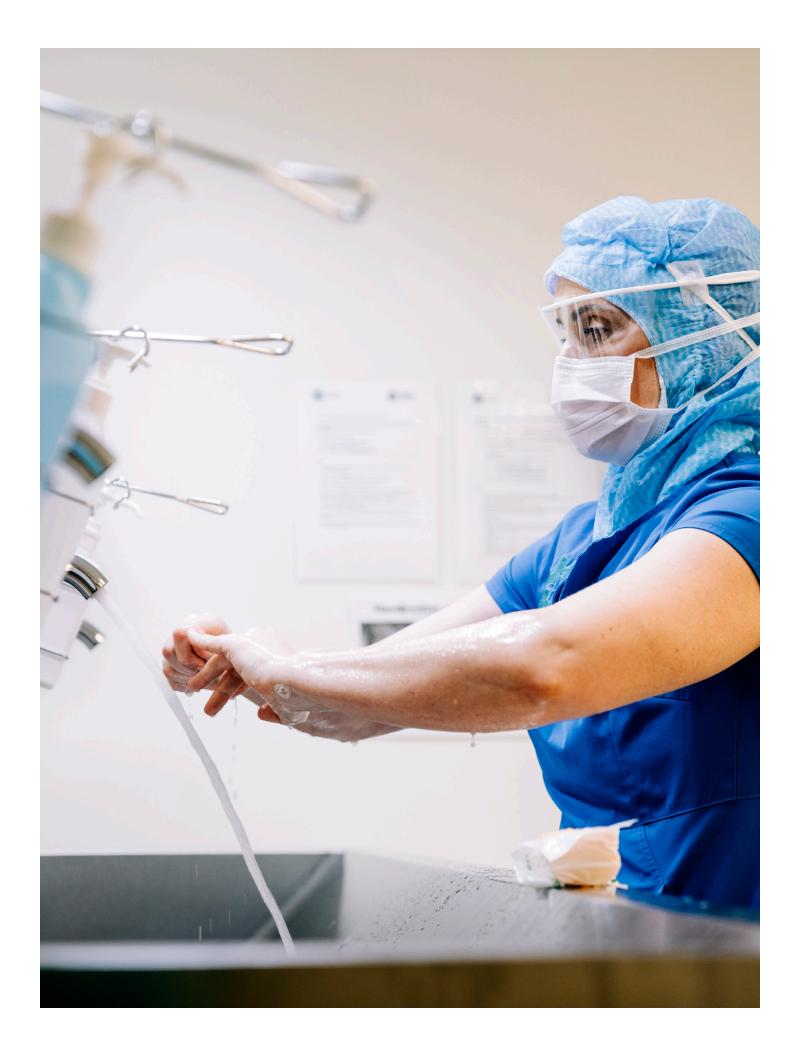
To be sure, potential headwinds also could come into play. In the US, trepidation around the November election outcomes may also have acted as a drag on exits. Hesitation may continue well into 2021, given that control of Congress has shifted and brought a greater potential for change. The new Democratic majority is more likely to consider expanding government's role in healthcare, as well as new legislation such as possible implementation of a "No Surprises" Act. Such legislation could create further uncertainty, especially about the long-term prospects for providers and biopharma firms.

Figure 6: The healthcare industry outperformed the average return of other industries

Gross pooled multiple on invested capital (2010-18)



Sources: CEPRES; Bain analysis





7. 2021 and beyond: What are the implications of "healthcare as national defense"?

Most of the policy and health responses to Covid-19 have focused on attempts to contain the pandemic and return to some semblance of a normal economy—albeit a different normal than a year ago. But the pandemic also exposed cracks in the healthcare system, such as shortages of critical medical supplies and personal protective equipment, limited coordination of early diagnostics, mixed readiness for modern healthcare delivery models such as telehealth, and historically offshored healthcare supply chains. At the same time, the pandemic underscored that healthcare is a critical piece of national infrastructure, not just another business sector.

Over the course of 2020, we saw government investment in the healthcare industry unlike any other year in modern times. The degree of public funding for healthcare, the embrace and reimbursement of innovative emerging care models, moves to encourage R&D collaboration, which accelerated vaccine development to an unprecedented pace, and the push to shore up domestic supply chains for critical medical equipment all demonstrate ways that healthcare can radically improve.

