

How COVID-19 changes the game for biopharma in China

Five areas biopharmas should consider as they deal with the crisis.

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Introduction

The COVID-19 crisis is fundamentally changing how biopharmas operate in China. It has put short-term pressure on budgets, reduced treatment of non-COVID-19 patients, and undermined market fundamentals. Equally, it has revealed a number of new focus areas, amid expectations for rising investment and a supportive policy agenda as the economy recovers. The urgent task for biopharmas is to mitigate the short-term impacts of the outbreak and prepare for a reformed landscape once normality returns.

China is the world's second largest pharmaceutical market and a strategic priority for most global players. The market is complex, and has become more so as the crisis has played out. Expectations for economic growth and healthcare spending have been revised downward and companies have struggled to deliver normal levels of patient impact. Product approvals have continued, but launches have faced challenges, reflecting fewer diagnoses as hospitals have seen constrained capacity and fewer patients. Chronic therapies have been affected to a lesser extent, with patients able to secure longer prescriptions and obtain medicines through retail pharmacies and online platforms.

As biopharma leaders contemplate these dynamics, we see five topics that should be high on the agenda. These comprise constrained healthcare budgets in most (but not all) areas; shifting patient flows, amid an evolving provider role and growth of new channels; the need for new go-to-market models, reflecting the continuing emergence of digital-supply-chain challenges, and a range of new government policies.

The five topics should be regarded as risks in the current environment but also potential areas of opportunity. It is vital that biopharmas now gauge their impact and respond appropriately, based on individual positions, capabilities, and aspirations. The mark of success will be a post-COVID-19 proposition that supports growth and ensures flexibility and resilience in the years ahead.

Taking stock – five critical variables

As the COVID-19 crisis abates in China, biopharmas might think carefully about how things have changed, and might change, across the important variables impacting the business. Five areas stand out as worthy of attention as the situation on the ground evolves:

1. Impact of the crisis on healthcare budgets

There is a consensus that COVID-19 will have a negative impact on the economy and therefore healthcare expenditure. McKinsey Global Institute estimated before the COVID-19 outbreak that spending would grow to 6.6 percent of GDP in 2020, and that the economy would expand by 5.9 percent. Those numbers produced a baseline value for expenditure of RMB 6,930 billion. Given the impact of COVID-19 on the global economy, China's GDP growth is now more likely to be in the range of 1 percent to 2.3 percent. (In the first quarter of 2020, China's GDP dropped 6.8 percent compared to a year earlier, according to government statistics.) To maintain the predicted absolute value of spending, the government would need to raise spending as a proportion of GDP to between 6.8 percent and 6.9 percent, according to McKinsey analysis. Conversely, maintenance of 2019's 6.5 percent of GDP in healthcare spending would lead to a decline of RMB 340 billion – 420 billion in spending this year.

The rollout of volume-based procurement (VBP) will likely continue through 2020. These could be accompanied by an increased focus on efficiency-focused policies, in line with the recent piloting of Diagnosis Related Groups (DRG) and increased scrutiny on prices for medicines on the National Reimbursement Drug List (NRDL).

On a more positive note, there are some areas that may see increased budgets. Following the SARS crisis in 2003, the government announced significant upgrades to CDC infrastructure and information systems, for which hospitals were required to assign 5 percent of revenues. We

may see similar initiatives undertaken. There could be increased spending on primary care (182 new fever clinics were announced in Shanghai on March 26) and a willingness to invest in more advanced disease-prevention capabilities. Given the importance of digital solutions during COVID-19's quarantine period, it would make sense to see more support for 5G networks and artificial intelligence. This would also reflect the pattern of increased tech investment after the SARS crisis.

A drop in hospital patient flows and the experience of previous crises suggest industry revenues will have fallen sharply in recent months. However, previous episodes were followed by speedy rebounds. Data from the SARS crisis shows Beijing outpatient flows and inpatient numbers rose 22 percent and 28 percent, respectively, in the year following the outbreak. Healthcare spending increased and continued to rise in subsequent years.

