

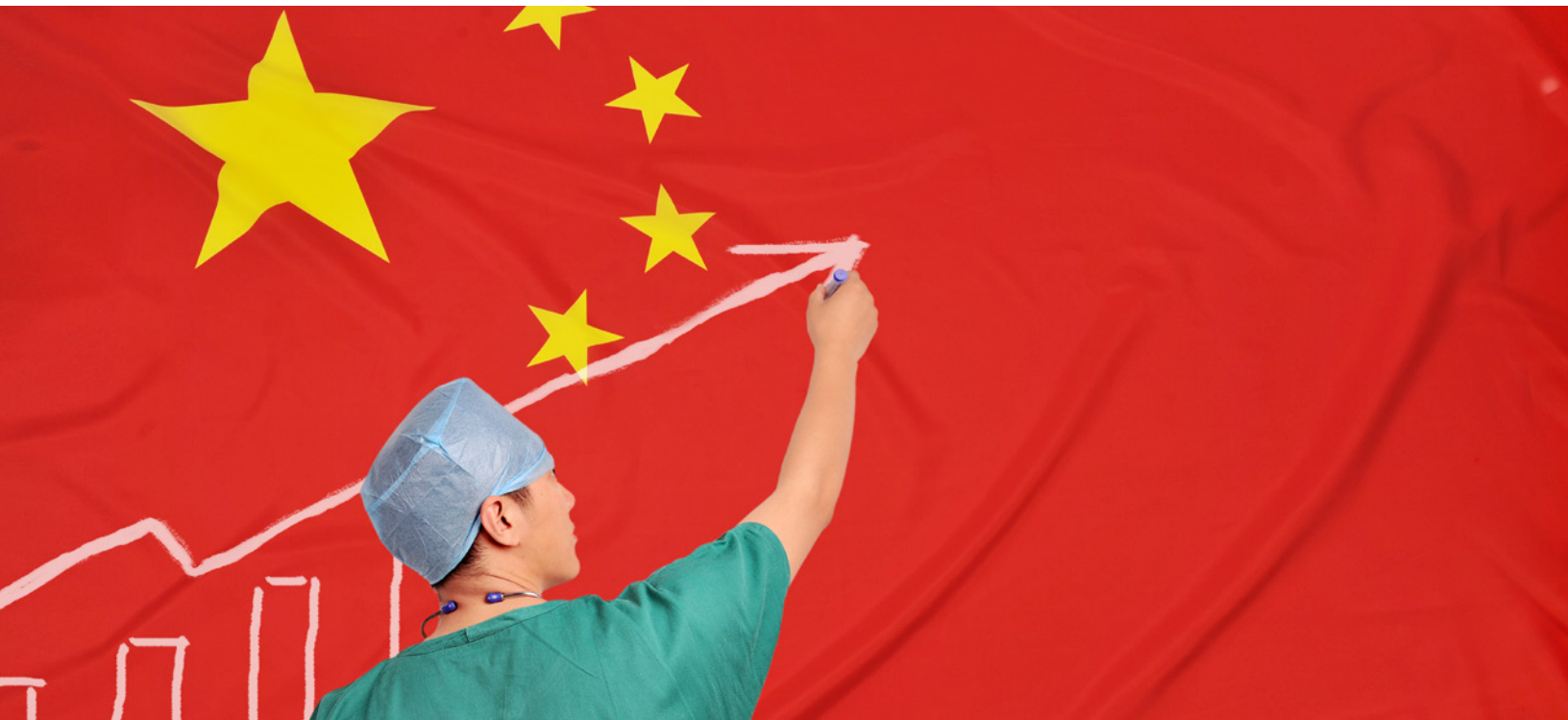
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# Health care in China: Entering 'uncharted waters'

**Multinationals are flocking to take advantage of the opportunities, but long-term success is by no means assured.**

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**China's health-care** sector continues to develop at an astonishing rate: spending is projected to grow from \$357 billion in 2011 to \$1 trillion in 2020. From pharmaceuticals to medical products to consumer health, China remains among the world's most attractive markets, and by far the fastest-growing of all the large emerging ones. It is not surprising that multinationals are flocking to take advantage of the opportunities, but long-term success is by no means assured. Although we remain optimistic about the overall outlook for China's health-care market, multinationals will find it harder to compete. We expect a clearer separation between winners and laggards. Late entrants may struggle.

