

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



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# 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.

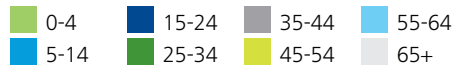
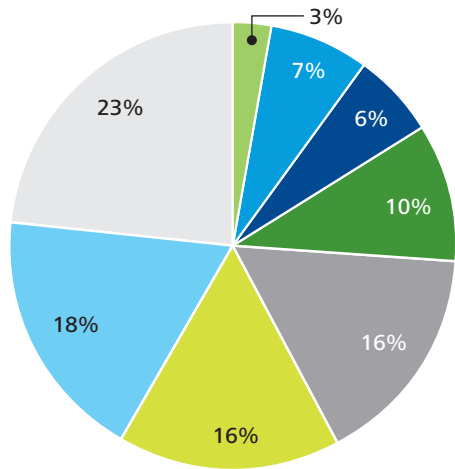
## A country of elders

People over the age of 65 currently represent 8.87% of China's population<sup>1</sup>, and are projected to reach 11.92% in 2020<sup>2</sup>. 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.

<sup>1</sup> National Bureau of Statistics of China, Sixth National Population Census of the People's Republic of China, 2010.

<sup>2</sup> 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<sup>3</sup>.

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.

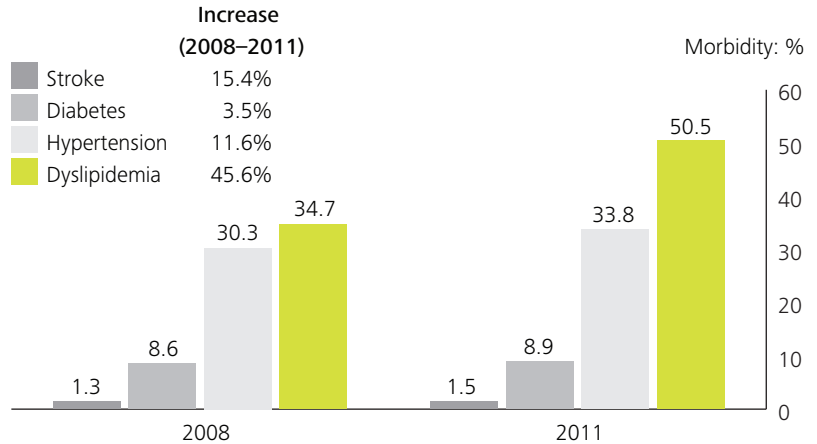
Consequently, "lifestyle-oriented" illnesses are increasingly prevalent in China (Figure 3). In addition, these chronic diseases are rising at a rapid rate (Figure 4).

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.

<sup>3</sup> 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<sup>4</sup>, the point at which overall consumption tends to spike<sup>5</sup>.

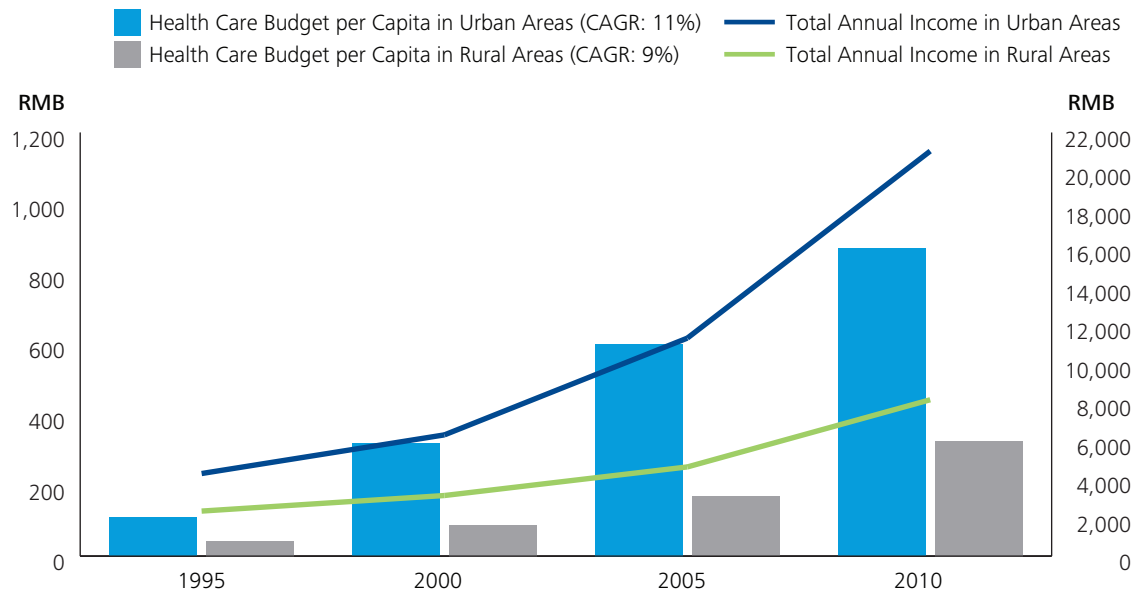
An increase in consumption is bolstered by this rapid rise in disposable incomes, nearly tripling between 2000 and 2012. As a result, health care budgets have increased roughly 200% among urban residents and 600% among rural residents since 2005 (Figure 5). While urban residents' spending power and access 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)<sup>6</sup>. With rising living standards, patients expect health care services that require shorter waiting time, offer more privacy and open deeper medical communication with physicians<sup>7</sup>.

### 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

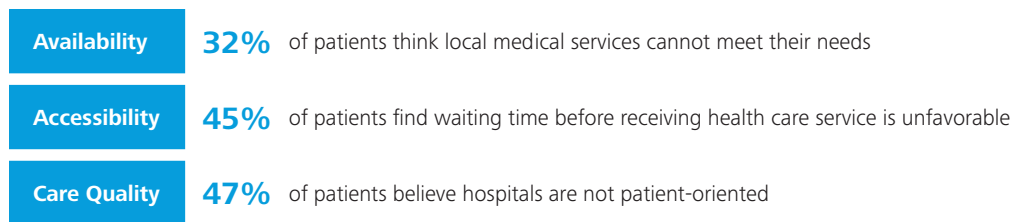
<sup>4</sup> International Monetary Fund.

<sup>5</sup> World Bank and Credit Suisse estimates.

<sup>6</sup> Deloitte, 2011 Survey of Health Care Consumers in China: Key Findings, Strategic Implications, 2011.

<sup>7</sup> Monitor Deloitte internal research, high-income patient survey.

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



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

**Reshaping the structure of the health care system**

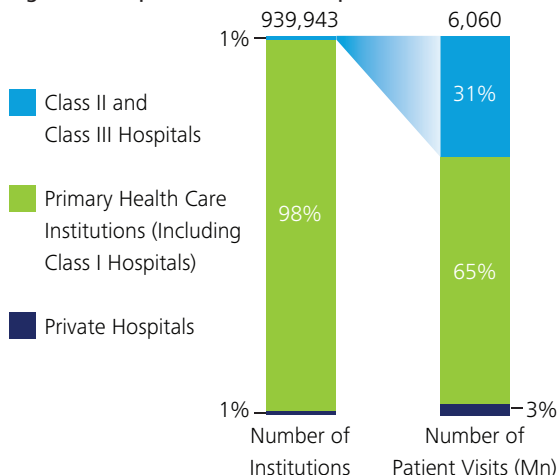
Attuned to increased demand and the changing nature of health care, China's government is working to reshape care delivery. Most recently, the government has moved to establish a viable primary care network, thus encouraging private health care while at the same time restraining the health care expenditure 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<sup>8,9,10</sup>.

Meanwhile, the government is making several practical investments to boost the number and quality of primary care practitioners available (Figure 8)<sup>11,12</sup>. 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.

<sup>8</sup> General Office of State Council of the People's Republic of China, Five Key Implementation Plans of Health Care Reform, April 6, 2010.  
<sup>9</sup> General Office of State Council of the People's Republic of China, Five Key Implementation Plans of Health Care Reform, February 7, 2011.  
<sup>10</sup> General Office of State Council of the People's Republic of China, Five Key Implementation Plans of Health Care Reform, April 14, 2012.  
<sup>11</sup> News reports on the topic of training for medical staff at grass-root hospitals.  
<sup>12</sup> 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
<ul style="list-style-type: none"> <li>• Training on various topics, e.g., diagnosis and treatment, reimbursement policy, hospital management</li> <li>• Pilot region: National</li> </ul>	<ul style="list-style-type: none"> <li>• Send physicians at urban hospitals to primary care institutions for 2 years and make critical promotion</li> <li>• Pilot region: Zhejiang</li> </ul>	<ul style="list-style-type: none"> <li>• Local government subsidizes students pursuing medical degree as general practitioners</li> <li>• Pilot region: Zhejiang, Jiangsu, Jiangxi, Henan</li> </ul>

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.<sup>13</sup>

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 be 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.