2. Shifting patient flows

As COVID-19 took hold, hospitals shifted resources and capacity to treat infected patients. The latest NHC data shows a ~40 percent decline in hospital visits across the country (except Hubei province) in February. Class III hospitals took the biggest hit with a more than 50 percent decline in patient volume. The trend is consistent with our physician surveys, which reflects that recovery is faster in lower-tier healthcare facilities too (Exhibit 1).¹ More than nine in ten physicians reported that outpatient flow was negatively impacted during the outbreak. Class II and III hospitals were particularly affected. Outpatient numbers fell by 60 percent across the board in February and sales of prescription drugs declined by 27 percent year-on-year.² Both have now started to recover, but many hospitals are still operating below capacity.

After the crisis, demand for healthcare will inevitably normalize (over a period of about two years, based on the experience of the SARS crisis) but patient flows may continue to shift towards mid- and lower-tier hospitals, online platforms (internet hospitals and online pharmacies), and retail pharmacies as dispensing channels.

3. New go-to-market (GTM) models

Three key impacts of the crisis have been rising demand for digital solutions, more prominent roles for pharmacies, and a changing relationship between biopharmas and doctors, who have been much less able to meet face-to-face. These dynamics have played into many of the wider trends shaping the industry, and are unlikely to retreat once the crisis abates. The implication is an urgent need for development of new models to reflect a changing GTM landscape.

The rise in use of digital platforms has been one of the defining characteristics of the outbreak, with internet hospitals and online pharmacies playing a key role in delivering medicines (there was a 10x increase in online prescription volumes in the early part of the year).³ Visits to NHC hospitals via online channels rose 17-fold during the peak of the crisis. Local government also ramped up its use of digital. Eight provinces implemented online BMI settlement of internet-based medical expenses. In addition, authorities scaled up educational webinars and online guidance, for example, highlighting where patients could obtain medical services.

Biopharma companies and healthtech players have worked to enhance the digital healthcare environment. When MNC biopharmas launched new products during the crisis, they deployed significant virtual support resources. Local healthtech companies, meanwhile, worked to tailor their services to COVID-19-related needs. Baidu offered free access to its "Ask a Doctor" mobile app and JD Health enabled free consultations around the clock on a global basis. Ali Health launched a free online diagnosis service, again available to use from China or international locations, and provided home delivery of drugs for some chronic diseases. Tencent launched its "COVID-19 Epidemic Service Platform", offering an integrated prevention and control solution with a range of commercial partners. Haodf.com collaborated with 210,000 public hospital doctors to launch a free online diagnosis campaign.

¹ April 2020 physician survey conducted in collaboration with Yixuejie (医学界) 2020

