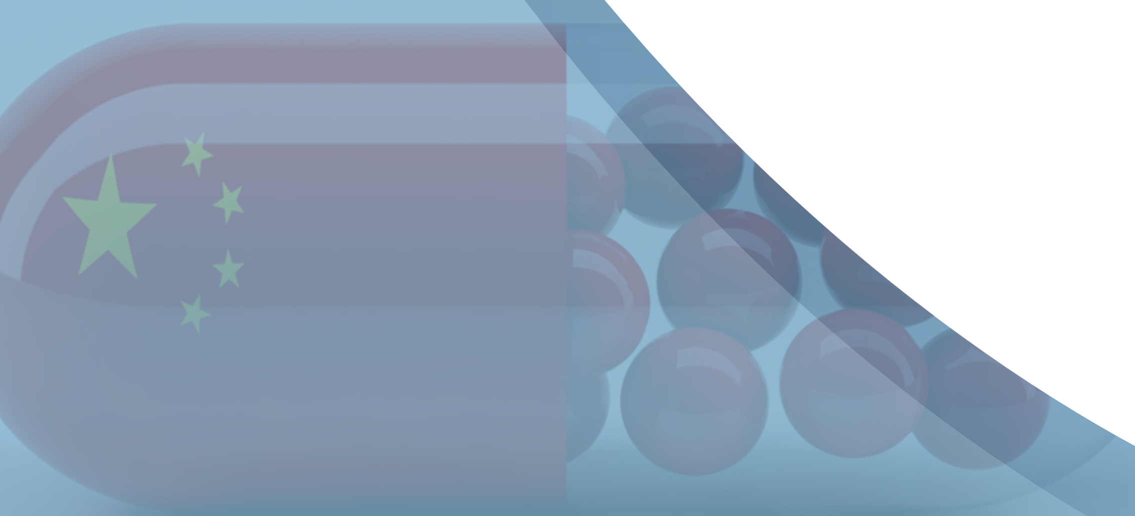
China Healthcare & Life Sciences:

Separating from the Pack

In our 2017 report "Healthcare and Life Sciences: The Evolution of China's Next Big Market," we laid out the case for healthcare becoming the next sector in China to attract significant amounts of investment from private equity. Our thesis was straightforward: China's healthcare sector was ripe for investors to help address the demand for more, and better, drugs and services. We believed then, as we do now, that private markets would provide the optimal venue to capitalize on the growth in this sector.

Since then, our thesis has been borne out. Private equity investment in China's healthcare sector has continued to increase at a significant pace (**Figure 1**), and overall the sector has outperformed (**Figure 2**), although the number of investments in the sector started from a low base prior to 2015.

Our intention with this report is threefold: to provide an update on the themes behind the continued growth in investment activity; to discuss how private equity managers have been fine-tuning their strategies to adapt to this rapidly evolving market; and to explain how investors might shape their exposure to this opportunity set.



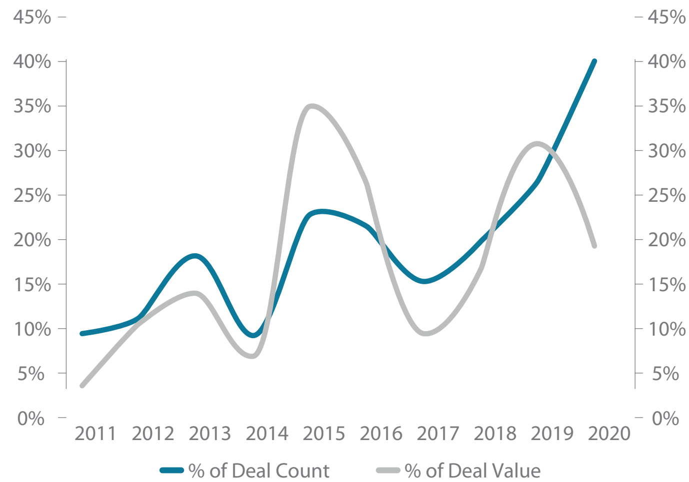
June 2021

Regulations Propelling Innovation

To encourage the creation of homegrown innovative drug companies, the NMPA (formerly known as the China Food and Drug Administration) has made good on its promise to make it easier for drug companies to bring new products to market.