<sup>13</sup> 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<sup>14</sup>. 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<sup>15</sup>. 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<sup>16</sup>.

### 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<sup>17</sup>. These policies cover full ranges of services from consultation, diagnosis to surgery and rehabilitation.

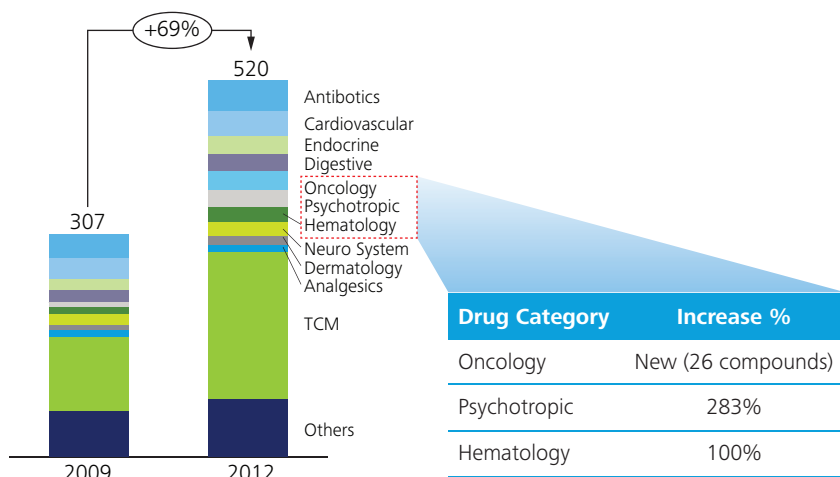
Private health care facilities and private health care insurance provide a release valve for pent-up dissatisfaction with public health care, allowing many patients with means to seek health care at a facility of their choosing. Private health care will most likely play a key role in helping the government 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<sup>18</sup>. 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



Source: Ministry of Health Essential Drug List 2009 and 2012

<sup>14</sup> National Development and Reform Committee, Guidelines for Insurance Coverage of Critical Diseases of Urban and Rural Residents. 2012.  
<sup>15</sup> 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.  
<sup>16</sup> Li Jianhua, et al., Insurance Brokerage, 2013.  
<sup>17</sup> China Insurance Regulatory Commission.  
<sup>18</sup> 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<sup>19</sup>. 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<sup>20,21,22,23,24</sup>.

**Figure 10: Experimental Payment Mechanisms of BMI**

<b>DRGs</b>	<ul style="list-style-type: none"> <li>• City Med Insurance Bureau decides on the appropriate budget for a certain disease/condition — Pilot region: Beijing, Jiangsu</li> </ul>
<b>Total Budget Prepay</b>	<ul style="list-style-type: none"> <li>• City Med Insurance Bureau decides on the total annual budget allocated to each hospital — Pilot region: Shanghai</li> </ul>
<b>Capitation</b>	<ul style="list-style-type: none"> <li>• City Med Insurance Bureau decides on the appropriate budget to a person (per year, per episode, etc.) — Pilot region: Shandong, Tianjin</li> </ul>

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.

<sup>19</sup> 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.

<sup>20</sup> Beijing Bureau of Human Resources and Social Insurance, Pilot Program of Diagnosis Related Group (DRG) Payment, 2011.

<sup>21</sup> Jiangsu Bureau of Human Resources and Social Insurance, Rollout of DRG Payment for Certain Diseases, 2012.

<sup>22</sup> Xu Huiyun, Yicai.com, Shanghai Pondering the Total Budget Control Mechanism, 2011.

<sup>23</sup> Tianjin Daily, Capitation in Tianjin for Diabetes Patients to Roll Out Next Year, 2013.

<sup>24</sup> China Medical Insurance, How to Optimize Capitation, 2011.

# Rethinking the Customer Model

Success in top-tier cities like Beijing and Shanghai has been the primary revenue driver for most multinational pharmaceutical companies operating in China. However, over the past 18-24 months, continued efforts to implement cost control measures, combined with a shifting focus to evidence-based medicine, have slowed the growth of branded generics in these markets.

As the market shifts, companies must rethink their existing high-cost, high-touch, sales rep-supported model and move toward an approach that is balanced across functions. Moving forward, the market will demand balanced, scientifically-driven dialogue that is supported by practical, real-world evidence in China. Companies will have to adapt their customer model to reflect new realities. To succeed, they will need to invest in the capabilities and performance of non-sales functions moving forward.

## Growth dynamics in top-tier cities are shifting

Growth drivers in upper-tier markets are rapidly shifting, challenging companies' ability to maintain historical growth rates. Factors that are acting as a drag on growth include:

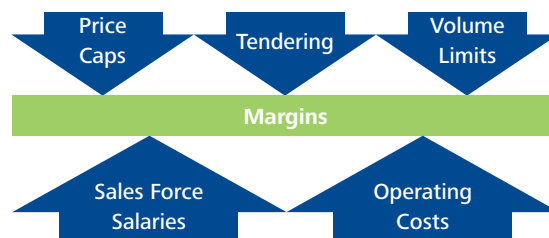
1. Reduction in gross margins through pricing pressure and cost increases
2. Changing physician and patient dynamics
3. Broadening of key stakeholders in the market

These changing dynamics threaten MNCs' reliance on the originator premium (pricing premium allowed by the government for branded generics with expired patents) and a rep-driven model to drive growth and profitability, leaving many companies to ask, "How do we maintain growth in the top-tier markets?"

## Reduction in gross margins through pricing pressure and cost increases

Companies are facing significant challenges at both the top and bottom line of their businesses. From a topline perspective, companies are dealing with pricing restrictions, volume limits and more challenging tendering processes, all of which limit their ability to grow revenues (Figure 11). On the cost side, companies' rising sales force compensation and overall operating cost increases are pressuring gross margins.

Figure 11: Overview of Pressures to Drug Gross Margin

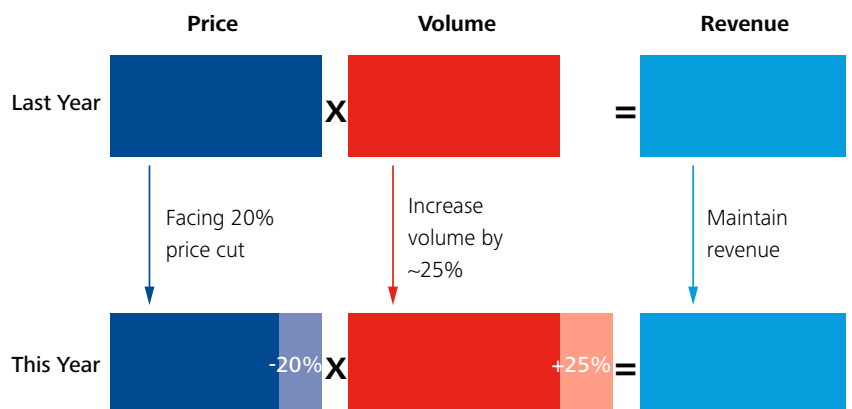


## Increasing pressure on topline growth

As we have seen, the Chinese government is exploring multiple policy initiatives to control both the cost and the volume of prescribed products. Among the primary constraints have been the expansion of the EDL and NDRC price cuts, changes in the tendering process and increased use of volume-based capping to control overall costs.<sup>25</sup>

A company facing a 20% price cut across the board would have to increase volume by approximately 25% to simply maintain its performance from the prior year (Figure 12). To realize 20% growth, or growth in line with the overall market, a company would have to sell 50% more prescriptions.

Figure 12: Illustration of Price and Volume Adjustment Under Price-cut Scenario



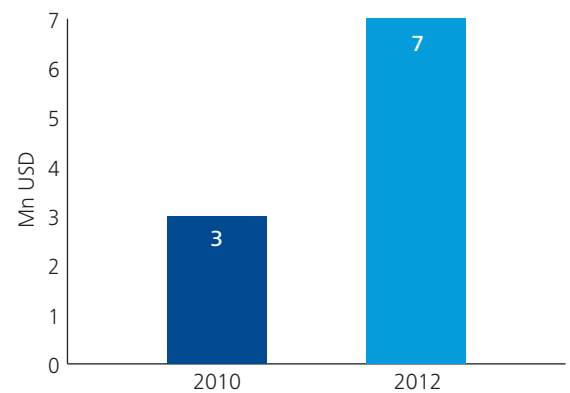
<sup>25</sup> National Development and Reform Commission press releases.

The pricing challenge has been exacerbated by limits to the number of brands that can be listed within a given province or hospital. As a result, losing a single tender for a large hospital can materially impact the growth of a brand.

In many top-tier markets, companies are beginning to face strict caps on the volume of products that can be prescribed in a given hospital as prescription caps are being used to control overall expenditures. Therefore, even if a company succeeds in winning a tender, it may face significant volume restrictions at the hospital level.