² "China Healthcare Hospital Rx Monthly," Morgan Stanley Research, April 7, 2020

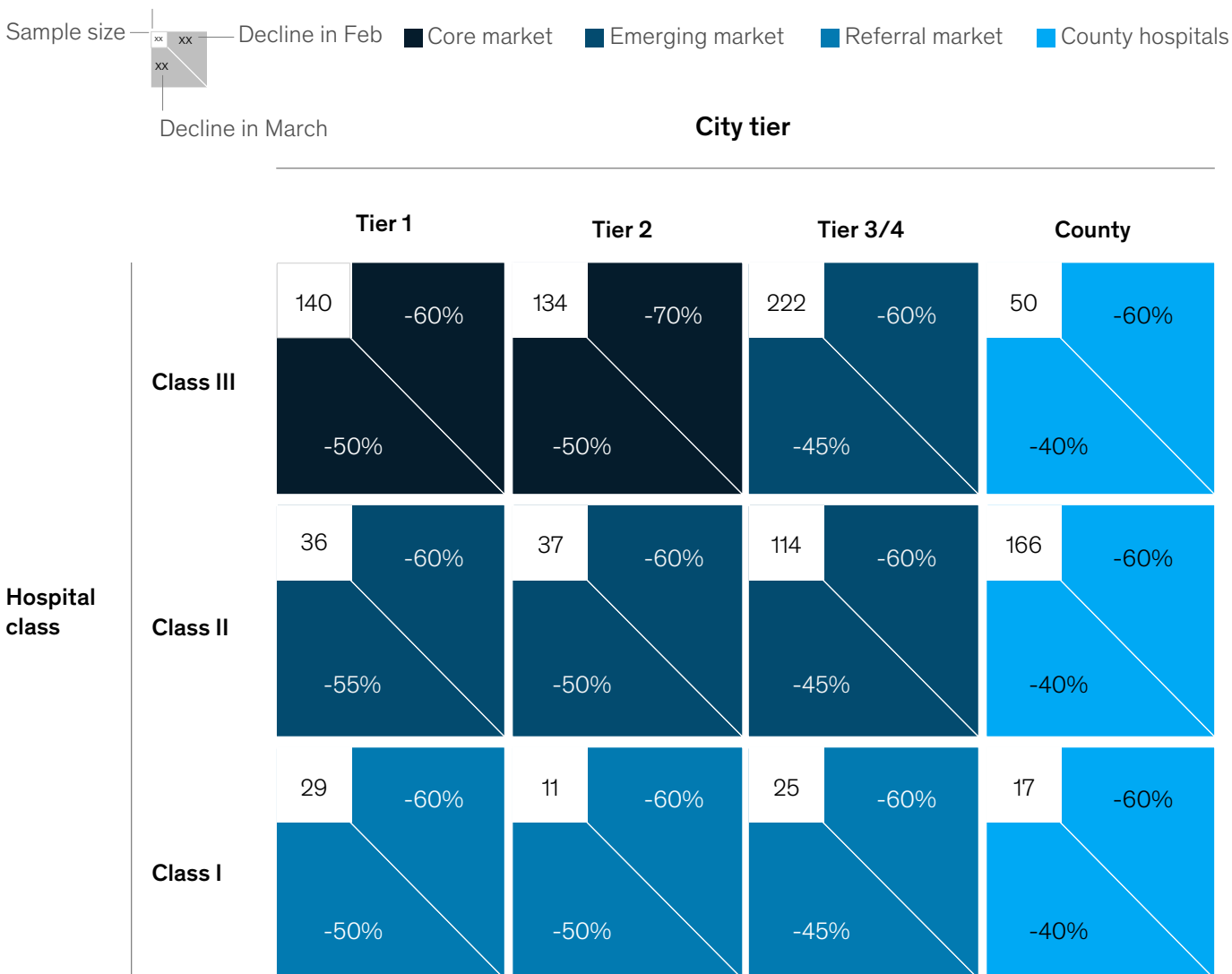
³ Cumulative visits as of March 20th from NPC reports

“Patient numbers are slowly recovering. We are operating at 30-40 percent of capacity. As we are the designated hospital for COVID-19 patients, we can only open half of our beds to other patients.”

Class III Hospital Director

Exhibit 1

A significant drop in patient flow, with most impact in top hospitals
Outpatient # decline during outbreak¹



¹Survey question: To what extent did your visits to the hospital decline in February and March over the same time the previous year?
 Source: Physician survey conducted by Yixuejie from 4/1-4/7 (n= 1,055)

Pharmacies played an important role in ensuring drug availability during the outbreak and their responsibilities are likely to continue to grow in its wake, with the support of regulation (see below). In response, pharma companies have started to build out omnichannel engagement and distribution models — a trend we expect to continue over the coming months.

Given obstructions to personal contact, biopharmas made more use of digital and remote tools during the outbreak, helping physicians obtain product- and disease-related information. WeChat, call centers, and remote education platforms played increasingly important roles.

4. Disruption in clinical development programs and supply chains

Drug development continued at the height of the outbreak. There was no sign of delays in approvals in January and February and regulatory pathways remained open (Exhibit 2). The NMPA granted 164 approvals in the first quarter, compared with 141 in the same period last year. The trend illustrates the NMPA's determination to continue to drive innovation.

Conversely, there were disruptions to clinical trials, a reflection of strict quarantine measures and a lack of clinician capacity, with most disruptions occurring in Hubei-based facilities. Before the outbreak, nearly half of trials in provincial capital Wuhan were conducted by multinational biopharmas. As