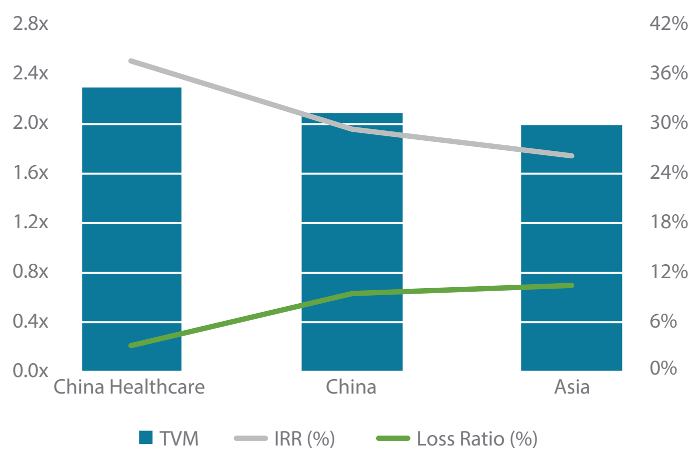
- The State Council's "The Opinions on Reforming the Review and Approval System for Drugs and Medical Devices" requires the NMPA to approve or reject every investigational new drug and new drug application within a certain time frame. The review process for drugs targeting AIDS, tuberculosis, viral hepatitis, malignant tumors, rare diseases, and common diseases among children and the elderly may be completed in as little as six months. Over the past several years, this scope has broadened to include drugs for life-threatening diseases and diseases affecting public health (including Covid-19 vaccines), among others. In addition, the "Conditional Approval Guidance" provides rules on the early use of new drugs where there is a pressing need to treat patients in a critical clinical condition.
- Joining the International Council for Harmonization made it possible for the NMPA to accept data from clinical trials conducted outside of China.
- The 2019 amendments to the Drug Administration Law (DAL) require the NMPA to approve or deny clinical trial applications within 60 working days. If the NMPA does not respond in time, the application is approved by default.
- The trend toward specialization and outsourcing is democratizing and propelling drug development. The DAL codified the concept of a marketing authorization holder (MAH), which allows biotech companies to outsource manufacturing to contract manufacturing organizations (CMOs). Previously, innovators had to invest in costly manufacturing facilities to commercialize their assets and gain access to the Chinese market. Chinese regulators have also encouraged the development of contract research organizations (CROs). WuXi Apptec and WuXi Biologics are well-known examples, but many more have grown into leading international organizations.

FIGURE 1 | HEALTHCARE PROPORTION OF OVERALL PE ACTIVITY IN GREATER CHINA



Source: StepStone Private Markets Intelligence, 2021.
Note: Sample includes close to 4,000 investments.

FIGURE 2 | BENCHMARKING CHINA HEALTHCARE (2018–2020 AVERAGE)



Source: StepStone Private Markets Intelligence, 2021.
Note: Sample includes more than 10,000 investments.

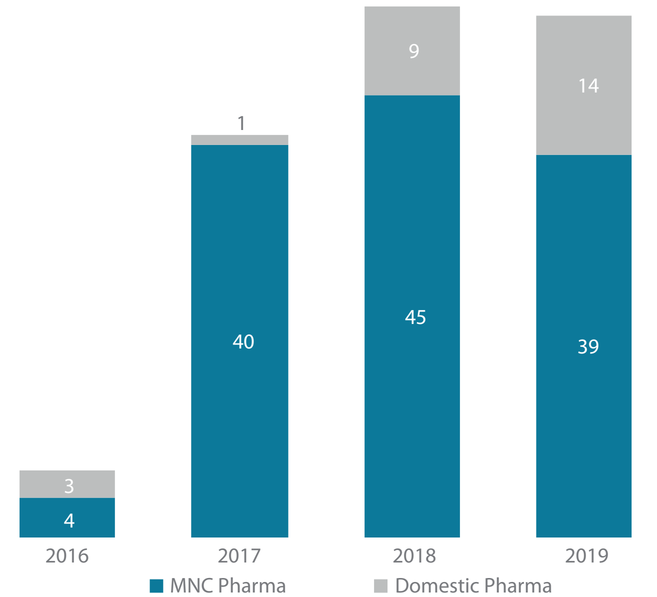
Owing to these reforms, new drug approvals have significantly increased in China, from 22 total in the four years between 2013 and 2016 to 53 in 2019 alone (**Figure 3**). Over this same period, the launch gap narrowed significantly, from more than eight years on average to less than five (**Figure 4**).

Affordability and Willingness to Pay Have Increased

Between 2008 and 2018, per capita healthcare spending nearly quadrupled, according to the World Bank.[1] There are several factors at play here. On the government side, China has sought to reform the insurance and payment systems as new and more expensive innovative drugs come to market. On the private side, middle-income Chinese consumers (numerous enough to constitute the third most populous country) are willing and able to invest in their health.

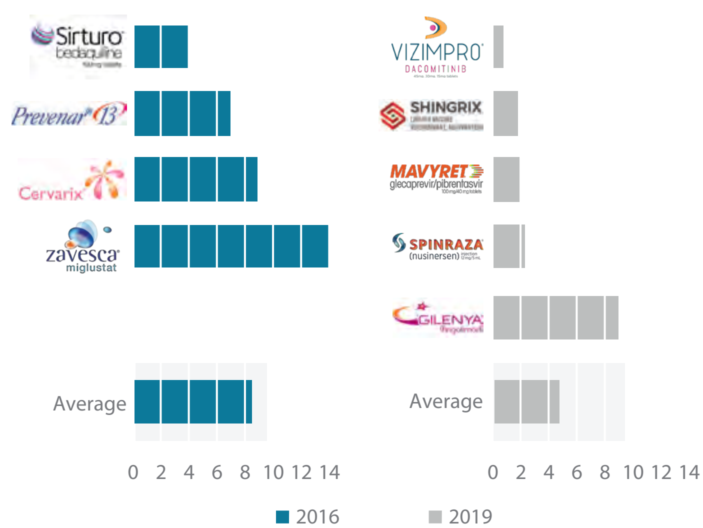
- The China Banking and Insurance Regulatory Commission (CBIRC) revised health insurance regulations and licensing rules in 2019 and 2020 to further diversify private health insurance supply, improve how insurance companies are run and overseen, and open the private endowment insurance market to foreign banks. With the increasing pressure on the national social healthcare system and regulatory developments, private health insurance is expected to grow quickly and become a more meaningful segment in the overall health insurance ecosystem.[2] Covid-19 may have accelerated this trend as healthcare has become top-of-mind for Chinese consumers. Broader insurance coverage is in turn expected to catalyze demand for better healthcare products and services.
- The National Reimbursement Drug List (NRDL) is a catalog of treatments that qualify for reimbursement under government-supported health insurance schemes. The list is reviewed approximately every two years to provide more timely reimbursement coverage for new drugs. According to McKinsey, 62% and 45% of innovative drugs marketed in 2017 and 2018, respectively, were included in the NRDL.[3] The period between when an innovative drug is marketed

