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Fortune Favors the Bold
Unlocking the future of China's Pharmaceutical market

Foreword

As Deloitte reported in The Next Phase: Opportunities in China's Pharmaceuticals Market (November 2011), China will soon be the Asia Pacific region's leading market for health care — a widely anticipated result given the country's unrelenting socioeconomic growth trends. However, the past 24 months have seen a rapid acceleration in the development of the life sciences and health care market in China. With this acceleration comes rising uncertainty about where the market is headed and how it will impact the companies that operate within the health care system. This uncertainty comes from the unprecedented demographic changes and continued experimentation from the government as it seeks to expand the quality of care while also controlling expenditures.

Many pharmaceutical companies are now looking at China's health care market and asking themselves, where next? The opportunities that drive growth are less clear now than in the previous decade and the risks in the market are substantially higher than ever before. Finding a path forward that delivers the returns and performance companies want will not be easy in this environment.

This report explores the key events of the past 24 months in the health care market and the four key questions facing pharmaceutical companies as they think about their future in China. Moving forward, companies must ask themselves:
1. How do we evolve our customer model in our core markets?
2. Can we efficiently and cost-effectively expand to the lower-tier cities?
3. How can we ensure market access at the provincial and hospital levels?
4. How can we participate in and anticipate the evolution of the private health care market?

The answers to these questions will shape the success of pharmaceutical companies moving forward and determine who wins and who loses in China's health care market. The opportunity is large but so is the challenge.

We believe that fortune favors the bold in China and those companies who take decisive action today will be the ultimate winners, while companies who seek gradual change will be left behind as the market passes them by.

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Fortune Favors the Bold

China's health care system has seen rapid development since 2009 when the government started an ambitious reform program to expand access, increase affordability and improve quality of care. The past two years have seen accelerated change as the demand for, and delivery of, health care services evolve, shaping both the industry and its players. This acceleration will only continue as government support and changing demographics and lifestyles combine to increase health care supply and demand (Figure 1). Rapid economic growth and expansion has slowed in China, and this, combined with the rapidly changing health care system is forcing companies — both domestic and multinational (MNCs) — to rethink the way they do business in the country.

Figure 1: Forces Shaping Health Care in China

For pharmaceutical companies in China, the question is not whether to change, but when to change. Companies that act early and explore new models and opportunities will succeed, while those who wait will be left behind.

This paper explores China's pharmaceutical industry in depth, examining key events shaping the market and the decisions that pharmaceutical companies need to make as they seek to meet the needs of patients, payers and the government.

Fundamental change in health care demand

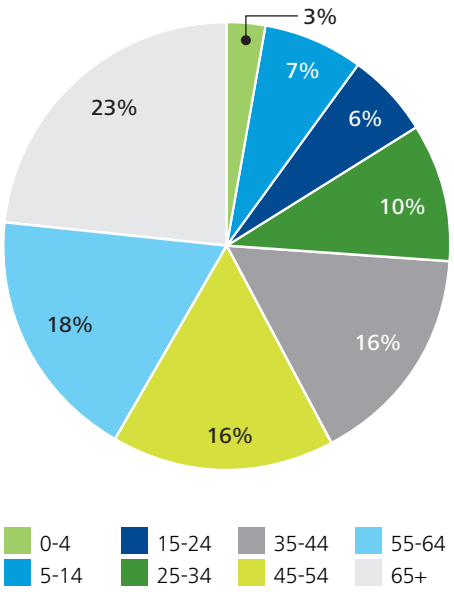
Three major trends will drive a rapid increase in the demand for health care in China — a rapidly aging population, increasing urbanization and westernization of lifestyles and increasing wealth. These trends will also change the type of care needed as the population disease burden shifts from acute diseases such as influenza to chronic diseases such as diabetes. These changes will dramatically propel health care demand in China, making it the second largest worldwide by 2015, in terms of service expenditure and easily the largest in number of patients served annually.

A country of elders

People over the age of 65 currently represent 8.87% of China's population[1], and are projected to reach 11.92% in 2020[2]. As a result, on-going requirements for elder-care services will account for nearly 23% of all health care expenditures in China (Figure 2). The expenditure is projected to rise to more than 50% by 2020 as the average elderly person consumes 3-5 times more health care resources than a younger person.