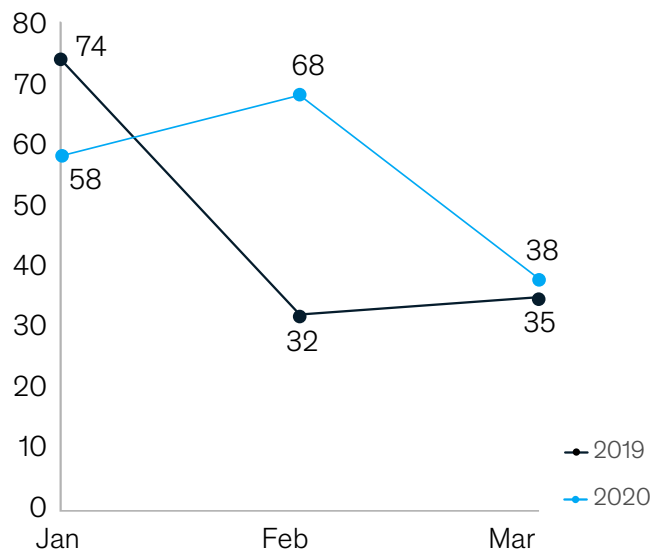
Exhibit 2

New drug approvals continued at the peak of the outbreak

Preliminary

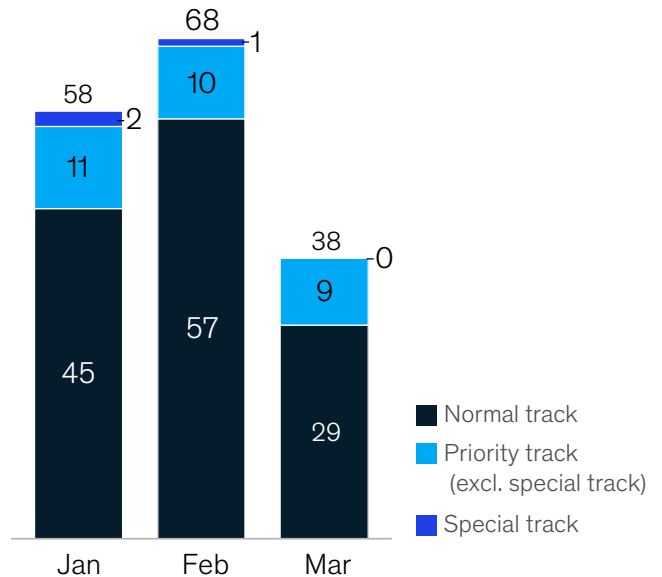
No sign of delay during outbreak

Number of approved NMPA applications



Approved drugs mostly following regular regulatory pathway

Approved applications in 2020



Source: GBI, NMPA, McKinsey analysis

the impact of the outbreak abates, trials are slowly picking up steam, based on anecdotal reports from clinical operations directors.

Manufacturing production has resumed in all cities in which MNCs have facilities. However, there is some doubt as to whether factories are operating at capacity. In addition, global disruptions in the active pharmaceutical ingredient supply chain may impact production in China and abroad. Antibiotics, diabetes drugs, painkillers, and antiretrovirals for HIV may be particularly affected. The constraints on manufacturing capacity may pose challenges to VBP participants with local production and may disrupt global supply chains. Further, there are likely to be lingering challenges around warehousing and distribution, especially for biologic products and test kits, which require cold chain resources.

5. An evolving policy landscape

Healthcare policy, already in flux ahead of the crisis, continued to evolve during the outbreak. In January, the National Healthcare Security Administration (NHSA) published new rules relating to how retail pharmacies should handle basic medical insurance

(BMI). It included provisions mandating the hiring of full-time pharmacists and dedicated areas for drugs covered by BMI. On April 7, Shanghai published guidelines on the creation of a new public health emergency management system by 2025 (see box out).⁴ The system will bolster the city's ability to cope with spikes in healthcare activity. It will use an emergency command information framework and smart decision-making to support insight, coordination, and resource management. On digital, China's National Health Commission (NHC) released a notification in relation to online diagnosis and treatment of COVID-19 that aimed to:

- Establish province-level online medical services platforms and COVID-19 prevention and control management;
- Integrate and publish registered internet hospitals and internet diagnosis and treatment platforms;
- Pilot reimbursement programs for internet hospitals in Wuhan and Shanghai.

Shanghai plans to create a 'safe city' by 2025

Shanghai in April announced a plan to upgrade its systems to cope with major epidemics and public health emergencies and become one of the world's safest cities by 2025. The program's primary focus will be on prevention, and the city will leverage big data, artificial intelligence, cloud computing, and blockchain to bolster epidemic prevention and control.

Shanghai will establish a city-level public health emergency command information system and a smart decision-making platform. These will inform decision makers and help them coordinate medical resources, communicate with stakeholders, organize departments, and predict trends.