These limits combined have constrained the growth of the pharmaceutical market in the top tier, with estimated sales growth slowing to below 15%.

Figure 13: Total Cost of a 100-Person Sales Force



Source: Monitor Deloitte interviews and analysis

“It looks like we’re having a good start to the year, but then in the third and fourth quarter our sales drop-off dramatically as the volume caps kick-in.”

— Executive from a multinational pharmaceutical company in China

#### Rising costs are compounding pressure on price and volumes

Companies are seeing operating costs rise across the board, most noticeably in compensation for sales representatives. The fully-loaded average cost (including salary and overhead costs) per sales rep in Tier 1 cities is between 350,000 to 500,000 RMB<sup>26</sup>. For a typical high-investment brand, the cost can exceed \$7 million for a 100-person sales force (Figure 13), up from just \$3 to 4 million as recently as 2010<sup>27</sup>.

Other operating costs are rapidly escalating as the regulatory and compliance requirements for operating in China increase. The addition of a stronger medical field force, the challenges of complying with increased requirements on pharmacovigilance and increased regulatory and administrative burdens are mandatory cost components that materially increase the cost of doing business in China.

#### Changing physician and patient dynamics

As the Chinese health care system in upper-tier markets matures, the needs and interests of its physicians have evolved correspondingly. Physicians are under substantial pressure to maximize their patient-facing time, provide better service to patients and play a larger role in controlling health care costs. As a result, demands on physicians’ time have escalated, making doctors less willing to meet with sales reps, let alone grant reps the time to fully explain a product to them. Evidence of this is provided from a survey of physicians conducted jointly by Monitor Deloitte and Hao Yi Sheng (a leading online physician community) in 2012, which revealed a number of important trends in physician behavior in China’s major cities. One of the most striking facts from this report is that 74% of physicians preferred not to interact with sales reps face to face (Figure 14).

<sup>26</sup> Monitor Deloitte interviews and analysis.

<sup>27</sup> Monitor Deloitte interviews and analysis.

**Figure 14: Physician Attitude Towards Company Sales Reps**

- 68%** Rank sales reps as least preferred information source
- 55%** Consider sales rep visits to be ineffective
- 74%** Prefer non face-to-face interaction with reps

Source: Joint Survey by Monitor Deloitte and HaoYiSheng.com, 2012

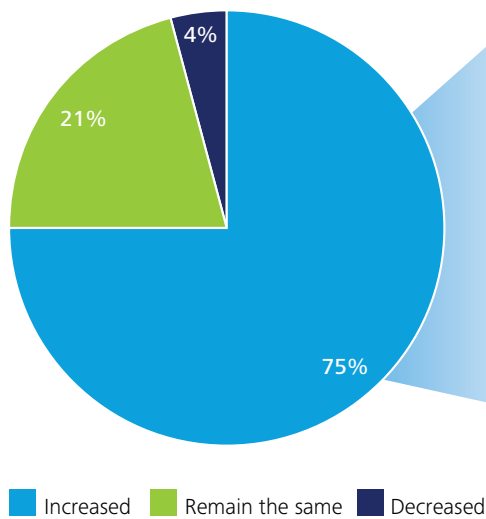
In fact, the survey indicated physicians felt that reps were the least trusted source of information about a pharmaceutical product. While details varied, the survey showed physicians are rapidly adopting emerging technologies such as mobile applications, discussion communities, real-time connections to their peer network and other channels as their most trusted and frequented sources of medical information. These changing dynamics limit a sales rep’s ability to increase overall brand performance and suggest the effectiveness of a more cross-functional approach to physician interactions.

Increasingly in China, patients are important stakeholders in the health care system, taking ownership and responsibility for much of their own care. As one leading executive noted, “We don’t actually understand the patients, what they want and how they flow through the system. This data is incredibly hard to come by with any accuracy, given the size and regional differences that exist in China.” Patients’ increasing role in treatment will require companies to adopt a more patient-focused approach, one that helps physicians understand and address a wide variety of patient needs (Figure 15).

Changing dynamics in physician-sales rep interactions, as well as physician-patient interactions, limit the attractiveness of a customer model that relies on sales rep promotions targeted to physicians. The market demands a more balanced customer model, one providing on-demand information from a variety of sources.

**Figure 15: Trends and Reasons for Patient Involvement**

**Patient Involvement Trend**



N = 1003

Source: Joint Survey by Monitor Deloitte and HaoYiSheng.com, 2012

**Why are Patients more Involved?**

- **Better access to information**  
*“Patients are becoming more knowledgeable through Internet use.”* — Physician In Charge, Class III general hospital
- **Demand for better care**  
*“Patients increasingly seek better care, as recognition of the importance of disease prevention rises.”* — Physician In Charge, Class II general hospital
- **Rising medical disputes**  
*“Physicians need to communicate more in the current environment, which is filled with physician-patient conflicts.”* — Resident Physician, Class III general hospital

**Broadening of key stakeholders in the market**

While most companies continue to focus primarily on physicians, the most successful companies recognize the growing importance of understanding the needs of, and engaging with, other stakeholders. Let’s consider some of the key stakeholder dynamics that are emerging today:

- Key opinion leaders and medical societies are publishing guidelines that increasingly form the basis for new treatment protocols and drive adoption of best practices across providers
- Hospital administrators and hospital management committees will increasingly move final treatment authority away from physicians and towards management
- Private insurance companies are becoming more prevalent, representing yet another source of potential coverage for pharmaceutical companies
- Health officials have always been important, but the increasing focus on compliance and province-specific policy adjustments requires greater transparency and customized approach

The changing emphasis and power of different stakeholders in the treatment system drives the need for a more cross-functional, collaborative customer model that effectively targets all critical decision makers.

**Designing a model for upper-tier markets**

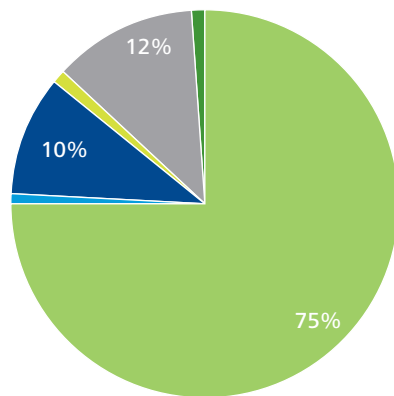
To continue growing in upper-tier markets, companies must reexamine their current customer model and make several fundamental changes. The most important of these are to:

- Understand the system of care
- Provide unique value to individual stakeholders
- Use channels more effectively and consider partnerships to drive targeted, relevant dialogues
- Conduct rapid cycle pilots--and be prepared to fail quickly and often

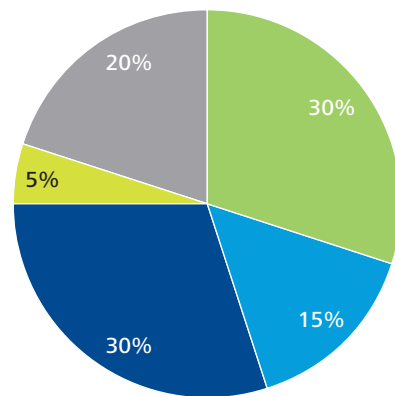
The new customer model will move spending and activity away from the sales force toward a more cost effective approach reflecting the needs of different stakeholders. This approach reflects the relative importance of each stakeholder group within China’s health care system (Figure 16).

Figure 16: Illustration of Representative Scenarios of Traditional Customer Model and New Customer Model

**Market Access Spending in the Traditional Customer Model**



**Market Access Spending in a New Customer Model**



- Sales Force
- Communication
- Regional Marketing
- Patient Programs
- Medical Conference/Events
- Market Research

- Sales Force
- Market Access Team
- Peer to Peer
- Patient Programs
- E-Medical Information

### Understand the system of care

To appropriately target and balance their customer models, companies must first have a comprehensive understanding of the system of care. While everyone acknowledges the importance of hospital administrators, patient societies and other market actors, few companies have made the effort to truly understand these stakeholders. Building a clear understanding of the different stakeholders, their interactions, decisions, needs and criteria will help companies be more effective in their resource allocation and message targeting.

For example, companies need a more thorough understanding of the economic choices facing individual hospitals as they make trade-off and volume-capping decisions. Most companies approach this issue by extolling the benefits of their product relative to its closest competitors. However, this approach does not reflect how trade-off decisions are made in an environment where hospitals are increasingly making trade-off decisions across multiple therapeutic areas and products. Developing a clear understanding of the hospital economics, trade-offs under consideration and the decision criteria can help companies be more targeted in their efforts to limit the impact of value caps.

More significant progress on customer models will require companies to establish a clear sense of how patients move through the health care system, and which stakeholders are capable of influencing specific decisions.