[1] National Bureau of Statistics of China, Sixth National Population Census of the People's Republic of China, 2010.
[2] National Bureau of Statistics of China.

Figure 2: Health Care Expenses by Age Group



Source: National Bureau of Statistics of China, State Development Research Institute

The nation's aging will shape care delivery within the health care system. Elderly patients require a substantially different type of care than younger populations, often needing long-term, chronic support versus the more acute care seen in younger patients.

A nation of cities

China's rate of urbanization — from 36% of people residing in urban areas in 2010 to 52.6% in 2012 — is unprecedented. The government hopes to accelerate this trend and reach 75% urbanization over the course of the next 20-30 years[3].

As the population has urbanized and modernized, its lifestyle more closely resembles the western world, including a meat-heavy diet, higher prevalence of smoking and increasingly sedentary, office-based lifestyle.

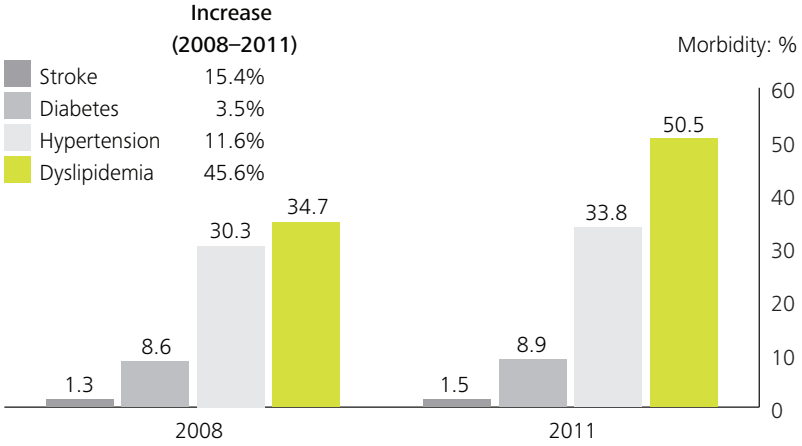
Consequently, "lifestyle-oriented" illnesses are increasingly prevalent in China (Figure 3). In addition, these chronic diseases are rising at a rapid rate (Figure 4).

Figure 3: Ranking of Disease Mortality Rate and Health Care Consumption (2011-2012)

Disease Area	Rank of Mortality Rate in China (2011)	Rank of Health Care Consumption in China (2012)
Cardiovascular	2	2
Cerebrovascular	3	3
Respiratory	4	5
Endocrinology	N/A	7

Source: Ministry of Health, 2011 China Health Care Statistics Yearbook, 2011; Monitor Deloitte analysis

Figure 4: Morbidity of Selected Chronic Diseases in Beijing



Source: Health White Paper, Beijing, 2011

The continued rapid pace of urbanization and westernization will fuel an increase in the demand for health care resources, particularly at top-tier institutions, which are already seeing considerable strain on their ability to deliver care.

These trends will necessitate a change in the way care is delivered and managed across China as the health care system struggles to balance and manage the burgeoning patient population.

[3] Dongxing Security Research, Urbanized Tier 2-3 Cities Drive Real Estate Industry, 2010.

Rising middle class

China's economic ascent has seen a rapid increase in average incomes and the creation of a new middle class of citizens. China's average income in terms of purchasing power parity now exceeds $5,000 per year in GDP per capita[4], the point at which overall consumption tends to spike[5].