Three themes will shape China's health-care market: the continuation of economic and demographic trends, further health-care reform, and the policies articulated in the government's 12th five-year plan. Some of these forces—such as improvements in infrastructure, the broadening of insurance coverage, and significant support for innovation—will have positive implications for multinational companies. Others—for example, pressure on pricing and the rise of local champions—will have negative implications. In certain respects (including the bid to reconcile low-cost universal health-care coverage with rewards for innovation) the forces come into direct opposition. To paraphrase Vice Premier Li Keqiang, reform of the country's health-care system has entered “uncharted waters.”<sup>1</sup>

### **The forces behind the boom in China's health-care market**

Health-care companies have celebrated China's robust market in recent years; it's a bright spot compared with the lackluster conditions they contend with in many other countries.

What a difference just a few years can make. Strong growth in the health-care sector is fueled by favorable demographic trends, continuing urbanization, an increasing disease burden, the overall economy's healthy expansion, and income growth (which encourages greater awareness of and access to treatments). It also reflects the government's focus on health care as both a social priority (as seen in a 2009 health-care reform) and a strategic one (in the 12th five-year plan's impact on the biomedical industry). Health-care expenditures have more than doubled—from \$156 billion in 2006 to \$357 billion in 2011— inching closer to 5 percent of the country's GDP. From pharmaceuticals to medical devices to traditional Chinese medicine, almost every health sector has benefited (exhibit).

The size and sustained momentum resulting from these shifts have given China new prominence for multinational health-care companies. For several leading pharma players, such as Bayer HealthCare and Novo Nordisk, the country already ranks among the top three markets in total contribution to revenues. Others expect China to reach that ranking by 2015 and already see it as their number-one contributor to absolute revenue growth.

<sup>1</sup>Li Keqiang made this remark during the Chinese national conference on the deepening health-care reforms as China's vice premier and leader of its overall agenda for health-care reform.

Exhibit

Health care expenditures in China have more than doubled since 2006, benefiting virtually every related sector.

		2006	2011
<b>Overall</b>	Total health care expenditures	\$156 billion	\$357 billion
	Per capita health care expenditures	\$119	\$261
	Population with health insurance	43%	>95%
<b>Pharmaceuticals</b>	<b>Market</b>		
	Size <sup>1</sup>	\$27 billion	\$71 billion
	Global ranking	9	3
	Combined revenues of top 10 pharmaceutical multinationals	\$4 billion	\$10 billion
	Number of sales reps from top 10 pharmaceutical multinationals	6,000	>25,000
<b>Other categories</b>	Traditional Chinese medicine, market size <sup>1</sup>	\$6 billion	\$13 billion
	Vaccines, market size <sup>1</sup>	~\$1 billion <sup>2</sup>	~\$2 billion
<b>Medical products</b>	<b>Market</b>		
	Size <sup>1</sup>	\$8 billion	\$20 billion
	Global ranking	6	3

<sup>1</sup>Value measured at ex-manufacturer price—ie, excluding costs such as shipping and taxes.

<sup>2</sup>2007 data.

Source: *China Health Statistics Yearbook* (2006 and 2011), China's Ministry of Health; Chinese Pharmaceutical Association (CPA); R&D-based Pharmaceutical Association Committee (RDPAC); Southern Medicine Economic Research Institute, China's State Food and Drug Administration; McKinsey analysis

Medical-device and -equipment companies, such as GE Healthcare and Philips, have built China businesses that now boast annual revenues of more than \$1 billion and are still expanding rapidly.

This steady growth of China's market stands in stark contrast with those of the United States, Japan, and Western Europe. These areas have traditionally been the focus of health-care companies but are less attractive now that the industry must contend with declining R&D productivity, the ongoing expiration of patents for many blockbuster drugs, and significant cost pressure as governments clamp down on spending. Especially in

the United States and Europe, many companies have resorted to rounds of downsizing, shrinking their R&D and manufacturing footprints, as well as their commercial operations.