### Use channels and consider partnerships to drive targeted, relevant dialogues

Most companies tap their sales force as the most dominant channel for communication, and interactions tend to be one-way, focused on broadcasting messages to the market. These interactions are not based on the needs of the physician or other stakeholders, but rather on where and when the company wants to interact with an individual.

As companies design a more effective customer model, creating more impactful two-way dialogues that engage customers where and when they want will be necessary to achieve long-term success. Companies should explore innovative new channels such as mobile applications, video sales calls, on-demand sales information and other approaches to deliver the most effective message to build these dialogues. Ensuring the channel used reflects the needs and desires of the individual stakeholder will ensure messages are appropriately delivered, while at the same time providing valuable information about the market

### Figure 17: Providing unique value to individual stakeholders

Stakeholders have an increasingly broad set of decision-making criteria, needs and responsibilities. For each group, individual needs must be reflected in the materials and interactions that companies design. Examples of actions companies should consider taking include:

**Physicians:** Drive greater scientific dialogue in promotional materials, moving away from a dialogue that is primarily about the efficacy and safety of an individual therapy to the relative comparative benefits of the therapy.

**Patients:** While standard patient education programs will always be a necessary component of patient services, greater use of two-way digital technology, such as mobile applications, online tools and social media should be considered to boost engagement with patients.

**Payers:** Drive relevant dialogues for payers by providing clear, relevant, value-based information. In this instance, decisions will not be based on traditional measures like Quality Adjusted Life Year (QALY), Disability Adjusted Life Year (DALY) and Incremental Cost Effectiveness Ratio (ICER) but rather a more targeted dialogue about how an individual therapy creates benefits in the health care system.

and a company's competitive status through a more open dialogue. While these channels may act as supplementary approaches to companies' sales force for the foreseeable future, successful implementation may shortly replace the conventional customer model. Many pharmaceutical companies are therefore experimenting with partnerships to expand their presence in social networks and other digital platforms.

#### **Conduct rapid cycle pilots and be prepared to fail quickly and often**

Designing a new customer model will be a process of experimentation and continued change. It is highly improbable that companies will 'get it right' the first time. As such, it is crucial to build an internal program and the supporting momentum to rapidly pilot, test and evolve multiple models before a successful model can be implemented. The ability to rapidly prototype and test new models will be crucial to establishing a new customer model for the upper-tier markets.

#### **Without risk there can be no reward**

Changing the customer model will require bold and brave leadership from pharmaceutical companies. Senior leadership must become comfortable with redesigning a model that, although currently working, is rapidly losing its effectiveness. One key restraint on change is the widespread anticipation of EDL mandates — where the government is expected to further enforce price cuts and limit drug usage to certain levels among hospitals for selected major products. Driving this change will therefore

require a higher degree of risk tolerance, greater comfort with failure and internal alignment on the importance of these initiatives. Taking these steps will allow companies to make substantial progress in successfully designing and implementing a new customer model that reflects the changing dynamics in upper-tier markets.

Companies that successfully navigate this transition can realize disproportionate rewards from the market as other companies, still using the old model, stagnate. Companies that design a new customer model can accrue an array of benefits:

- Return to profitability and growth as more targeted interactions drive greater uptake and reduced focus on sales force lowers overall cost base
- Greater engagement from the critical stakeholders in the market
- Strong insight about the market and faster response time to changes as dialogues shift from a one-way broadcast to a more balanced, two-way dialogue with key stakeholders
- Better decision making as internal decision processes are balanced across functions and account for the needs of all stakeholders in the market

Creating an effective customer model that reflects upper-tier cities' changing dynamics is one of the most pressing challenges facing pharmaceutical companies today. Getting the model right will allow some competitors to separate from the pack — as others continue to invest in a model that is rapidly losing relevance.



# Reaching New Markets

Dialogues about future customer models in China's health care market frequently focus on inefficiencies of the traditional, high-density, sales-rep model when engaging smaller, heterogeneous markets in lower-tier cities, where individual accounts have lower potential, physicians and patients have different needs, and ability to pay is more constrained than in upper-tier markets. Other conversations focus on markets in upper-tier cities, which are experiencing a shift from the traditional sales-led model to a new balance involving more marketing, medical, market access and government affairs.

Companies that successfully shift their business model will realize disproportionate rewards in both upper and lower-tier markets, while those that do not will gradually be sidelined in a market increasingly dominated by highly sophisticated competitors.

## Establishing profitable operations in lower-tier geographies

One of the government's key priorities for recent health care reform has been to extend health care access to all geographies in China. While the government has successfully ensured 95% of the population has access to some form of insurance coverage, for many patients, convenient physical access to high-quality care is limited.

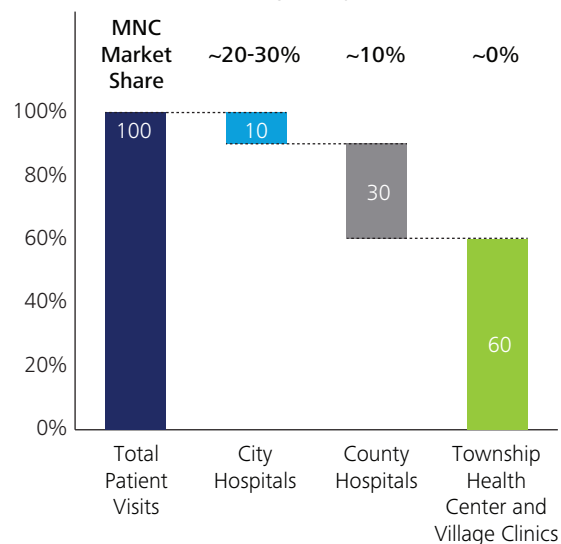
This is changing rapidly, however, as major government investments in primary care, Community Health Centers (CHC) and increasing the number of health workers have come to fruition. The resulting prescription volume and associated health care expenditure in county hospitals, township health centers and village clinics is expected to reach 170 billion RMB by 2015 and roughly 250 billion by 2020. Together these prescription volumes would represent almost 60% of the expected growth in the Chinese pharmaceuticals market over the coming decade<sup>28</sup>.

Currently, most MNCs focus primarily on Tier 1 and 2 cities<sup>29</sup>. Though these geographies cover 33-45% of China's patient population, they receive a much higher percentage of China's patient visits because of those traveling from

lower-tier cities to seek better medical care. Coverage for most domestic companies is even more limited, as many focus regionally or locally, with few operating nationally or across multiple provinces<sup>30</sup>. However, it is estimated that by 2020, nearly 50% of all patient visits in China will occur in facilities not currently covered by MNCs (Figure 18). While the promise of this segment has been well-documented, to date, few companies have successfully entered the lower-tier market because most have sought to recreate high-cost models better suited to developed health care markets.

Figure 18: Patient Visits Occurring in Facilities Not Currently Covered by MNCs

### Patient Visit Share in Changde City, Hunan Province



Source: Monitor Deloitte research and analysis

Companies must fundamentally rethink how they do business to succeed in lower-tier markets. A renewed focus on creating fit-for-purpose customer models, optimizing product portfolios and building strong strategic partnerships will be critical to winning in these markets. Approaching these markets with a 'business-as-usual' mindset is sure to end in failure as lower-tier markets simply cannot support a traditional pharmaceutical model.

<sup>28</sup> Citi Investment Research, China Health Care Sector Handbook. 2010.

<sup>29</sup> Monitor Deloitte analysis.

<sup>30</sup> Monitor Deloitte research.

**Why is expansion in lower-tier markets challenging?**

Lower-tier markets are fundamentally different from their upper-tier counterparts. Where upper-tier markets often resemble more developed health care markets like the US or Europe, those of lower tiers represent a spectrum of markets, ranging from those approaching developed status, to those merely emerging as health care markets. The differences among these markets can be categorized along four themes:

- Substantial differences in ability to pay between and within tiers
- Lack of disease awareness and understanding leads to low diagnosis and compliance
- Geographic dispersion limits productivity of traditional model
- Operational complexity is substantially higher

These themes provide a foundational understanding for how companies should approach lower-tier markets, and help inform the critical choices they have to make about the customer model they will use to serve these markets.

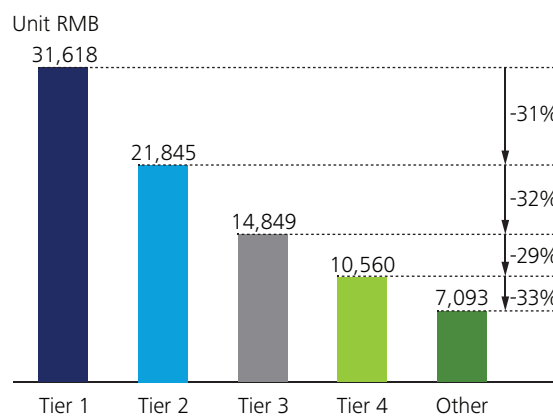
**Substantial differences in ability to pay between and within tiers**

Ability to pay varies substantially between lower and upper-tier geographies, as well as among different lower-tier markets (Figure 19). These differences are affected by incongruities in the provincial reimbursement lists. For instance, in Shanxi, the antibiotic Cefaclor is reimbursed at 80% of cost while in Hebei it is reimbursed at 95%. Far fewer people in lower-tier cities are willing, and able, to afford premium health care offerings from MNCs or domestic companies<sup>31</sup>. Although incomes in China's lower-tier cities have increased substantially in recent years, a 30-50% difference in average incomes persists between top-tier and lower-tier cities<sup>32</sup>. This presents a unique challenge because patients and institutions are looking to lower the cost of care, but are frequently unwilling to make a corresponding trade-off in product efficacy or features.