FIGURE 3 | NUMBER OF DRUGS APPROVED BY NMPA



Source: NMPA.

FIGURE 4 | TIME BETWEEN APPROVAL TO SELL IN CHINA VERSUS OVERSEAS (YEARS)



Source: NMPA.

[1] The World Bank. 2021. *Current health expenditure per capita (current US$).* data.worldbank.org
[2] EY and CPIC Allianz Health Insurance. 2019. "White Paper on China Commercial Health Insurance."
[3] McKinsey & Company. 2020. *7th China Healthcare Summit*. Digital Event. 42.

and when it is included in the NRDL has been decreasing (**Figure 5**). For example, MabThera, a rituximab, was added to the NRDL in 2017, 18 years after it was first marketed in China. By comparison, TYVYT, a sintilimab injection, was added to the list just one year after it was launched. Drugs included in the NRDL are subject to price cuts in exchange for a significant boost to sales volume and market penetration.

More Channels for Pre-Profit Companies to Go Public

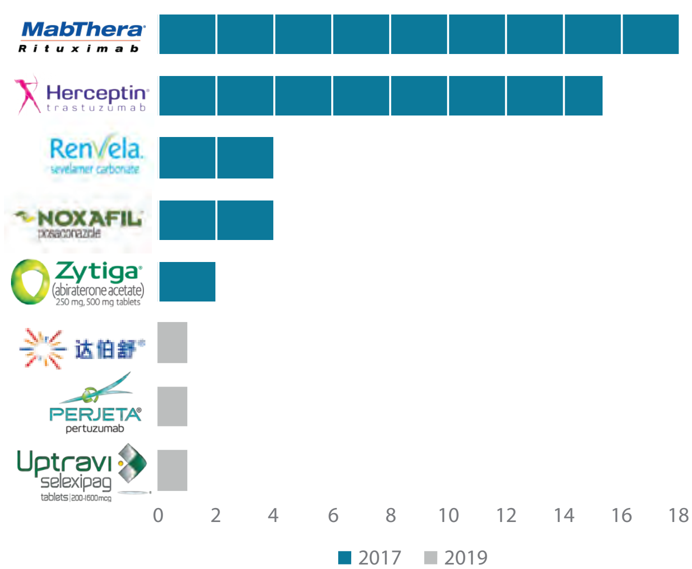
Recent regulatory reforms at the Hong Kong and Shanghai Stock Exchanges have enhanced capital market access for innovative companies, especially biotech firms.

In April 2018, the Hong Kong Stock Exchange (HKEX) published new listing rules, which permit listings of biotech issuers that do not meet the main board financial eligibility tests. In July 2019, the Shanghai Stock Exchange (SSE) launched the Science and Technology Innovation Board (STAR), which adopts a registration-based system similar to Nasdaq's and allows pre-profit companies to go public. Since the introduction of the new regulations, more than 20 pre-profit healthcare companies have gone public on the HKEX, and approximately 30 on the STAR board. The vast majority of these companies were private equity-backed. Innovative drug companies have been the biggest beneficiaries from these capital market reforms, which in turn have served as a key catalyst for private equity investment in China healthcare.

With the ability to list closer to home, 2020 was a historic year for healthcare IPOs: 14 on the HKEX and 32 on SSE's STAR market (**Figure 6**). On the back of this momentum, SSE and the HKEX

We expect Chinese biotech companies will increasingly focus on first-in-class and best-in-class products as broader insurance and NRDL coverage catalyzes demand for higher-quality healthcare products and services. From the demand side, we expect companies focused on innovative programs to attract private equity capital as companies utilizing "me too" or "me better" strategies face stiffer competition.

FIGURE 5 | TIME BETWEEN APPROVAL BY NMPA AND INCLUSION IN NRDL (YEARS)



Source: McKinsey & Company, 2019.

FIGURE 6 | CHINA HEALTHCARE IPOS

	HKEX 香港交易所 Chapter 18A			上海證券交易所 SHANGHAI STOCK EXCHANGE STAR Market		
	2019	2020		2019	2020	
Number of IPOs	9	14	▲ +56%	13	28	▲ +115%
Total amount raised ($US billion)	1.9	4.7	▲ +147%	1.4	6.5	▲ +353%

Source: Deloitte IPO Market Review (December 2020), Pitchbook, HKEX, SSE, StepStone Group analysis.

emerged as leading stock exchanges for public issuances (**Figure 7**).