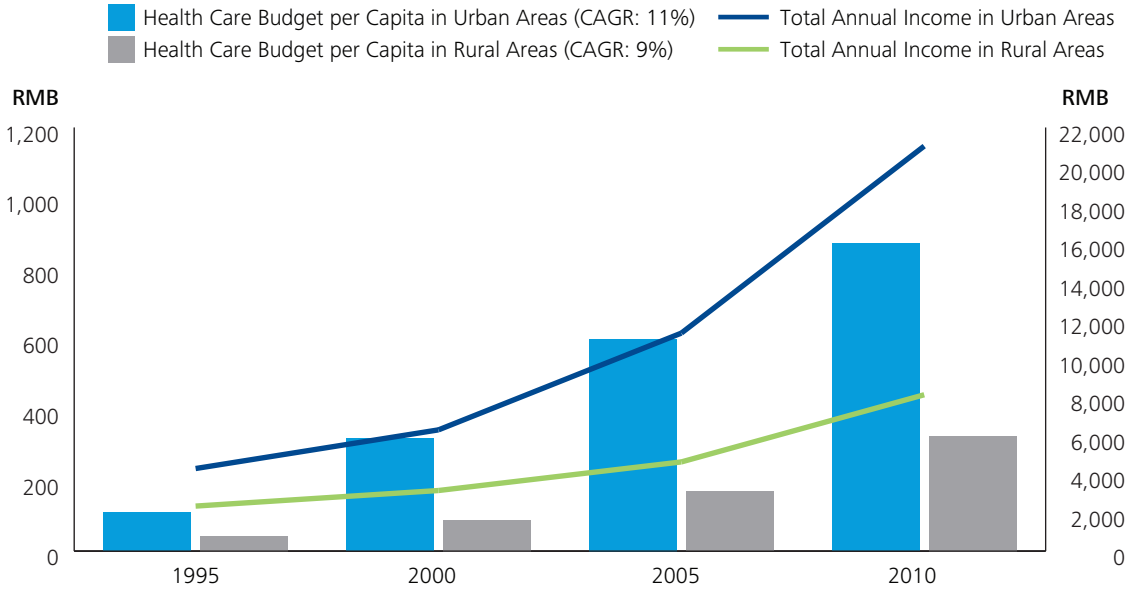
An increase in consumption is bolstered by this rapid rise in disposable incomes, nearly tripling between 2000 and 2012. As a result, health care budgets have increased roughly 200% among urban residents and 600% among rural residents since 2005 (Figure 5). While urban residents' spending power and access greatly outstrip those of their rural counterparts, both have experienced a well-documented rise in their ability to pay for health care.

Together, rural and urban dwellers are reshaping health care, demanding different types of care and expecting higher service quality from both public and private systems. Service quality and physicians' attitude is an increasing concern for patients (Figure 6)[6]. With rising living standards, patients expect health care services that require shorter waiting time, offer more privacy and open deeper medical communication with physicians[7].

Impact on health care demand

Health care in China is poised to move from a system that provides acute care to those who need it most — or are willing to wait for it — to a system that must support longer-term, higher-quality care for a larger proportion of the population. Rapid aging, urbanization and westernization along with rising incomes will force difficult decisions about how to deliver, and pay for, care in the coming years.

Figure 5: Health Care Budgets and Annual Income in Urban and Rural Areas (1995–2010)



Source: National Bureau of Statistics of China

[4] International Monetary Fund.
[5] World Bank and Credit Suisse estimates.
[6] Deloitte, 2011 Survey of Health Care Consumers in China: Key Findings, Strategic Implications, 2011.
[7] Monitor Deloitte internal research, high-income patient survey.

Figure 6: Patients' Dissatisfactions with the Current Level of Service from Hospitals

Availability	**32%**	of patients think local medical services cannot meet their needs
Accessibility	**45%**	of patients find waiting time before receiving health care service is unfavorable
Care Quality	**47%**	of patients believe hospitals are not patient-oriented

Source: Monitor Deloitte and Haoyisheng, Chinese Physician Survey (n = 1003), 2012