It is therefore not surprising that multinationals are ramping up their investments in China, tapping into the unmet needs of its huge population, its manufacturing and emerging R&D ecosystem, and the government's support for the biomedical industry. Early movers (for example, AstraZeneca) started investing heavily more than a decade ago. Then other large global pharma companies, including GlaxoSmithKline, Eli Lilly, and Merck embraced the China growth story, significantly increasing their commitments over the past five years. Since 2006, 13 of the top 20 pharma companies have established R&D centers in China, and several have announced major manufacturing investments.

On the commercial side, China's ten largest multinational pharma players now field a total sales force numbering more than 25,000, even as they have downsized sales forces in the United States and Europe. According to recent research by Cegedim, China has now overtaken the United States in the total number of pharma medical sales reps employed by multinationals. Medical-device companies are not far behind and on some dimensions even lead the way: for example, Covidien, GE Healthcare, Johnson & Johnson, and Medtronic have been setting up or expanding R&D centers and manufacturing sites, as well as pushing ambitious strategies to expand their market reach.

China's rise to prominence has prompted organizational changes, too. A few companies, such as Baxter, have moved their Asia-Pacific regional headquarters to Shanghai. Some have even relocated to China the global headquarters for select units—GE's X-ray business and Bayer's general-medicine business, for example. Roche plans to make Shanghai one of three global strategic-operations centers, alongside Basel and San Francisco. Many companies have changed their reporting lines so that China operations report directly to the chief executive or to the global head of pharmaceuticals or medical devices.

Further cementing the new status of China, it is the focus of presentations by multinationals to the health-care investment community. Executives are keen to promote the China success story as a counterpoint to flat sales and declining investments in Europe and North America.

### **Time for a reality check?**

China is still in the early stages of its economic and social development. Extraordinary boom times have been the backdrop for significant investment. But at this point, multinationals should be prudent, stepping back and considering the forces that may influence the attractiveness of the China market in the years ahead.

Health-care reform is progressing, with significant government intervention in areas such as pricing. Competition from local companies is intensifying, and the pace of the nation's economic growth is easing. In this context, several questions arise. Will China deliver on

high expectations for growth? Are companies being too bullish? Are they investing at the right pace and scale? Have they adapted their operating models sufficiently to match local conditions? Have they identified and evaluated the many challenges ahead, and are they prepared to address them?

Overall, we remain optimistic about the outlook for health care in China. With expenditures projected to grow from \$357 billion in 2011 to \$1 trillion in 2020, it remains one of the world's most attractive health-care markets and offers by far the largest growth opportunity of all the big emerging economies. However, we believe that it will become more difficult, even for large-scale operators, to compete. We anticipate an increasing divergence between winners and laggards, and it will become harder for late entrants to gain traction.

In coming years, China's health-care market will be shaped by three macrotrends: continued economic and demographic development, further health-care reform, and the direction of the 12th five-year plan. Here we look at each in turn.

### **Economics and demographics: Strong support for volume growth**

Growth in demand for care will remain strong for several reasons. First, chronic conditions like diabetes and hypertension are proliferating rapidly as the population ages, many more people move to cities, and lifestyles change. The *New England Journal of Medicine* reported in 2010 that there were already 92 million diabetic patients and a further 150 million prediabetics in China. By comparison, the United States has almost 27 million diabetic patients.

Also, the proportions of urban and elderly in the population are predicted to go on increasing. The McKinsey Global Institute (MGI) projects that 61 percent of China's inhabitants will live in urban areas by 2020, up from 52 percent in 2012, as 142 million people migrate from the countryside to cities. The population of people aged 65 and older will almost double by 2030, to 223 million, from the current 122 million.

Another basis for growth in the demand for care is increasing incomes and more extensive insurance coverage, both of which will steadily improve patients' ability to pay. The urban middle-class population (defined by MGI as households with annual disposable income ranging from \$7,000 to \$27,000) is projected to increase from 29 percent of urban households in 2005 to 75 percent in 2020, and the upper-class group from 1 percent to 7 percent.