Figure 8 summarizes the top and median private equity-backed healthcare IPOs, in terms of capital raised, on the HKEX, SSE and Nasdaq in 2020. HKEX and SSE have thus far offered higher valuations and raised more capital for companies compared with those that went public on Nasdaq.

Now that we have covered some of the key trends driving private equity investment in China's healthcare sector, we will discuss how GPs are addressing investment opportunities in this sector.

Healthcare Specialists Becoming More Entrepreneurial

GPs have started to incubate biotech companies by investing in a company's seed or series A rounds to acquire a majority equity position at more attractive valuations. Successful incubation requires technical expertise and resources, as well as a commitment to manage all aspects of nascent companies. GPs typically need to help build the team, develop the pipeline, manage the company's growth strategy, and provide financing and capital market solutions.

FIGURE 7 | TOP STOCK EXCHANGES IN TERMS OF IPO ACTIVITY IN 2020

1	2	3	4	5
Nasdaq	HKEX 香港交易所	上海證券交易所 SHANGHAI STOCK EXCHANGE	NYSE	深圳证券交易所 SHENZHEN STOCK EXCHANGE
203 new stocks US$57 billion raised	145 new stocks US$51 billion raised	228 new stocks US$49 billion raised	43 new stocks US$34 billion raised	160 new stocks US$18 billion raised

Source: Deloitte, 2020.
Note: Excludes investment trusts, closed-end funds, and SPACs.

FIGURE 8 | 2020 GLOBAL HEALTHCARE IPOS

	HKEX 香港交易所			上海證券交易所 SHANGHAI STOCK EXCHANGE			Nasdaq		
Top 3[(1)]	Zai Lab	RemeGen 荣昌生物	EVEREST MEDICINES 云顶新耀	CATHAY	康希诺生物 CanSinoBIO	君实生物 TopAlliance	LEGEND BIOTECH	GENETRON 泛生子	燃石医学 Burning Rock Dx
Capital Raised (Million US$)	766	514	451	802	745	684	424	256	223
Market Cap as of 31 March 2021 (Million US$)	11.8	6.1	2.8	5.1	11.5	10.9	3.8	1.9	2.8
Investment Round	A, B, C	A, B, C	A, B, C	A, B, C, D	A, B, C	A, B	A	A, B, C, D	A, B, C
Median 3[(1)]	Akesobio	PEIJIA	药明巨诺 JW Therapeutics	SCT 神州细胞 SinoCellTech	南新 NUCIEN	VISHEE 伟思	I-MAB BIOPHARMA	安派科 ANPAC	众巢医学
Capital Raised (Million US$)	333	302	300	182	177	165	104	16	12
Market Cap as of 31 March 2021 (Billion US$)	5.2	2.1	1.6	2.8	0.9	1.1	3.5	0.1	0.05
Investment Round	A, B, C, D, E	A, B, C	A, B	A, B	A	B	A, B, C	A, B	B

Source: S&P Capital IQ, HKEX, SSE, Nasdaq, Pitchbook.
(1) In terms of gross offering amount.

When the company reaches an inflection point, GPs may be in a position to cash out a portion of their ownership via a secondary sale. This is becoming more common in China's biotech sector, where demand from private equity investors is rising, the companies' cash needs notwithstanding. Owing to the new listing rules, GPs can incubate a company and list it before the company generates meaningful revenue. For example, OcuMension Therapeutics went public on the HKEX within two years of being formed.

As incubation has the potential to bring about outsize returns, the strategy has become increasingly popular in China. Each manager may have a different approach to incubation, leveraging their unique expertise, resources or industry positioning. Initial investment size can range from several hundred thousand dollars to more than $50 million. As summarized in **Figure 9**, generally, StepStone has seen three approaches to incubation:

1. Identifying top talent and building a team around them. The founding team typically comes from scientific backgrounds, possessing years of experience at pharma MNCs.

2. "In-licensing" validated assets from foreign companies to be further developed and eventually commercialized in China. These assets address unmet needs in China and have typically been approved by the US FDA or are in advanced stages of clinical trials.

3. Carving out a specialty pipeline or a business unit from an existing company. The target could be identified from an MNC looking to divest low-priority assets or a pharmaceutical company seeking to monetize its pipeline.

FIGURE 9 | INCUBATION STRATEGIES

	Talent-centered	Asset-centered	Carve-out
Management Team	Scientists from MNC or domestic pharma/biotech	Assembled by the GP	Carved out from MNCs/existing company or assembled by GP
Pipeline	• Developed from scratch • Early stages of development	• In-licensed • In various phases of clinical trials	• Acquired from the seller/JV partner
Innovation	Target breakthrough, first-in-class or best-in-class assets	Target first-to-China or best-in-class assets	Target relatively mature, approved or commercialized assets
Timeline	●●●	●◖	●◖
Risk Profile	●◖	●	●
Key to Success	Identify the right scientist entrepreneurs	Identify quality assets with large unmet needs in China and win over other bidders at reasonable price	Commercialization and leveraging the existing platform for sustained pipeline development
Example	Elpiscience • A clinical-stage biopharma company focusing on cancer immunotherapy • Completed series C financing of US$105 million in May 2021	EVEREST MEDICINES 云顶新耀 • A late clinical-stage biopharma company focused on licensing, developing and commercializing globally innovative therapies • Listed on HKEX in October 2020	VIELABIO • A spin-off of AstraZeneca, dedicated to drugs for autoimmune and severe inflammatory diseases • Listed on Nasdaq in October 2019; recently acquired by Horizon Therapeutics

Source: StepStone Group analysis.