The notion of healthcare as national defense began to take hold in 2020, but what are the implications of this mindset? During Operation Warp Speed, the US government appropriated and deployed nearly \$18 billion of investments to fight Covid-19 through public-to-private partnerships across the healthcare value chain. What other major healthcare problems will governments target in the coming year?

- Will we finally see major infrastructure investments in healthcare IT to fix longstanding interoperability and data flow limitations? Many other industries are modernizing, while the healthcare industry spends comparatively less on IT infrastructure. In the US, only 4.3% of healthcare provider spending goes to improve IT systems, according to Gartner. That is just over half the average allocation in banking and one-quarter less than in education. Limitations of today's often siloed healthcare IT systems, such as the difficulties of site-to-site patient tracking, have frustrated many healthcare participants and now have the potential to delay vaccination efforts, providing an argument for potential government interventions.
- Will we begin to see leadership in innovative healthcare coverage from public payers? There
 have long been disparities between coverage and reimbursement rates for public and commercial
 insurers, with associated distorted cross-subsidies. However, during the pandemic, the US Centers
 for Medicare & Medicaid Services was quick to make changes to provide reimbursement for
 innovative models like telemedicine and hospital at home, in response to the sudden problems
 with traditional care delivery.

Coming out of the crisis, will there be a more widespread government embrace of concepts that emerged over the past year? The question has been asked before, but perhaps the pandemic can



catalyze a transition to more fee-for-value type models and away from the fee-for-service paradigm that has led to a number of structural challenges.

While it remains unclear to what degree governments will expand their role in healthcare, the industry is being viewed in a different light as we work to overcome the Covid crisis. Although other governments around the world operate with different healthcare models than the US, many are wrestling with similar questions.

• How will the future of pharma R&D evolve to harness the collective power of the greatest industry and academic minds to deliver innovative treatments? How did we develop and deploy a vaccine in record time? It was aided by new ways of working, new technologies, and increased government funding. Meanwhile, the global pandemic catalyzed an unprecedented level of collaboration as researchers quickly mobilized to share their data across the globe. New tools, technologies, and processes were deployed to speed up drug development by enabling collaboration across leading scientists around the globe and facilitating virtual clinical trials. Given the successes observed during vaccine development, perhaps we will see greater use of collaboration for therapeutic developments in the future.

The structural, macro, and market factors discussed throughout this report will no doubt continue to lift healthcare private equity. Opportunities to extend development of platforms will continue to open up, especially as subscale assets struggle with prolonged effects of the pandemic.

The healthcare private equity market may get even more active in 2021 as the backlog of disrupted deals from 2020 returns to baseline level. This mass of stalled deals will take some time to work its way through the system, but the strongest assets could quickly reach markets early in the year.

Plenty of investment themes are starting to emerge or to achieve their full potential:

Healthcare providers

- Provider buy-and-builds in new therapeutic areas and contexts, such as next generation seniorcare based models
- Next generation home-based healthcare models
- Risk-bearing provider models and assets with exposure to Medicare Advantage (MA) patients and plans
- Direct contracting plays and expansion of these models to commercial and Medicaid populations
- A sharper focus on key episodes and conditions that require shifts to new models of care, such as behavioral health and post-acute care
- Expanding across borders within European and Asia-Pacific provider platforms



Healthcare payers

- Expanded supplemental benefits for MA patients
- Next-generation employer navigation and third-party administrator solutions

Biopharma

- Services for the cell and gene therapy value chain
- Pharma services focused on commercialization.
- Cold chain and specialty pharma logistics
- Next-generation clinical trials

Medtech

- Technology that facilitates home-care models such as remote diagnostics
- Life science tools and diagnostics

Healthcare IT

- IT for alternative sites of care and nonclinical providers
- Fintech strategies across areas such as revenue cycle management and payments
- Consumer health technology, especially in the Asia-Pacific region

What do investors need to do to succeed in current conditions?

Given rising valuations and heated competition, investors will need to evolve their deal theses in order to thrive. The winners in healthcare private equity will be those that can identify the future implications of Covid-19, riding the momentum of healthcare as a national defense. They will spot analogies from other industries and regions that can be incorporated into their own assets—by, for instance, comparing healthcare IT to technologies in other industries. They will push the thinking on how to implement next-generation solutions to traditional health care models, asking, say, how lessons from MA plans and innovative primary and post-acute care models could be applied elsewhere. They will also craft creative partnerships to overcome historical hurdles, because collaboration may be an essential lever to create value in the future.

In short, investors that can create value by employing unique solutions stand to become the champions that we write about in the years ahead.





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