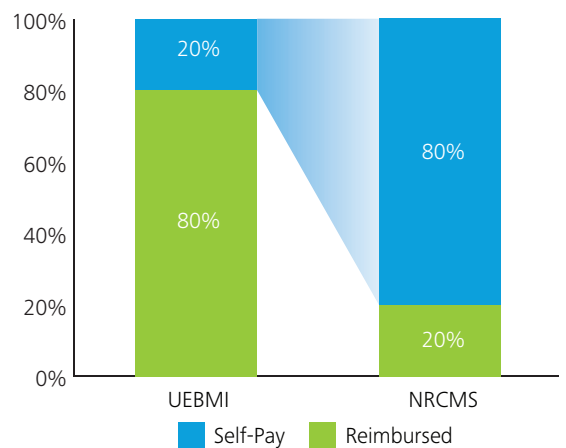
Significant differences among the several types of BMI add another layer of complexity to lower-tier markets. As Figure 19 illustrates, patients who are not eligible for the

**Figure 19: Differences in Income and BMI Reimbursement Across Tiers**

**Estimated Average Disposable Income by City Tier**



**Average Outpatient Drug Reimbursement: UEBMI vs. NRCMS**



<sup>31</sup> National Bureau of Statistics of China, China Statistical Yearbook 2012, 2012; investment bank reports; Nielsen Research; Monitor Deloitte analysis.

<sup>32</sup> National Bureau of Statistics of China, China Statistical Yearbook 2012, 2012.

Urban Employee Basic Medical Insurance (UEBMI) scheme, which covers 80% of reimbursable expenses, are forced to use the New Rural Cooperative Medical Scheme (NRCMS), which covers only 20% of medical expenditures<sup>33</sup>. This difference in coverage forces patients and physicians to make trade-offs and seek alternative health care solutions to optimize care.

Some patients' relatively lower ability to pay forces companies to approach decisions about pricing, product portfolio, operational model and market selection to control costs while maintaining price integrity across markets to justify investment of capital in lower-tier markets.

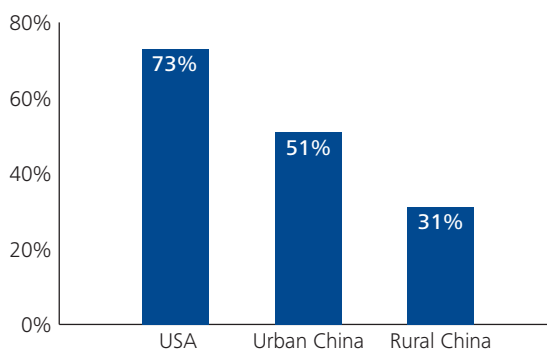
### Lack of disease awareness and understanding leads to low diagnosis and compliance

A relatively less health-aware population in lower-tier markets creates a significant barrier to the potentially large volume of patients in these cities. A lack of awareness means fewer patients seek, and ultimately receive, treatment, resulting in a massive reduction in the number of potential patients for a given therapy.

For example while there is still a gap in the diabetes diagnosis rate between the United States and urban China, in rural China, this rate can be as low as 30%<sup>34</sup>. This represents almost a 100% difference in the rate at which patients enter the treatment process. (Figure 20)

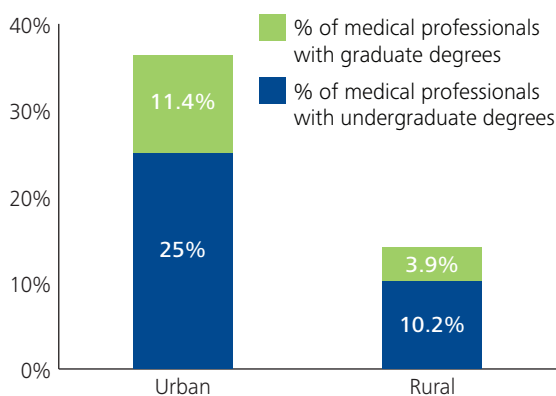
Similar gaps exist in terms of physician awareness and capabilities. While efforts are being made to address this issue, substantial differences remain between upper and lower-tier markets. For example, almost all of the roughly 200,000 medical professionals with postgraduate degrees work in Class III hospitals, which are exclusively located in top-tier cities. In contrast, only about 6% of medical professionals employed outside of a Class III hospital have a post-graduate education (Figure 21)<sup>35</sup>. The result is significant gaps in awareness of new diagnostic capabilities, treatment options and protocols and patient needs between upper and lower-tier cities.

Figure 20: Comparison of Diagnosis Rates for Diabetes



Source: Richard Sicree et al., The Global Burden: Diabetes and Impaired Glucose Tolerance, IDF Diabetes Atlas 4th Edition, International Diabetes Federation, 2009; Dong Y. et al., Prevalence of Type 2 Diabetes in Urban and Rural Chinese Populations in Qingdao, China, Diabetic Medicine: a Journal of the British Diabetic Association, 2005; Monitor Deloitte Analysis

Figure 21: Comparison of Physician Education Levels



Source: Zhang, Junhua, Ministry of Health — Health Human Resources Development Center, Management and Organization of Health Professionals, and Health Human Resource Management in China, 2012

Given these differences in awareness, education and capabilities, manufacturers must pursue a substantially different dialogue with physicians and patients in lower-tier cities from those in upper-tier cities. Medical education, patient awareness and support services and marketing that shape physician and patient behaviors are substantially more important in lower-tier markets than they are in those of upper tiers. Tailoring messaging, materials, advisory boards

<sup>33</sup> Ministry of Human Resources and Social Security; Monitor Deloitte interviews and literature review.

<sup>34</sup> Alcorn T. et al., The Lancet, Diabetes Saps Health and Wealth from China's Rise, 2012; Yang W, Diabetes Leadership Forum 2009 China, Diabetes, the Hidden Pandemic and its Impact on China, 2009; Monitor Deloitte analysis.

<sup>35</sup> China Ministry of Health report, 2010.

and education events to these needs is crucial to success as manufacturers seek to build operations in these markets.

### Geographic dispersion limits productivity of traditional models

Markets in lower-tier geographies are characterized by a lower density of potential prescription drug sales compared to their upper-tier counterparts. Sales reps in lower-tier markets must cover larger numbers of institutions and greater geographic areas to achieve the same sales productivity as reps in larger cities.

A sales force large enough to serve the lower-tier markets is unwieldy, costly and difficult to staff with qualified professionals. In the face of a potential EDL mandate — where drug prices further decrease and hospital usage changes dramatically — the return on expanding sales force into lower-tier markets is even more difficult to gauge. As a result, companies must seek new ways to engage customers in appropriate dialogues, as promotional and education efforts are crucial to lower-tier market success. A combination of high-impact, low-cost tactics is critical to achieving success.

Geographic dispersion, whether it includes expanding a sales force in geographic scope or just in number of reps, raises the risk for legal compliance issues. Geographic distance from sales managers, the anonymity that comes with a larger sales force or the nuanced regulatory and

political environments of new markets make ensuring legal compliance much more difficult. While compliance is not a measure for growth it should be a significant consideration while expanding to new markets.

### Operational complexity is substantially higher

Although categorizing cities below Tier 3 as lower-tier markets can be an attractive simplification, it is in fact too broad a generalization and ignores the nuances of each individual market. Substantial differences in the dynamics can be found among lower-tier markets, creating a need to tailor operations to the individual characteristics of each. As a result, companies seeking to operate in the lower-tier cities of China face a myriad of complexities including:

- Dependence on relationships with multiple distributors or partners to gain access to lower-tier markets
- Significant differences across markets in access environment, including tender processes, hospital listing and administration and regional health policies
- Differences in competitive set and treatment criteria that require tailored messaging to maximize effectiveness
- The need for a field force with a broader skill set, as a typical rep will have to carry more products in their bag to be economically viable

These challenges require companies to develop a method for categorizing and approaching lower-tier markets to simplify operational complexity, while acknowledging the unique differences and characteristics of each market.