Out-Licensing

While in-licensing has helped to bring innovative drugs to China, the reverse has taken place as well, either by "out-licensing" Chinese-made candidates to companies abroad or conducting clinical trials and developing assets overseas.

The number of out-licensing partnerships forged between Chinese biotech companies and international players has been increasing: 2020 was a record year for such deals. The scope and value of out-licensing deals have also increased, ranging from products in various developmental stages to technology platforms. Below are select out-license partnerships valued at over US$1 billion.

- **August 2020**—Eli Lilly and Innovent announced a global expansion of their strategic alliance for TYVYT, a medication used to treat Hodgkin's disease that was codeveloped by Innovent and Eli Lilly in China. Under the terms of the agreement, Eli Lilly obtained an exclusive license for TYVYT outside of China and planned to register TYVYT in the US and other markets.[4]
- **September 2020**—AbbVie and I-Mab signed a broad, global collaboration agreement to develop and commercialize TJC4, a medication used to treat multiple types of cancer.[5] Including milestone payments, this would be one of the largest out-licensing deals struck by a Chinese biotech firm.
- **October 2020**—CStone Pharmaceuticals granted EQRx, an American biotech company, a license to develop and commercialize two cancer-fighting drugs outside greater China.[6]

All of these are evidence that Chinese innovations are contributing to the advancement of life sciences globally.

[4] Eli Lilly and Company. 2020. "Lilly and Innovent Announce Global Expansion of TYVYT Licensing Agreement," August 18.
[5] AbbVie. 2020. "AbbVie and I-Mab Enter Into Global Strategic Partnership for Differentiated Immuno-oncology Therapy," September 4
[6] CStone Pharmaceuticals. 2020. "CStone and EQRx Enter Global Strategic Partnership for Two Immune Checkpoint Inhibitors: sugemalimab (anti-PD-L1) and CS1003 (anti-PD-1)," October 27.

Upstream Opportunities in CXOs

For many companies, outsourcing R&D, manufacturing and marketing is often less expensive than building those capabilities in-house. China's biotech companies are no different. To cut costs, they turn to some combination of CROs, contract development and manufacturing organizations (CDMO), or contract sales organizations (CSO). Collectively referred to as "CXOs," these firms provide a variety of services that encompass the entire life cycle. The emergence and growth of the global CXO industry has enabled the democratization of innovation at economies of scale for the biopharma industry.

In China, CXOs first emerged as a less expensive alternative to their larger and more established foreign counterparts that primarily serve clients overseas. With the development of the domestic biopharma industry, the number of Chinese clients has grown, accounting for an ever larger share of CXOs' revenue.

Regulatory reforms in the past five years have facilitated this growth of China's CXOs. Notably:

» The Generic Drug Quality and Efficacy Consistency Evaluation provided outsourced lab test opportunities for CXOs.

» Value-based procurement incentivized large domestic pharmaceuticals, which traditionally focused on generics and biosimilars, to engage in innovative drug development. Given limited in-house R&D capacity, some of that R&D has been outsourced.

» The MAH has allowed biotech startups to outsource manufacturing and concentrate on R&D.

For GPs investing in healthcare, CXOs are a way to invest in China's biotech sector without having to take on the scientific risk associated with biotech investments. **Figure 10** describes several recent CXO deals.

Platform Building and Consolidation for Medical Devices

In 2018, China became the fourth-largest medical device market worldwide with a market size of US$79 billion.[7] By 2030,

FIGURE 10 | SELECT CXO TRANSACTIONS

Public Market

Tigermed 泰格医药

• A leading clinical CRO provider in China

• Listed on HKEX in August 2020

康龙化成 PHARMARON

• An integrated pharmaceutical R&D service platform supporting the life sciences industry in China, the US and Britain

• Listed on HKEX in January 2019

Private Market

ABclonal

• A life sciences research and diagnostic reagents and CRO services provider

• Completed series C financing of US$92 million in December 2020

臻格生物 ZHENGE BIOTECH

• A macromolecular pharmaceutical CDMO provider

• Completed series B financing of US$70 million in March 2021

dMed 缔脉

• A full-service clinical CRO provider

• Completed series C financing of US$100 million in December 2020

Source: StepStone Group analysis.

FIGURE 11 | INVESTMENT APPROACHES IN MEDICAL DEVICES

Platform

康基 KANGJI

• Minimally invasive surgical instruments

• Listed on HKEX in June 2020

High Value

PEIJIA 沛嘉医疗

• Transcatheter valve therapeutics and neuro-interventional procedural devices

• Listed on HKEX in May 2020

Large Addressable Market

心玮医疗 STROKE CARE

• Minimally invasive products to treat and prevent ischemic strokes

• Completed crossover financing of US$64 million in December 2020 and is preparing to IPO on HKEX

Source: StepStone Group analysis.