A public health monitoring and early warning system is also planned. The city will establish monitoring sites at local fever and enteric clinics, and hospitals and medical institutes at all levels will share information. It will invest in physical resources, enhancing local disease prevention and control services through the upgrading of on-site investigation and treatment. The aim will be to establish a multi-level emergency treatment system at hospitals, treatment centers, regional treatment centers, and community health service centers.

To ensure sufficient provision of health services in the event of a new outbreak, Shanghai will likely make major public facilities convertible into emergency medical facilities.

⁴ Shanghai aims to become one of the world's safest cities in public health by 2025, SHINE, April 8, 2020

Looking to the future

Many in the industry are predicting a speedy reversion to normal levels of demand in the coming months, and there have been encouraging signs of recovery, with prescription volumes rising in March. However, the significant impact of the crisis and pressure on public funding create an imperative for leaders to take stock and think carefully about how to operate in China (and globally) in the wake of the pandemic. There are immediate questions around business continuity, the trajectory of spending constraints, and how to manage trial disruptions. There are also less urgent, but still critical, challenges in gauging how the Chinese market will evolve in the months and years ahead. A strategic focus could make a difference in the following areas:

Navigate beyond public funding to address budget constraints

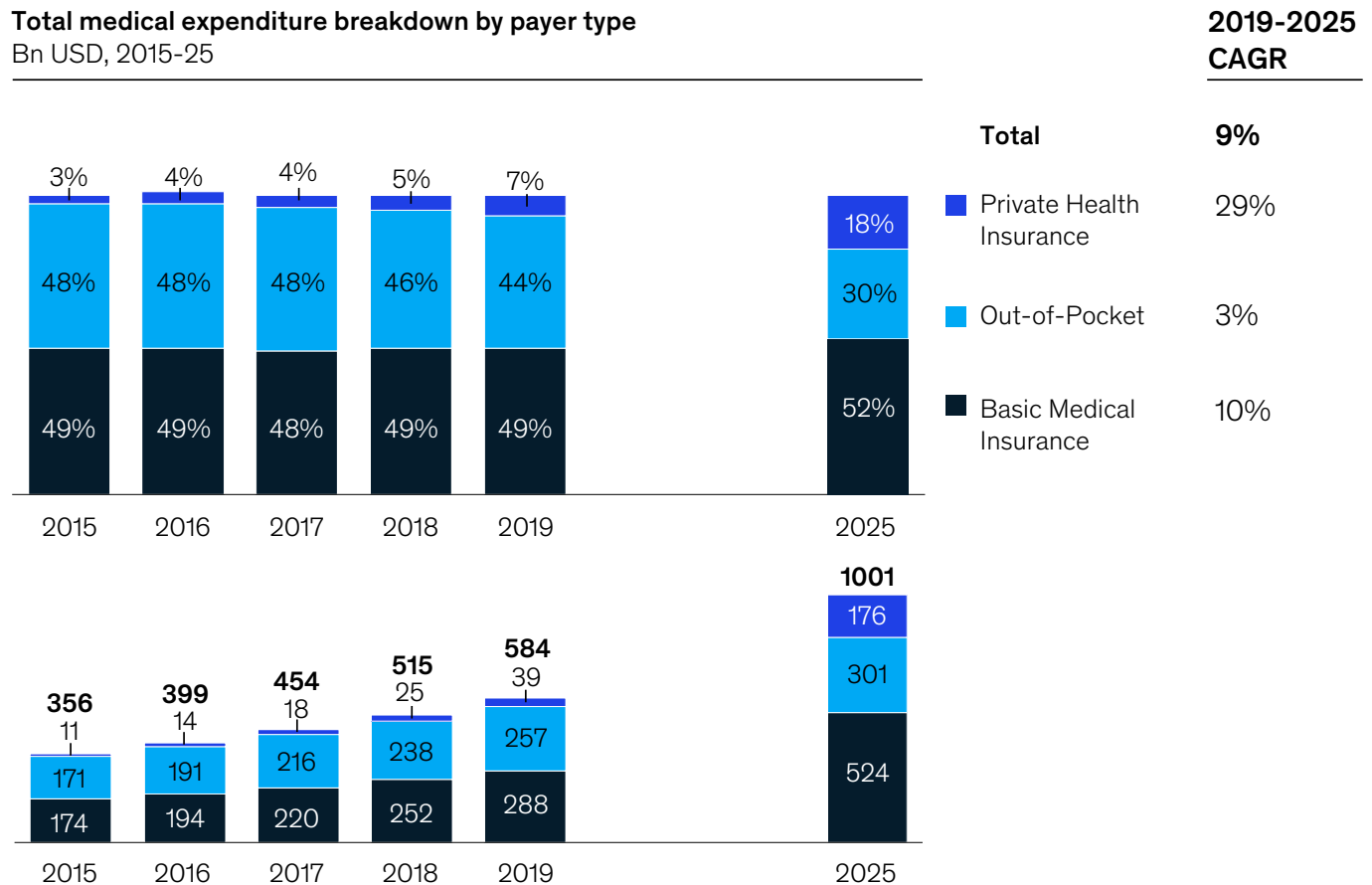
We expect healthcare budgets will be constrained over a one- to two-year period. Biopharmas might respond by modeling a range of scenarios and gauging their potential impacts on revenue models. Executives see VBP as a possible antidote, but acknowledge there is unlikely to be more from that source than already anticipated. Budget pressure is likely to precipitate an accelerated roll out of DRG.