Reshaping the structure of the health care system

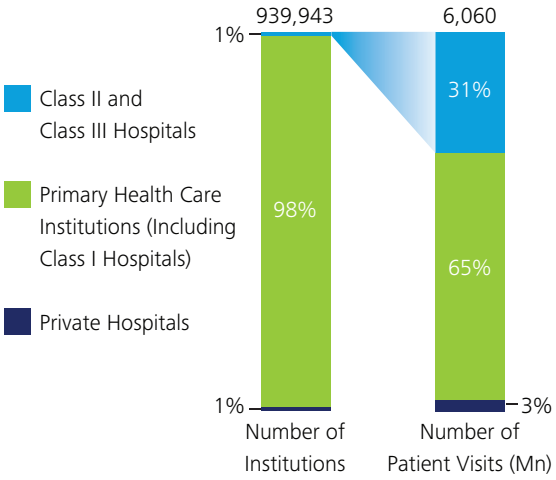
Attuned to increased demand and the changing nature of health care, China's government is working to reshape care delivery. Most recently, the government has moved to establish a viable primary care network, thus encouraging private health care while at the same time restraining the health care expenditure growth through innovative cost control mechanisms. These actions are shaping a health care delivery environment that will look radically different in 10 years.

Expanding the primary care network

Class II and III hospitals — defined as top-tier, medium to large-sized hospitals with bed capacities of over 100 and 500 beds, respectively — account for only 1% of health care institutions in China. However, as of 2012 they represented nearly 30% of patient visits as Chinese patients sought care at the best hospitals, regardless of the severity of their condition (Figure 7). This has created substantial strain on these hospitals and their staff, leading to long wait times, lack of care continuity and patient concerns about quality of care.

China's most recent long-term central policy planning — its 12th Five-Year Plan — showed disproportionate investment in primary care facilities and personnel to make basic medical care more widely available and to relieve the strain on top-tier hospitals. From 2010 to 2012, around 5,400 Community Health Centers (CHC) were established,

Figure 7: Hospital Utilization Comparison



Source: National Bureau of Statistics of China, China Statistical Yearbook 2012, 2012

outpacing hospital growth by 4%. The current plan targets 53,000 new CHCs by 2015[8,9,10].

Meanwhile, the government is making several practical investments to boost the number and quality of primary care practitioners available (Figure 8)[11,12]. These changes are expected to dramatically increase the number of visits to primary care facilities — which include CHCs, township health centers and village clinics — while easing the strain on top-tier facilities.

[8] General Office of State Council of the People's Republic of China, Five Key Implementation Plans of Health Care Reform, April 6, 2010.
[9] General Office of State Council of the People's Republic of China, Five Key Implementation Plans of Health Care Reform, February 7, 2011.
[10] General Office of State Council of the People's Republic of China, Five Key Implementation Plans of Health Care Reform, April 14, 2012.
[11] News reports on the topic of training for medical staff at grass-root hospitals.
[12] Zhejiang Bureau of Health, Suggestions to Second Young Physicians (New Attendants) to Serve at Grass-root Facilities, 2012.

Figure 8: Approaches to Boost Staff Capabilities at Primary Facilities

Seminars	"Secondment" of Urban Physicians	Subsidized Degree Programs
• Training on various topics, e.g., diagnosis and treatment, reimbursement policy, hospital management • Pilot region: National	• Send physicians at urban hospitals to primary care institutions for 2 years and make critical promotion • Pilot region: Zhejiang	• Local government subsidizes students pursuing medical degree as general practitioners • Pilot region: Zhejiang, Jiangsu, Jiangxi, Henan

However, these actions alone will not solve the problem of overcrowding in top-tier hospitals nor fully drive patients to lower-tier facilities. The government is experimenting with a number of new techniques. For example, 17 cities have implemented CHC and hospital alliances. Initial diagnosis will happen at primary care institutions and patients will only be referred to the hospital if the primary care physician cannot resolve the issue. In the hospital alliance cities, the increase in patient flow in CHC's reached 20% compared to 15% in hospitals from January to July 2012.[13]

Continued rationalization of demand across the health care system is expected in the future as more and more patients require chronic care, which is better suited to a primary care physician or non-specialist hospital than an acute or specialist facility. The primary care system will be critical to China's ability to provide care for a changing set of patient needs.

Expanding the private health care network

The government recently announced its intention to have 20% of health care delivery and 20% of health care bed facilities take place in the private channel by 2015, compared to 8% and 11% today, respectively. Significant expansion in both private delivery and private insurance are expected in the coming years. While the speed and scope of this change has yet to be determined, increasing investment in private health care delivery can already been seen.