[7] Research and Markets. 2020. "Domestic Substitution & a Heated Capital Market: The Medical Devices Industry in China in 2020."

China is projected to rise to second place with more than 25% of the global market at over US$200 billion.[8] The robust growth in the medical device space has been driven by unmet demand. For example, the density of radiotherapy units per million population was 1.1 in China, versus 12.4 in the US, according to the WHO.[9]

Compared with biopharma, regulatory reforms have been relatively muted in the medical devices space. Certain "innovative" and "prioritized" devices are eligible to undergo a faster review process. Nevertheless, the industry is one of many identified by "Made in China 2025," a strategic plan that aims to accelerate the country's transition from low-end manufacturing toward value-added production. The number of domestic players in higher-end medical devices is expected to grow in an industry that has been historically dominated by multinationals.

In the US, the medical devices market is highly consolidated with a smaller number of dominant players actively acquiring startups, thereby consigning private equity investors to the sidelines. Only in rare situations do medtech startups pursue stand-alone IPOs. This is not the case in China. Since the introduction of the STAR Board in 2019, more than a dozen medical devices and equipment companies have gone public in China including Tinavi, Microport, Venus Medtech and Kangji. During the same period, only a handful went public in the US.

These tailwinds have contributed to elevated investment activity in the medical devices segment, especially in the later stages. Nevertheless, Chinese medical device companies continue to face a series of challenges:

- » The industry remains highly fragmented and sub scale. The absence of a critical mass of scaled players has led to a sluggish M&A market. As such, IPOs have historically been the primary exit route for investors, despite difficulties for single-product companies in reaching scale.
- » Most companies are talent- and capital-constrained and therefore engaged in the marginal improvements for imported products. Low entry barriers have led to fierce competition at the lower end of the market.
- » Policies that came into effect in the past two years, such as "two-invoice," provincial- and hospital-level RFP and value-based purchasing, have put pressure on the top and bottom lines of smaller players with limited negotiating power.
- » Compared with biopharma, the medical devices industry has yet to see an influx of seasoned technical and managerial talent.

The state of the medical devices industry and continued reforms and development make it an interesting sector for consolidation opportunities. Potential investment opportunities for private equity funds include:

- » Platform companies with multiple product lines. These companies have higher revenue potential, are more efficient when it comes to SG&A, and possess negotiating power.
- » Companies focused on innovative and higher-value products. Higher entry barriers and stronger bargaining power serve to protect margins, while innovation is crucial to continued growth.
- » Companies operating in large addressable markets. Big or small, these companies can be consolidators or acquisition targets to form players at scale.

Heated Market for Healthcare Service Chains

While healthcare services have been among the largest areas for private equity investment in developed markets, China's hospital and clinic industry has historically been largely off limits to private investors. This began to change in 2014 when the government issued guidelines for hospital reform and private sector participation, offering tax breaks and allowing public hospital doctors to practice at multiple locations.

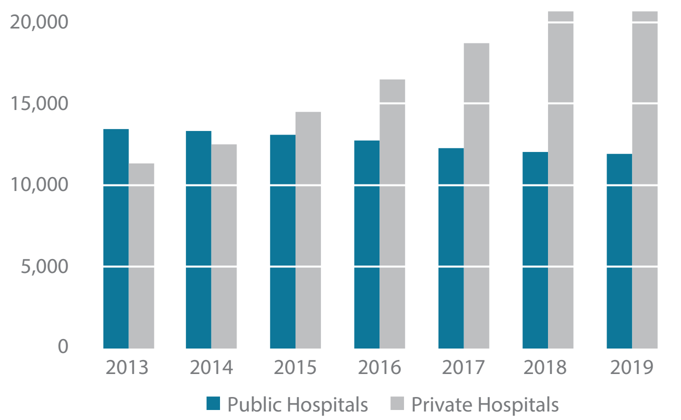
Following the issuance of the guidelines, there has been a surge in the number of private hospitals. As of 2019, there were

[8] KPMG. 2018. "Medical Devices 2030: Making a power play to avoid the commodity trap."
[9] World Health Organization. 2021. *Medical equipment (density per million population).* who.int

22,424 private hospitals in China, accounting for 65% of the total number of hospitals (**Figure 12**).

The most sought-after segments by PE funds have been dental, ophthalmic, orthopedic, OB-GYN, post-surgery rehab and long-term care chains. These specialty hospitals and clinics are focused on high-end and out-of-pocket services, resources that are lacking in public hospitals, or those bridging large gaps with international standards. **Figure 13** highlights some of the private equity investments in Chinese healthcare service companies.

FIGURE 12 | NUMBER OF PUBLIC AND PRIVATE HOSPITALS IN CHINA



Source: China National Health Commission.

GPs Are Adapting to the New Reality

A new crop of local healthcare sector specialists has emerged. We tracked just five such managers in China in 2010 and 25 in 2016. Today we track close to 50.[10]

Based on our coverage of the broader China market and its more specialized healthcare sector, we have identified several trends we are seeing at the GP level.