The third basis for growth is that many highly prevalent and burdensome conditions (such as cancer, depression, and respiratory illness) remain underdiagnosed and undertreated in China. Better and earlier diagnosis, as well as higher rates of treatment and compliance

with therapies, will significantly expand the number of patients and improve the clinical benefits of drugs.

### **Health-care reform: A top national priority**

China's health-care reform began in earnest in 2009. This far-reaching transformation of the system is expected to be complete by 2020. The progress, already significant, is particularly impressive in areas such as the development of infrastructure in China's lower-tier cities and rural areas, as well as enrollments in insurance plans, through which more than 95 percent of the population now has some form of coverage.<sup>2</sup> Several key aspects of reform are still bogged down: programs such as the Essential Drug List and the overall reform of public hospitals (for example, funding mechanisms). In a speech delivered in late 2011, Vice Premier Li Keqiang underscored the government's commitment to bolstering health-care reform, whose goal is "to establish a universal basic health-care system providing safe, effective, convenient, and low-cost health-care services by 2020." However, he acknowledged the challenges of the process, particularly for reforming public hospitals.

We believe that the next stage of reform could have a major impact on aspects of the health-care system, ranging from insurance coverage and market access to the development of the primary-care infrastructure. Here we examine each aspect.

#### [Insurance coverage: Broader, but how deep can it reach?](#)

In a few short years, China's government insurance programs have extended coverage to more than 95 percent of the population. Coverage remains basic, however. One-third of the country's provinces, for example, still do not provide universal outpatient coverage in basic medical insurance. Of those that do, the coverage provided is limited—in Shanghai, outpatients are responsible for 30 to 50 percent copayments and a \$240 deductible. Patients' out-of-pocket expenses remain high overall as a result of strict reimbursement caps and low or no reimbursement for expensive drugs.

Existing insurance plans are already under pressure as provinces cope with a mismatch between contributors and noncontributors, as well as the demand that a rapidly aging population is placing on medical resources. For example, the Shanghai government capped (at 7 percent) the year-on-year increase in funding for basic medical insurance in 2011 and has limited pharmaceutical spending as a percentage of that funding to 42 percent, down from 45 percent in the previous year. This is particularly striking, since Shanghai is one of the nation's wealthiest cities. Similar policies aimed at containing rapidly rising

<sup>2</sup>According to official government statistics, public health insurance covered 95 percent of the population by the end of 2011; the actual figure is probably lower because some people with multiple types of public health insurance would have been counted more than once.

health-care costs are being introduced around the country, so pharmaceutical companies sometimes find that their drugs are restricted from time to time when hospitals manage their own limited budgets.

Now that the national government has achieved remarkable progress in the breadth of insurance coverage, the focus will probably shift to improving the quality of its provision to patients. Reimbursement copays will continue to decrease while annual caps continue to rise. To further reduce inpatient copays and raise the annual cap, for example, central-government funding for the New Rural Cooperative Medical Scheme, which covers more than 800 million people, will increase to \$40 per person annually, from \$20. Outpatient coverage will also improve: more provinces are going to introduce universal outpatient coverage and more diseases will be included in reimbursement programs for treating outpatients with chronic diseases. As in countries around the world, however, increased government contributions to health-care spending will lead to a greater focus on controlling its growth and increasing the levels of intervention at various points of the health-care system.

#### Market access: Getting more complex

Multinationals must contend with a market-access environment that is becoming more complex. Throughout the whole range of commercial activities—product registration, reimbursement, tendering, pricing, and distribution—China’s market-access picture shows increasing fragmentation. Access conditions vary at the provincial, the city, and even the hospital level. This problem affects pharma and medical-product companies alike.