Private health care facilities

Over the last six to twelve months, hospital acquisitions and openings have been announced by a wide variety of players. Domestic Chinese pharmaceutical distributors and manufacturers have been entering the private health care services market with acquisitions of single or multiple hospitals; foreign-owned hospitals are exploring joint-ventures or other methods to enter the Chinese market; and existing facilities in China are looking for ways to expand.

Commercial insurance

Two trends are shaping commercial insurance in China. First, the government has explored new ways of paying for health care including using public insurance premiums to pay for private health care insurance. At the same time, demand from individuals is increasing as wealthy Chinese citizens seek the best possible care for themselves and their family members.

[13] Ministry of Health reports.

In August 2012, the National Development and Reform Committee (NDRC) teamed up with five other central government agencies to roll out medical insurance for critical diseases for citizens under the Basic Medical Insurance (BMI), aiming for a total reimbursement rate of more than 50% for expenses beyond the current BMI coverage[14]. Local governments (provincial, city or county) were directed to purchase commercial insurance to manage the new coverage. By the end of October 2013, 23 provinces had selected 120 cities to pilot critical disease insurance[15]. For instance, Taicang county in Jiangsu Province has set forward an excellent example, one that benefited more than 20,000 patients in the county in the past year[16].

Premium insurance boosts to address high-end medical services needs

Though it is only a tiny portion of the commercial insurance market, premium health insurance is estimated to have a market size of 4 billion RMB in 2012 and will continue to grow at 25% annually. It charges premiums ranging from 15,000 to 200,000 RMB and aims to address growing needs for better environment and services, such as high-end private hospitals or VIP sections at leading public hospitals whose fees are far beyond the coverage of social insurance.[17] These policies cover full ranges of services from consultation, diagnosis to surgery and rehabilitation.

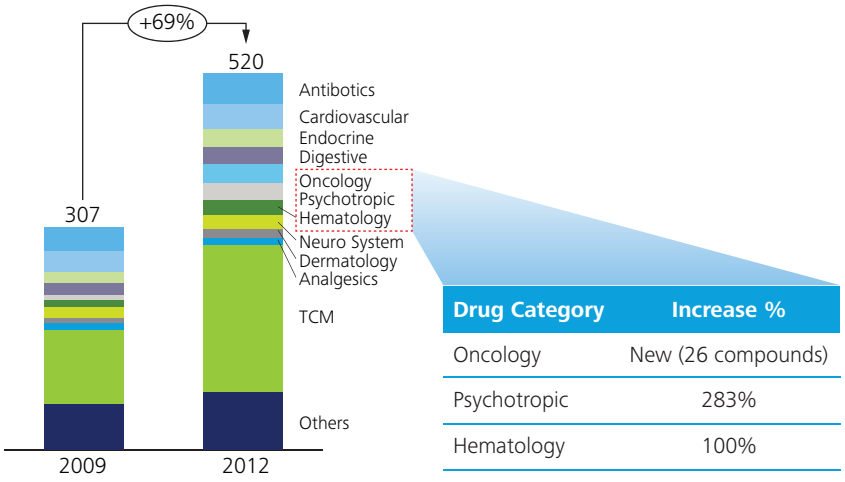
Private health care facilities and private health care insurance provide a release valve for pent-up dissatisfaction with public health care, allowing many patients with means to seek health care at a facility of their choosing. Private health care will most likely play a key role in helping the government continue to upgrade the overall quality of health care available in China.

Innovative payment mechanisms to curb rising expenditure

China's government has honed in on two cost-controlling methods. The first is continued and expanded use of the Essential Drug List (EDL) to help control the overall price and cost of therapeutics in China. The second is a series of more targeted experiments at the local or hospital level to control the total amount of therapeutics prescribed and correspondingly limit the total cost.

The 2012 EDL revision both increased treatment offerings within the BMI and improved the quality of enlisted drugs. The list expanded 64%, from 307 drugs to 520 drugs, enabling treatment in therapeutic areas that were previously unaffordable or underserved, such as oncology and hematology[18]. In addition, major branded generics and innovative drugs, such as Sanofi's Amaryl and Bayer's Kogenate, were added to boost the overall quality of EDL coverage, which previously focused on non-branded generics (Figure 9). This has both increased the total number of drugs available, but also — and more importantly — limited the cost of this increase to the health care system.