**Figure 22: Economics of Sales Force Deployment**  
Sales Concentration by City of Drug X (2011)



Source: Monitor Deloitte research

### Key Implications

- A typical brand team may have up to 100 sales reps covering the top 20 cities, with annual cost of at least 35 Mn RMB
- Using the same deployment model to China's 170 cities with more than 1 Mn inhabitants will require a sales force of over 800, and cost more than 300 Mn RMB

### **Building a successful model for the lower tiers**

To build a profitable, successful model for the lower tiers, companies must focus on seven critical areas:

#### **1) Develop differentiated, holistic insight about each market**

Successful expansion will come from an ability to generate a comprehensive understanding of individual markets' systems of care, key decision makers and their priorities while also categorizing these markets in to clusters.

Based on a market's level of maturity, physicians, hospital administrators and patients are faced with different trade-offs in lower-tier markets and face health care issues that are vastly different from their upper-tier counterparts. Furthermore, these issues vary by city and require a greater depth of understanding.

Companies looking to effectively operate in lower-tier markets must understand the needs of individual decision makers and actively seek to develop unique, innovative solutions that create value for the overall health care system. Clustering markets based on their level of maturity will allow companies to make expansion decisions more effectively. Moreover, a strong understanding for individual markets means tighter targeting and overall success.

#### **2) Look at geography as a portfolio decision based on market maturity**

Because markets in lower-tier cities are heterogeneous, so too are the opportunities they provide. An optimized geographic portfolio contains a mix of markets with various levels of maturity. While more mature markets present low-risk opportunities, too often early entrants to nascent markets capture much of the value, leaving others to struggle due to late market entry.

Using the cluster method, companies should assess the relative maturity of each market based on the overall evolution of its health care system. Using this information, companies can establish portfolios of geographies, grouping markets by their various maturity levels: those that have developed; those that are developing; and those that are emerging. Selecting a portfolio of geographies from different clusters allows companies to grow with the market by slowly adding the requisite capabilities and assets to serve individual markets as they mature, thus driving greater cost effectiveness.

#### **3) Selectively design an appropriate product portfolio for each market**

The ability to pay attention to the needs of patients, physicians and hospitals is markedly different in lower-tier markets, which have a broader range of demands than in their upper-tier counterparts. Companies must select a unique basket of products that reflect both the varying needs of markets in lower-tier cities and their ability to pay. Designing a product portfolio that reflects the relative stage of maturity of an individual market and its unique disease profile will help companies have the greatest success in meeting the needs of patients, physicians and hospitals. It may be necessary to design uncommon product baskets for reps to maintain profitability and sales volumes (e.g., some reps may simply have to carry products from multiple therapeutic areas to be viable).

#### **4) Focus on innovative access solutions**

Developing access solutions in lower-tier markets is unique because of the particular emphasis on hospital administrators and provincial reimbursement bodies. Solutions must reflect the differences in trade-offs these stakeholders are willing to make and appropriately tailor value offerings for the overall health care system. Pharmaceutical companies need to acknowledge that these solutions may vary greatly among geographies and clusters.

**5) Create engagement and awareness through education**

Substantial incongruities in physician and patient awareness persist in lower-tier markets. Often, the most impactful actions include providing continuing education services to physicians, patients and payers to drive greater disease awareness. Specific topics that are most relevant include diagnosis and symptom identification, treatment protocols and improving compliance. While the opportunity in lower-tier markets is attractive, participants will need to shape these markets' development; ensuring greater numbers of patients seek and receive treatment for their conditions.

**6) Move beyond the sales call for greater effectiveness and efficiency**

While market education is important, promotional activity will remain a critical component of success in these markets. Physicians in lower-tier markets will require greater disease and product education, more scientific dialogue and information about therapeutic value and cost-benefit ratios. Companies need to move beyond simply using sales reps to deliver information and consider using digital channels, medical field force, interactive workshops and training sessions to engage physicians in the dialogues in which they are most interested.

**7) Experiment to achieve operational efficiency**

While experimentation with market access and customer models is a critical strategy for adapting to China's evolving pharmaceutical market, it plays a different, if not more important, role in lower-tier markets. While pharmaceutical companies should rapidly design and test pilot programs, and be ready for them to fail quickly, the array of variables to consider is different, as is the ability to apply successful models to different geographies. What may be effective in one geography, or cluster, may or may not work in another. Experimentation is a key factor in understanding and being successful in these markets.

# Unlocking Access across China

China's market access system is constantly evolving, presenting unique opportunities and challenges for companies seeking entry. Driven by multiple cost control measures, a wide range of decision makers and continued national focus on reducing health care cost, the past 18 months have seen the emergence of numerous programs that may offer greater access, but also bring with them a degree of uncertainty. As a result, the single most pressing challenge for companies in China is managing this highly complex and challenging market access environment.

To be more effective, companies must better understand incentives for each stakeholder, adopt an approach that creates real value for the health care system and be willing to make substantive trade-offs. Companies must be willing to experiment with innovative approaches to market access to move forward successfully.

## Recent changes offer hope for greater access in China

Over the past 5 years, China's access environment has moved from a system driven primarily by self-pay or private institutions to one offering a myriad of access opportunities. The environment is changing — shifting from limited to increased access, but only for therapies that demonstrate appropriate value to the health care system and patients. With this scenario, strategies that work elsewhere in the world will likely not be feasible in China. Thus, businesses will need new and innovative approaches to access.

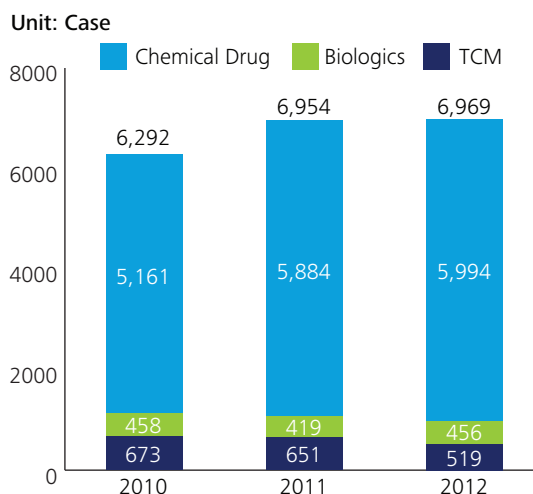
Several positive developments have taken place in the past two years. Significant changes include streamlining of the regulatory process, reimbursement expanded to several different diseases and therapies and increasing focus on creating more access opportunities. These changes create greater opportunity for life sciences companies.

## Streamlining the regulatory process

The first component of access for any company is to obtain regulatory approval. In most countries, these processes are generally straightforward, but in China, the complex process, conservative attitude toward clinical trials of innovative drugs and large numbers of domestic generic drug applications have overburdened the system, resulting in substantial approval delays.

The Center for Drug Evaluation (CDE) at the China Food & Drug Administration (CFDA, formerly State Food & Drug Administration) receives an overwhelming number of applications for both generic and innovative drugs (numbering around 7,000 applications in 2012) for its 150-member review staff (Figure 23)<sup>36</sup>. Consequently, application and registration processes require an average of more than 2 years to complete<sup>37</sup>. Particularly for innovative drugs, CFDA has an attitude of "stringent in, easy out," meaning increased approval time for Clinical Trial Application (CTA) compared with other markets (Figure 24)<sup>38,39,40</sup>.

Figure 23: Total Applications Received by CDE (2010-2012)



Note: Includes CTA, NDA, formulation change, bioequivalent studies, etc; both innovative and domestic drugs

Source: Center for Drug Evaluation, 2012 Annual China Drug Review Report, 2013

<sup>36</sup> Center for Drug Evaluation, 2012 Annual China Drug Review Report, 2013.

<sup>37</sup> Monitor Deloitte analysis.

<sup>38</sup> Chang, M., 2010 Multi-regional Clinical Trials Seoul Workshop, Regulation & Expectation on MRCT in China — the Perceptive of MNCs, 2010.

<sup>39</sup> Korean Food & Drug Administration 2010 report.

<sup>40</sup> Downing et al, New England Journal of Medicine, Regulatory Review of Novel Therapeutics — Comparison of Three Regulatory Agencies, 2012.

**Figure 24: General Range of Approval Time for CTA and NDA in China vs. Major Countries**

Unit: Month

	China	US	EU	Korea	Taiwan	India
CTA	8–18	1–2	1–2	1–2	3–4	3–4
NDC	4–15	6–10	10–15	~4	N/A	12–18

Note: Clinical Trial Application; New Drug Application  
 Source: Chang, M., 2010 Multi-regional Clinical Trials Seoul Workshop, Regulation & Expectation on MRCT in China — the Perceptive of MNCs, 2010; Downing et al, New England Journal of Medicine, Regulatory Review of Novel Therapeutics — Comparison of Three Regulatory Agencies, 2012

Changes to the regulatory processes and increasing cooperation between the CFDA and biopharma companies, however, are building momentum for reducing approval time. The CFDA is implementing a series of national reforms and pilot programs aiming to shorten approval lead times (Figure 25). In addition to these national-level changes, the CFDA introduced pilot programs to delegate parts of the workload to provinces. For instance, the CFDA authorized the Guangdong FDA to conduct evaluations and review drugs manufactured locally. Distributing the review workload across multiple departments should reduce review time for any one product.