A no-regret move for biopharmas is to extend planning beyond public funding, amid expectations for rising levels of self-pay and Private Health Insurance (PHI). We see private insurance accounting for 18 percent of medical expenditure by 2025, compared with 7 percent in 2019 (Exhibit 3). The predicted growth reflects a

Exhibit 3

PHI will be increasingly important after the outbreak

Total medical expenditure breakdown by payer type
Bn USD, 2015-25



Source: China Pharma GM Interviews, 2020

government target of a four-fold increase over the next five years, supported by a more accommodating regulatory environment and tax incentives. Amid signs of government support, the China Banking and Insurance Regulatory Commission in January advocated promotion of PHI in the social services arena. Tech disruption is another supportive factor, offering consumers educational resources and more choice. Some 70 insurance companies have expanded coverage to include COVID-19.

Adapt to new dynamics in patient flows

Biopharmas may adapt their operating models to reflect shifting patient flows, alongside a probable acceleration in tiered diagnosis and treatment. As more patients use lower-tier hospitals and primary care facilities, companies might consider rethinking engagement resource allocation and consider new approaches and technologies to help them engage. The growth of internet hospitals requires dedicated strategies, capabilities, and partnerships. These should be applied to promote stakeholder engagement and drug availability, and improve patient and physician experiences across a range of conditions.

With pharmacies set to play a more prominent role, biopharmas might seek to strengthen retail key account management systems, both with distributors and pharmacists, and enhance commercial capabilities. They should work to support disease education, reflecting the higher number of prescriptions being filled by pharmacies, and to ensure drugs are available when and where they are required (see below). As the market structure evolves, it makes sense to get ready to provide additional support to healthcare professionals, both on-site and digitally.

Recalibrate the GTM model

In a highly competitive environment, there is an imperative to develop GTM models that will serve as points of differentiation. The big challenge in doing

so is to crack the integration of offline and online activities. Before the crisis, the majority of activity was offline. In the new reality, companies should move toward providing services across channels, which would also reflect longer-term shifts in demand. Online consultations rose by 49 percent from 2012 to 2016, and are likely to see accelerated growth in the coming period, potentially exceeding 1.5 billion (across paid and free) annually by 2025. There may, in the wake of the crisis, be more opportunity to leverage online services to address real medical needs and ramp up services such as education and virtual assistance. In fact, away from the COVID-19 topic, there is growing evidence that local authorities would like to create a more powerful role for digital. Shanghai and Wuhan are among cities to have added online consultations to public insurance policies for 10 chronic diseases.

In building an omnichannel customer proposition, executive teams could consider assessing a range of strategic variables, from digital budgets to where they can most usefully invest. They could also work out how to measure the impact of digital engagement and prepare to develop external and internal capabilities, for example in data and analytics. Alongside these efforts, they might also foster an appetite for change and ensure digital tools and processes are effectively integrated with existing systems.

All of the major players are now acting to a greater or lesser extent. Indeed, some are investing as much as half of their sales budgets in digital, following an upsurge in activity during the crisis. One general manager spoke of “doing in two months what would have taken two years”, as the company moved all of its reps onto a digital platform. Digital acceleration is also informing longer-term planning. Some 70 percent of companies are considering an online/offline rep model, showing that they are embracing digital and remembering that face-to-face will continue to play an important role once normality returns (Exhibit 4).