For pharma companies, the increasing complexity and uncertainty stem from growth in the number of reimbursement categories and continued government pressure to reduce prices and ease the burden on patients. Most of these companies’ product portfolios include plenty of drugs on the all-important National Reimbursement Drug List, and some have quite high exposure on the Essential Drug List. Many observers expect contributions from new drugs to increase significantly by 2020. Twelve of the top 15 multinational pharma companies derive more than half of their sales in China from drugs on the current National Reimbursement Drug List; for 6 of the top 15 pharma companies, sales of molecules on the Essential Drug List account for more than 10 percent of sales in China. These two categories of drugs (and new ones) will experience different pricing trends. Medicines on the National Reimbursement Drug List will face continued pressure on the price premiums granted to products from multinational companies. The Essential Drug List will expand in scope. Reference pricing could affect the prices of new drugs at launch.

As for companies that make medical products, uncertainties result from more stringent product-registration processes, changes in the tendering process, the fragmentation

of reimbursement, and increased scrutiny of pricing. Tendering, for example, which historically was quite fragmented, has recently been moved to the provincial level, with a readily observable impact. In 2011, Guangdong and Henan held provincial tenders that led to price cuts of 20 to 30 percent for several categories of medical products. The Beijing government is said to be aiming for 20 to 30 percent price reductions on high-value consumables, such as drug-eluting stent products.

China's system of service charges and reimbursements adds to the complexity. Policies in these areas, formulated and applied at the local level, will probably remain in force for a while. Usage fees for an energy-based surgical-device procedure range from 200 renminbi (\$31.75) in Yantai to 30 renminbi in Changzhou, for example, and in Shenyang the process is not chargeable. Similarly, reimbursement for medical products varies by city, and the processes for obtaining it vary significantly at the local level. The decentralized reimbursement process can involve even hospital-specific policies. At the beginning of 2012, for instance, Xuanwu Hospital was the only one in Beijing that had managed to secure reimbursement for computer-tomography-guided radio-frequency ablation.

#### Primary-care infrastructure: Quickly emerging

A chronic imbalance of resources has long been a problem in China's health-care system. The largest class-3 hospitals in big cities (about 1,350 institutions in all) tend to have the highest-quality physicians and equipment, as well as the lion's share of patient flows. By contrast, grassroots facilities, such as urban community-health centers and county hospitals, tend to be underdeveloped, poorly funded, and disconnected from larger hospitals. This gap undercuts the strategic goal of broad and effective care. Patients, regardless of the severity of their illnesses, prefer to visit the best hospitals in the largest cities; this causes overcrowding at the big hospitals and underutilization at the grassroots facilities.

One major goal of health-care reform is therefore to develop a primary-care infrastructure that includes the development of community-health centers and community-health stations, combined with a three-tier rural medical network comprising county hospitals, township health centers, and village clinics. The government also aims to improve the service standards and quality of primary-care institutions (mainly through the education and training of general practitioners) and to establish a two-way referral system between primary-care facilities and hospitals.

Reform efforts to date have included the significant development of the grassroots infrastructure: the number of urban community-health centers and community-health stations increased by 20 percent in 2010, for example. Affluent regions are experiencing even faster development—for instance, on average Zhejiang and Beijing have, respectively,



168 and 119 community-health centers and community-health stations per million urban residents, compared with just 17 in Guangxi and 22 in Yunnan. This gap will probably shrink as underdeveloped regions invest.

In addition, the government has been working to improve the quality of physicians at primary-care institutions. The central government's Health Care Reform Office, for example, recently announced that on-the-job training of urban community-health physicians is being rolled out across the country and that 5,000 physicians are being trained to support the central-western region's township-health centers. These improvements will of course take time, so the significant gap in quality between grassroots facilities and large hospitals will persist for a while.

The government is wasting no effort to build up primary-care institutions and give patients more incentives to use them. But the initiative's success will ultimately rest on improving the quality of physicians and other medical personnel, the availability of effective drugs that patients can trust, and the creation of integrated networks of primary and tertiary institutions to manage patient flows effectively. Clearly, these developments will take some years to play out.