CROSS-BORDER TEAMS

In addition to deal sourcing, maintaining a presence on both sides of the Pacific allows GPs to keep abreast of the latest scientific breakthroughs, maintain close relationships with investor/entrepreneur communities, and originate in-license and out-license partnerships.

FIGURE 13 | SELECT PRIVATE EQUITY-BACKED HEALTHCARE SERVICE COMPANIES

Specialized hospital platforms

- A hospital and clinic network providing premium services
- Listed on NYSE in July 2019

- One of the largest private hematology hospital groups
- Targeting an IPO on SSE in 2021

- The largest oncology group in China
- Listed on HKEX in June 2020

Dental, ophthalmic, orthopedic chains

- One of the largest private dental service providers
- Targeting an IPO on HKEX in 2021

- An ophthalmic medical service provider
- Targeting an IPO on HKEX in 2021

- An orthopedic hospital operator
- Completed series D round of US$46 million in January 2021

Laboratory services

- An independent clinical laboratory company with 37 locations
- Listed on SSE in September 2017

- An independent clinical laboratory company with 13 laboratories
- Targeting an IPO on HKEX in 2021

Retail pharmacy

- The largest retail drug store operator in terms of revenue and number of stores
- Targeting an IPO in the near term

- One of the largest retail pharmacy chains
- Listed on SSE in April 2015

Pet and veterinary hospitals

- The largest pet clinic chain
- Targeting an IPO in the near term

- A pet clinic chain with 300+ clinics in 40+ cities
- Completed series C round of US$199 million in December 2019

Source: StepStone Group analysis.

[10] StepStone Private Markets Intelligence. 2021. SPI data are continually updated; historical values subject to change.

For the most part, Chinese GPs have not been materially affected by certain US laws that subject investments by foreign companies to greater scrutiny. Nonetheless, GPs have taken actions to mitigate risks and appease potential LP concerns. One common approach is to establish separate management companies and investment committees in China and the US, owned and managed by Chinese and American nationals, respectively.

BENEFITING FROM STRATEGIC PARTNERSHIPS

Lilly Asia Ventures was an internal investment arm of Eli Lilly before spinning off in 2011. CBC Group was anchored by the Tasly Group at its inception. 6 Dimensions Capital and TF Capital are backed by WuXi PharmaTech and Tigermed, respectively.

In their formative years, GPs may have counted on the financial backing and endorsement of large strategic companies to strike deals with entrepreneurs. Today, the potential access to clinical expertise, R&D and business development partnerships is arguably more valuable to GPs and their portfolio companies. In the case of Innovent, Lilly Asia Ventures helped the company establish a partnership with Eli Lilly in 2015, the first of its kind between a Chinese company and a leading MNC. This partnership has since expanded into an alliance ranging from licensing to codevelopment and co-commercialization of a range of cancer treatments.

STRONGER OPERATIONAL CAPABILITIES

Some GPs have adopted a semi-in-house approach, while others leverage primarily external ecosystems. Few have adopted a pure in-house approach given the breadth of knowledge required and fund size constraints.

We have seen several types of these resources. Ranked in order of ties with the GP, these include in-house portfolio management and business development professionals; operating partners who dedicate at least 50% of their time to the GP's activities and receive compensation from the GP; venture partners who maintain loose relationships with GPs; and advisors who are called upon from time to time to provide scientific, commercial or regulatory expertise. There is no one-size-fits-all arrangement. However, as GPs' org charts grow larger and more complicated, it is more important than ever to discern their core strategy and capabilities.

BROADER STRATEGIC COVERAGE

It is common for GPs focused on healthcare to make venture and buyout investments in the same vehicle, across several vehicles, or both. Portfolio assets can include biotech/pharma, devices/IVD and services. Some have ventured into the consumer space, expanding the definition of healthcare to cover personal care and lifestyle products and services.

We believe GPs are doing this for several reasons:

1. To build diversified and balanced portfolios for a more attractive risk-return profile;
2. To have the flexibility to go in and out of segments when competition intensifies or in response to macroeconomic events; and
3. To create ecosystems and realize synergies across the portfolio.

While we generally prefer for GPs to remain focused on their specialties, we appreciate that strategic flexibility may produce more attractive returns when executed with discipline and skill. As GPs increase their strategic coverage, they need to develop and acquire the talent required to navigate a more complex competitive landscape. All of these necessitate knowledge of local market conditions and rigorous due diligence.

MAKING AN IMPACT

Healthcare-focused GPs are making an impact, regardless of whether doing so is an explicit goal in their mission statements. Most GPs have focused on investing in areas where there is large unmet medical needs; some have paid attention to societal issues such as extending equitable access to healthcare and taking care of an aging population and marginalized groups. During the Covid-19 pandemic, several GPs provided support to frontline workers. We are also encouraged by the growing number of women who have recently made partner at their respective firms.

LP Considerations

PORTFOLIO CONSTRUCTION

Before diving into China's healthcare sector, LPs will need to assess how they are, or are not, investing in China. LPs that do not have any exposure to China might invest in one of the many generalist funds that have an allocation to healthcare. By doing so, newcomers can gain diversified exposure to China. If fund concentration is a concern, generalist funds can usually accommodate larger checks (i.e., US$100 million or more).