Supplementing this effort, companies are working closely with the local Chinese regulators by including them in the trial design process early on and adding a China component in earlier phases of trials, such as Phase II or even Phase I (Figure 26). These actions appear to be working as approval timelines for some compounds are being reduced.

The CFDA highly emphasizes that actual value to Chinese patients is a key lever for expediting the approval process. Therefore, addressing critical unmet clinical needs in China is a prerequisite for fast-track approval. Superior clinical results from mainland Chinese trials, backed up by data from Asian-population or global trials, make convincing cases that can expedite approval from CFDA<sup>41</sup>. For instance, many cancer or hepatitis therapies were launched in China less than 2 years after their global launch, while many other therapies experience 5 to 8 years of “drug lag.” Xalkori, the first personalized medicine for lung cancer, received speedy approval when the minimum cohort size requirement was waived (Figure 27).

While the full impact of these reforms is yet to be seen, some positive momentum is evident. Given the size, scale and scope of the system involved, hurdles remain, but thanks to government ambitions we can expect continued reforms.

**Figure 25: Reformative Approaches to Expedite Drug Approval**

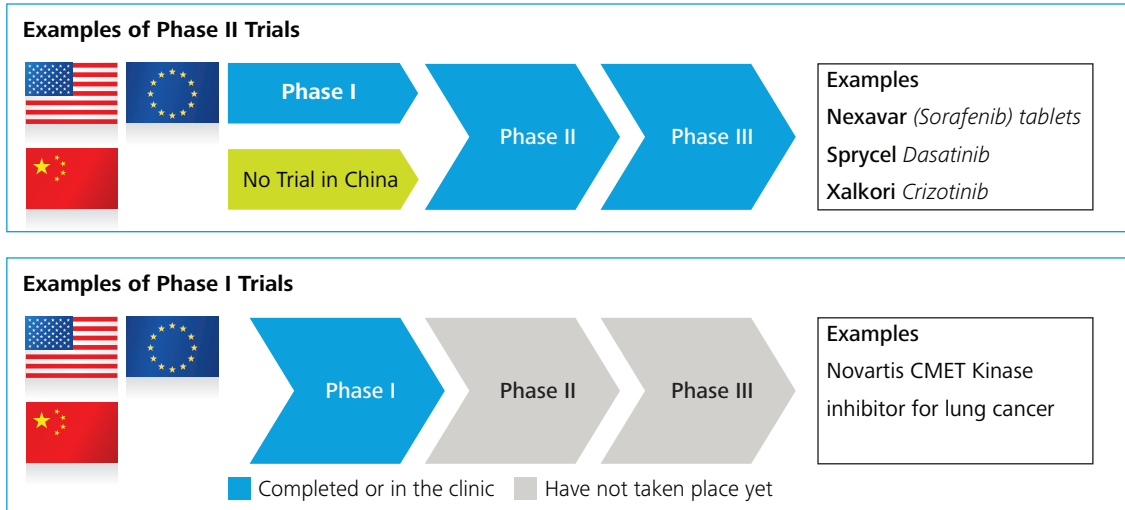
- 1 Established fast-track channel for drugs that address critical unmet needs in China
- 2 Set rolling submission mechanism for innovative drugs to shorten waiting times
- 3 Initiated open-door consultation to improve communication efficiency
- 4 Invested in capability improvement to smooth the review process

Source: Center for Drug Evaluation, 2012 Annual China Drug Review Report, 2013

<sup>41</sup> China Food and Drug Administration, Drug Registration Guidelines, 2007.

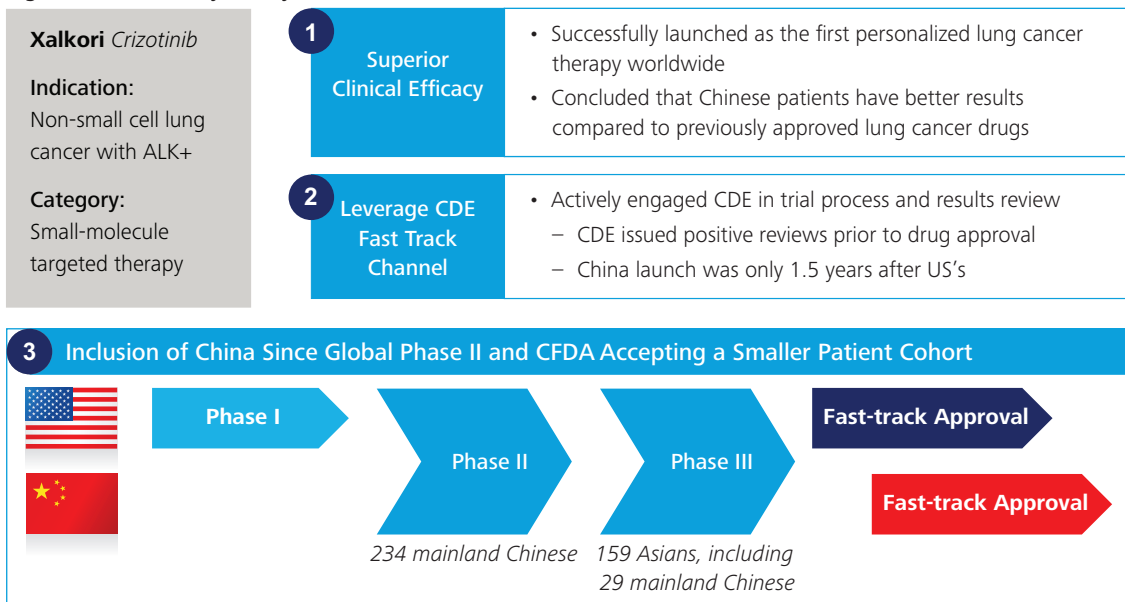


Figure 26: Examples of China Included in Phase II or I Global Trials



Source: clinicaltrial.gov; Monitor Deloitte analysis

Figure 27: Case Study — Key Success Factors of Xalkori’s Fast Launch in China



Note: Anaplastic lymphoma kinase

Source: Clinicaltrial.gov; Pfizer press release; FDA press release; Monitor Deloitte analysis.

### Broader reimbursement coverage

Reimbursement opportunities have grown following the introduction of Essential Drug List (EDL). Drugs can now be reimbursed under one of three lists — the EDL, the National Reimbursement Drug List (NRDL) and the Provincial Reimbursement Drug List (PRDL). Although reimbursement opportunities have increased, so has the complexity of obtaining reimbursement approval. Frequently, the price associated with reimbursement is substantially less than that in the private market, thus forcing companies to make a difficult choice about their strategies for gaining access. Yet, in this difficult environment, many new therapies have received reimbursement approval over the past 18 months.

Former Health Minister Chen Zhu announced several measures in late 2012 and early 2013 that will directly and indirectly change the make-up of the different lists and improve the overall quality of reimbursable drugs.

**EDL:** Recent EDL changes have broadened the number of therapies available and improved overall access. Previously focused on reimbursing generics in basic disease areas, the 2013 EDL revision included a number of major branded generics and extended its coverage into cancer diseases with the addition of 14 oncology drugs. In addition, EDL prescriptions at clinics will provide patients with higher reimbursement rates versus larger hospitals. This will likely alter patient flows, driving more patients and prescriptions through smaller clinics and hospitals. In the meantime, the National Health and Family Planning Commission (NHFPC, formerly Ministry of Health) intends to expand sales of EDL drugs at urban hospitals, aiming to cover up to 25-30% of drug usage for Class III hospitals and 40-50% for Class II hospitals<sup>42</sup>.

While these developments are a plus for patients, many multinational companies will see their products facing greater price pressure as the EDL lowers price points and incorporates intense generic competition. For drugs listed on the EDL, this results in an even higher level of price cuts, particularly for branded generics. Compared to the 40-50% average price cuts in the 2009 EDL listings, branded generics saw reductions as high as 95% for Bristol-Myers Squibb's Capoten and 93% for Roche's Rocephin. While the 2012 EDL revision has yet to release maximum price limits for the listed drugs, a similar impact may occur for drugs on the list. The future of the EDL remains relatively uncertain as the government works to refine one of its key policy initiatives.

**NRDL A & B:** The NRDL has not seen any changes since 2009, however, it is widely expected that its upcoming revision will follow the lead of the EDL in expanding its size and improving treatment quality. The introduction of the Critical Illness Insurance Program (CIIP) in late 2012 hints at the direction the NRDL's changes will take. The CIIP pledges to reimburse at least 50% of all medical costs related to its 20 most catastrophic diseases like gastric cancer and child leukemia<sup>43</sup>. The NRDL will likely include more high-value treatments in these therapeutic areas to help the CIIP achieve this goal. However, we have yet to see how these programs will affect price points and access conditions for life sciences products.