### **The 12th five-year plan: The biomedical sector as a strategic industry**

In the 12th five-year plan, which the State Council published in March 2011, China's government identifies seven strategic industries. One of them is the biomedical industry, broadly defined as including biologics and small-molecule pharmaceuticals and vaccines, as well as medical devices, diagnostics, and even traditional Chinese medicine. Collectively, these seven industries are expected to account for 8 percent of China's GDP by 2015 and for 15 percent by 2020, up from 5 percent in 2010. Historically, government backing has significantly accelerated the growth of designated strategic industries, such as automotive. The central government is actively committed to developing the biomedical industry, and local governments are quickly following suit, so the sector is poised for rapid growth over the coming decades.

Since the State Council published the plan, various ministries—including the Ministry of Health, the Ministry of Science and Technology, and the Ministry of Industry and Information Technology—have contributed their own 12th five-year plans to develop the biomedical industry. Additional detailed plans are expected. Collectively, these ambitious proposals assume that China will have the ability to climb the value chain in manufacturing and R&D at a rapid pace.

Here we review the ways these new policies could play out in the biomedical industry.

#### Provincial governments will play major roles

While the central government can provide broad direction and support for policy changes, the actual implementation of far-reaching reform hinges on the actions of the provinces, where local investments and ambitious local plans are proliferating. This activity will probably lead to a significant misallocation of resources and to the emergence of a few attractive biopharmaceutical-expertise clusters that will have a significant impact on the industry.

#### Local companies will probably move up the value chain

The critical word in the plans released so far is *upgrade*. New policies are stretching local companies by raising, for example, manufacturing standards: by 2016, all manufacturing lines must fully comply with the standards published in 2011. The government also is encouraging rapid consolidation among the thousands of businesses competing today: it hopes that the top 100 pharmaceutical companies will account for 50 percent of total pharma sales by 2015 and the top ten wholesalers for 95 percent of drug distribution. The national government, also nurturing the emergence of large generic-drug companies, is pushing locals to partner with multinationals, to invest more in R&D, and to develop differentiated businesses in generics or biosimilars.

Local competitors will probably go on trying to capitalize on favorable government policies. Only a few will make serious attempts to expand outside China. Substantial resources, flawless execution, and great persistence will be needed for any of these companies to become true global contenders.

#### Multinationals will team up with local companies

The government's push for health-care reform and 12th five-year plan, combined with unfavorable reimbursement levels for premium products and cost pressures at the largest hospitals, have prompted multinationals to look more closely at deepening or expanding their presence in China through partnerships and acquisitions. In this way, they hope to compete in the lower-tier segments and to capture productivity gains.

To benefit from the experience of local companies, several multinationals have teamed up with them in pharmaceuticals, consumer health, vaccines, and medical devices. Pfizer, for instance, is taking a three-pronged approach to orchestrating its expansion into the broader market. Pfizer is planning a joint venture with Hisun, a manufacturer of active pharmaceutical ingredients, and will tap into that company's generic-drug portfolio and low-cost manufacturing and R&D capacity. It has also established a strategic partnership with Jointown Pharmaceutical Group, China's third-largest distributor, to

expand its coverage of county hospitals and its reach in over-the-counter products. Pfizer is also pursuing business opportunities with Shanghai Pharma, including a \$50 million investment in the Chinese partner's initial public stock offering.



Ultimately, the biomedical plan's success will depend on the national government's ability to align the interests of many different stakeholders and to foster a policy environment that better supports innovation and quality, without resorting to protectionist measures assisting local champions. Progress could prove underwhelming in some aspects of the plan (for instance, fostering real innovation), but China is playing a long-term game. We anticipate that the country's current health-care moves will extend far beyond the time line of the 12th five-year plan. Furthermore, the implications of some market developments (for example, the emergence of a vaccine or biosimilars industry) could reach far beyond China, given its scale and speed of development.

China remains a bright spot in the global outlook for health care, but the bar to effective competition has been raised by increased government intervention and business complexity, as well as intensifying local competition. To succeed at scale, multinationals will want to increase their investments across the value chain, step up their core capabilities, and explore creative ways of reaching new customer segments through partnerships. The right combination of these methods will allow multinationals to navigate the uncharted waters of health care in China successfully. [o](#)

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