COVID-19 will accelerate digital transformation and expansion of ecosystems

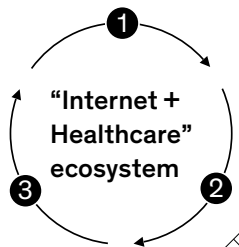
"Internet + Healthcare" ecosystem boosted during the outbreak



Healthcare payer

8

Provinces¹ implemented online BMI settlements of internet-based medical expenses



Healthcare provider

17x

More visits via NHC hospitals' online channel²



Pharma and medical products

10x

Online prescription volume²

¹Hubei, Shanghai, Beijing, Zhejiang, Jiangsu, Sichuan, Heilongjiang, Guangdong

²Cumulative visits as of March 20th from NHC reports

Source: China Pharma GM Interviews, 2020; McKinsey analysis

Digital transformation of commercial model is likely here to stay post-outbreak

100%

of companies interviewed are leveraging digital in commercial activities

~70%

of companies interviewed are considering an online/offline rep model post outbreak

With these dynamics in mind, companies may consider doubling down on technology investment and developing strategies for online engagement. Digital share of voice will be a vital source of differentiation, with companies lifting investment in omnichannel customer engagement models to compete on content, responsiveness, channel, messaging, "fun", and quality of advice, both in respect of customers and in facilitating interactions between patients and physicians.

Finally, while new launches fell dramatically over the past couple of months, the innovation space will likely continue to thrive. The NMPA has demonstrated its commitment to supporting innovation with high numbers of approvals and has explored use of real world evidence to support the approval process.

Manage the risk of clinical trial disruption

As the crisis abates, trial activity is picking up and companies are refocusing on mitigation strategies and risk management. Technology will be a critical tool in enabling virtual trials, digital monitoring, and logistics. At the same time, biopharmas could develop strategic approaches to site selection, probably planning for an overall increase in the number of sites. Where drugs can be self-administered, companies may consider hiring certified cold chain logistics companies to deliver directly to patients' homes.

The COVID-19 outbreak was certainly unexpected, a fact that should inform a vision of the future that emphasizes contingency planning for "tail events". Companies should formulate strategies

based on a range of scenarios, and work closely with regulatory agencies to guide data management, evaluate trials, and mitigate potentially negative impacts.

Engage constructively on policy

To help foster a more robust healthcare ecosystem, the government is likely to continue to develop and enhance healthcare policy. Biopharmas might consider engaging closely to ensure they understand how rules relating to access, innovation, insurance, and the role of technology may evolve. Possible policy initiatives include new standards for retail distribution, and in particular pharmacies, and legislation to encourage online diagnosis and care. There may be moves to encourage development of PHI capabilities, and to boost clinical trial site and data management. To support innovation, the NMPA is likely to continue to explore new pathways for approvals. Finally, authorities are likely to establish a strategic reserve for critical medical supplies around the country, which may provide a short-term boost to activity.

As these policy areas are developed, incumbents might consider engaging with authorities and adapting their strategy accordingly. This will provide an opportunity to foster greater understanding and ensure they are fully aligned with rules that will shape the business in the years ahead.

The COVID-19 outbreak has been a defining moment for biopharma in China, leading to short-term challenges and dynamics that may permanently change the face of healthcare. The good news is that the market remains fundamentally strong and is likely to be an important driver of growth as the country emerges from the crisis faster than elsewhere. Indeed, the net impact of recent events will likely be to bolster China's commitment to healthcare. Given the acute challenges in other geographies, the country could be relatively more attractive than it was before the outbreak.

Now is not the time to second guess investment strategy. Rather, biopharmas could consider leveraging the experience of COVID-19 to accelerate investment in promising areas (such as digital and retail), and ramp up engagement with key decision makers. There is likely to be significant momentum when GDP and budget pressures start to lift. At the same time, companies must pay heed to inevitable risks and contemplate the resilience, or otherwise, of market fundamentals. As the disease burden evolves, they should ensure they plan across the latest trends, and ring-fence resources for strategic investment when the opportunity arises. Those that can successfully manage a dynamic situation, and harness the potential of digital, are most likely to thrive in the months and years ahead.

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