For LPs that feel comfortable adding healthcare specialists to their existing portfolios, the next step is deciding how much to allocate and how broad of a portfolio is desired.

MANAGER SELECTION

Once an LP has decided how to approach allocation to China and China healthcare, the next step is choosing the right GP(s).

Because of the rapid growth in China's healthcare sector, LPs should carefully vet a GP's track record and investment team.

For GPs investing in biopharma, it is critical to have investment professionals with a science background. Most established GPs will have a number of investment professionals who have advanced degrees in medicine, pharmacology, chemistry or biology. Such a background is necessary to evaluate and analyze clinical trial information or understand the treatment pathways for drugs or therapies a GP may be evaluating.

In addition to advanced science degrees, most GPs will have investment professionals who have worked on either the R&D or commercial side of the pharmaceutical industry. Such experience can help portfolio companies build out their sales teams or commercialize a product.

Private equity healthcare is where it is today thanks to better regulatory policy. As such, most GPs will look to hire at least one professional with previous experience at the NMPA or a good network there to understand the approval process and stage of approvals for drug and medical device companies.

Track records may be harder to evaluate: Most managers didn't begin systematically investing in healthcare until after 2015. Still, it is important to look at how a GP has deployed capital and the types of deals they have pursued. Identifying whether the GP led the investment round and what role the GP is playing at the company is important. Since most healthcare companies have raised multiple rounds, reference calls can help in this regard.

SUBSECTOR INVESTMENT FOCUS

Another consideration is subsector focus. LPs that are more comfortable with venture-type risk might focus on GPs that overweight biopharma, where risk tends to be binary: Going public before you have a final product and are turning a profit can cut both ways. LPs looking to mitigate portfolio risks might invest with GPs that invest in a broader range of companies, including medical devices and healthcare services, which tend to be immune from scientific risks and require capital for scale and expansion.

GEOGRAPHIC FOCUS

Owing to the international nature of biopharma and the medical device market, GPs are increasingly setting up teams in the US to help procure molecules and medical devices. StepStone recommends that LPs encountering a GP with a China and US investment strategy try to understand whether the US strategy is independent of or supplements the China strategy. If the US and China teams are acting independently, LPs should be able to evaluate the teams and strategies separately. It is also important to understand the governance structure of the GP and how economics are determined. If the US strategy is focused on investments supplementing the China strategy, LPs should focus on what type of deals the GP has done in the US and how those have benefited from the GP's presence in China.

Conclusion

Over the past several years, China healthcare sector has developed quickly. We expect macroeconomic, demographic and regulatory tailwinds to provide GPs with the room they need to deploy more capital into biopharma, medical devices and services. Not only have institutional-quality managers grown more numerous, they have also become more sophisticated, forging strategic partnerships with leading drug companies and developing stronger operational capabilities. This, combined with the market's overall momentum, has contributed to healthcare private equity's outperformance. LPs looking to gain or broaden exposure to Asia and China may find healthcare compelling, either on its own or as a complement to an otherwise generalist portfolio.

Market Map

Over the past decade, the number of GPs specializing in healthcare has grown significantly. We tracked five such managers in 2010; today that number is closer to 50.

The market map below is not comprehensive. Rather, it is meant to provide a snapshot of GPs and to illustrate the size and scope of China's healthcare specialists.

GPs with Cross-Border Capabilities

Early Stage	Growth Stage	Late Stage / Control	Status	Drugs / Therapeutics	Devices / IVD	Services / Consumer
Vivo Capital IX, US$1,400M			Back Within 2 Years	✓	✓	✓
C-Bridge Healthcare V, US$1,200M			Raising	✓	✓	✓
Lilly Asia Ventures VI & Opportunities, US$1,350M			Closed	✓	✓	
OrbiMed Asia Partners IV, US$800M			Closed	✓	✓	✓
LYFE Capital III, US$550			Back Within 2 Years	✓	✓	
120 Capital (fka 6 Dimensions) I, US$500M			Raising	✓	✓	✓
Decheng Capital IV, US$670M			Closed	✓	✓	
3E BioVentures III, US$300M			Raising	✓	✓	
Panacea Venture II, US$250M			Raising	✓	✓	✓
QUAN Venture II, US$275M			Back Within 2 Years	✓		

GPs Investing in China Only

Early Stage	Growth Stage	Late Stage / Control	Status	Drugs / Therapeutics	Devices / IVD	Services / Consumer
	GL Capital III, US$450M		Closed	✓	✓	✓
Cenova Ventures II, US$450M			Raising	✓	✓	✓
Highlight Capital III, US$430M			Back Within 2 Years	✓	✓	✓
Long Hill Capital III, US$300M			Closed	✓	✓	✓
Yuan BioVenture II, US$250M			Raising	✓	✓	✓
Legend Capital Healthcare II, US$225M			Back Within 2 Years	✓	✓	
Sherpa Healthcare Partners II, US$350M			Raising	✓	✓	

Back Within 2 Years Raising Closed

Source: StepStone Private Markets Intelligence, May 2021.
Note: Fund size reflects the latest fund closed, or target size of current fund.
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