Figure 9: Comparison of Essential Drug List 2009 and 2012



Drug Category	Increase %
Oncology	New (26 compounds)
Psychotropic	283%
Hematology	100%

Source: Ministry of Health Essential Drug List 2009 and 2012

[14] National Development and Reform Committee, Guidelines for Insurance Coverage of Critical Diseases of Urban and Rural Residents. 2012.
[15] Ministry of Human Resources and Social Insurance, 2013Q3 Ministry of Human Resources and Social Insurance Working Situation and Plan for Next Steps of Work, 2013.
[16] Li Jianhua, et al., Insurance Brokerage, 2013.
[17] China Insurance Regulatory Commission.
[18] Ministry of Health, Essential Drug List, 2012 version.

These mechanisms shape the national environment for therapeutics cost and send strong messages that the government will continue to drive cost control for pharmaceuticals, aiming to improve coverage while maintaining or decreasing cost.

The government is also enacting a number of pilot programs to curb fast-rising health care expenditure[19]. The major experimental payment mechanisms are: Diagnosis Related Groups (DRGs), Total Budget Prepay and Capitation. The examples of pilot regions are listed in Figure 10[20,21,22,23,24].

Figure 10: Experimental Payment Mechanisms of BMI

DRGs	• City Med Insurance Bureau decides on the appropriate budget for a certain disease/condition — Pilot region: Beijing, Jiangsu
Total Budget Prepay	• City Med Insurance Bureau decides on the total annual budget allocated to each hospital — Pilot region: Shanghai
Capitation	• City Med Insurance Bureau decides on the appropriate budget to a person (per year, per episode, etc.) — Pilot region: Shandong, Tianjin

Source: Press releases

Together these cost-control mechanisms will shape the access environment for pharmaceutical companies, limiting both the prices they can expect to receive for therapeutics and their ability to create practical access at the local and hospital levels.

Impact on the structure of the health care system

The government will continue to reshape and restructure the way health care is delivered and paid for in China to address rapidly exploding demand and changing health care needs. These are only a few of the key events and policies enacted in the past 24 months, but they are among the most prominent changes to the system.

What does this mean for pharmaceutical companies?

The changing nature of health care demand and delivery in China is forcing companies to rethink the way they do business, particularly if they wish to continue their trajectory of rapid growth and expansion. The question facing pharmaceutical companies in China is not if they will have to change, but rather when they will change. Companies that seize an early opportunity will experience continued growth while those who wait will be forced to change later, and run the risk of being left behind as the market blasts past the old way of doing business. Pharmaceutical companies in China must ask four questions if they hope to keep driving growth:

1. How to evolve the customer model in top-tier markets to reflect the changing reality?
2. How to cost-effectively reach the next 1 billion patients in China?
3. How to evolve national and local market access strategies to achieve win-win outcomes with the government and other payers?
4. What can be done to leverage or address growth in the private health care industry in China?

Together, these four questions shape the pharmaceutical industry's future in China and provide a foundation for answering other outstanding questions, such as how to profitably establish a generics business or how to succeed in delivering traditional Chinese medicine.

Swift action and crisp decision making is needed to grasp these opportunities. Companies that fail to recognize the pace and speed of change risk being left behind, as an evolving system pushes past them.

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[19] General Office of the State Council of the People's Republic of China, Five Key Priorities to Reform the Health Care System, 2009 - 2012, 2009.
[20] Beijing Bureau of Human Resources and Social Insurance, Pilot Program of Diagnosis Related Group (DRG) Payment, 2011.
[21] Jiangsu Bureau of Human Resources and Social Insurance, Rollout of DRG Payment for Certain Diseases, 2012.
[22] Xu Huiyun, Yicai.com, Shanghai Pondering the Total Budget Control Mechanism, 2011.
[23] Tianjin Daily, Capitation in Tianjin for Diabetes Patients to Roll Out Next Year, 2013.
[24] China Medical Insurance, How to Optimize Capitation, 2011.

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