**PRDL:** Some provinces are actively addressing local medical needs by expanding NRDL to PRDL. PRDL could be adjusted with shorter intervals than NRDL, but the timing is unpredictable and varies among provinces. The drugs added to PRDL are normally innovative drugs of three major types (Figure 28): expensive therapies, those launched after the 2009 NRDL and innovative drugs manufactured locally.

<sup>42</sup> Ministry of Health, National Health Work Conference, 2013.

<sup>43</sup> Ministry of Health, Policy Briefing on China's Health Reform, 2013.

Figure 28: Examples of PRDL Drugs

Categories	Examples	Provinces Adopted
Expensive Therapies	Herceptin (Trasuzumab)	Jiangsu
	Tarceva (Erlotinib)	Anhui
	Mabthera (Rituximab)	Heilongjiang, Shandong, Guizhou, Jiangxi, Guangxi
Launched after 2009 NRDL	Ezetrol (Ezetimibe)	Jiangsu, Jilin, Heilongjiang, Hainan, Shaanxi, Qinghai, Yunnan, Hebei
Innovative Drugs Manufactured Locally	Conmana (Icotinib)	Zhejiang

Source: Press releases

The PRDL typically only offers partial reimbursement, but still substantially expands coverage. Some provinces are willing to cover more expensive therapies for outstanding local needs that cannot be paid for nationally, creating opportunity for innovative or biologic products. Additionally, the PRDL is more flexible, offering a faster time to reimbursement than national coverage. Therapies typically must wait several years for an NRDL review to obtain listing, but in some provinces, PRDL listing could be as early as 6 months after launch. Finally, listing on the PRDL provides a stronger case for listing in other provinces and nationally. This helps therapies or companies build the necessary body of evidence to gain greater support for coverage at the national level.

**Commercial insurance:** The continued growth of commercial insurance will broaden overall coverage and may supplement public coverage for expensive therapies. Recent actions to improve reimbursement have shed light on the government’s intentions to further enhance overall coverage quality. Because budgetary constraints persist, reimbursement inclusions will likely be limited to therapies that offer proven, real-world value in the health care system. Many recent inclusions on the EDL are proven products with substantial data in the Chinese market, reflecting the government’s desire to provide coverage for therapies that improve overall health of the population. Given an ongoing emphasis on value, companies must present a clear, data-driven value story that emphasizes the real-life impact therapies have on patient health, and on health care budgets.

#### Despite positive progress, uncertainty remains

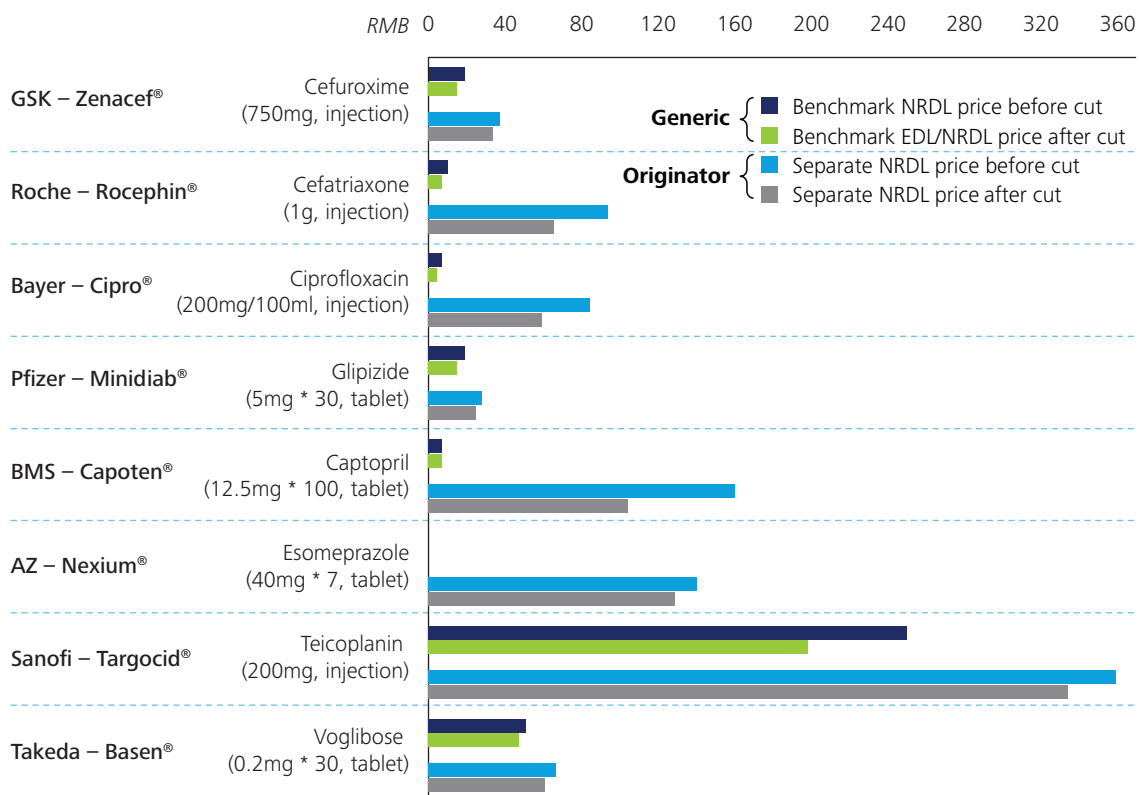
Drug pricing changed substantially in recent years on the national, provincial and hospital levels. While all drugs are affected, MNCs continue to be a critical focus of the government’s cost control efforts. Positive steps have been taken, but several recent actions have created uncertainty about the direction pricing and access will take at the national, provincial and hospital levels.

#### National pricing pressure

The National Development and Reform Commission (NDRC) has issued five rounds of price cuts since 2010. Consistent with the NDRC’s objective to reduce the separate pricing premiums enjoyed by multinationals by 30-100%<sup>44</sup>, these price cuts have disproportionately affected branded generics. This is demonstrated by the “double price cut” schedule implemented for selected drugs, such as Sanofi’s Taxotere and GlaxoSmithKline’s Hycamtin, in the September 2012 price cut (Figure 29). These price cuts seem likely to continue until branded generics compete at price points close to the next available generic therapy.

<sup>44</sup> National Development and Reform Commission, National Pharmaceutical Pricing Policy Draft, 2011.

Figure 29: Selected Examples of Recent NDRC Price Cuts Affecting MNCs



Source: National Development and Reform Committee press releases regarding drug cuts

### Provincial pricing pressure

Provincial governments continue to take a stronger stance in controlling prices. Historically, local governments acted to reduce pharmaceutical prices beyond the national cap price. However, over the past 18 months governments have worked to eliminate separate pricing for branded generics and more broadly adopt the Anhui model, which aims to aggressively lower drug pricing by minimizing profits.

As an example, Guangdong province announced plans in late 2012 to revamp its pricing policies for branded generics. In its pilot program, Guangdong proposed to eliminate premium pricing for all branded generics that

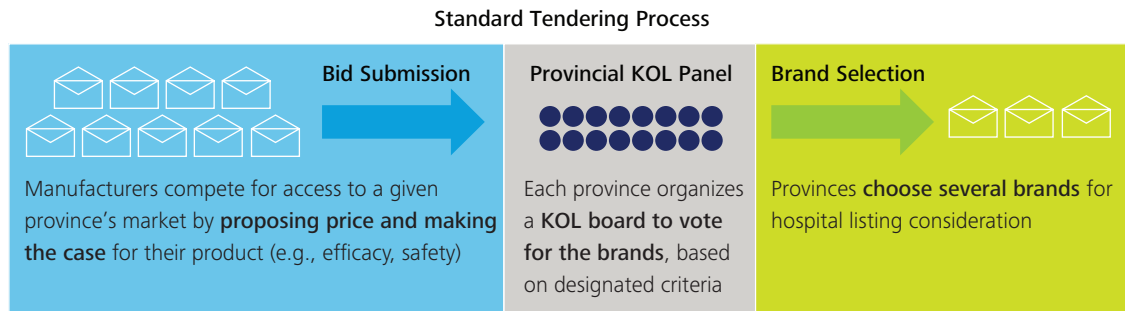
compete with more than 3 generics in the market. For branded generics with less than 3 generic competitors, the province will evaluate the appropriate level of premium on an individual basis.

In addition, provincial tendering processes have further restricted price points. The Anhui tendering model, known for its “double-envelope” system and low-cost focus (Figure 30), has expanded well beyond the its originating province. As of 2012, 18 of China’s 23 provinces have adopted all or part of the Anhui model<sup>45</sup>. The Anhui model has resulted in a 53% average price reduction creating concern about its impact moving forward<sup>46</sup>.

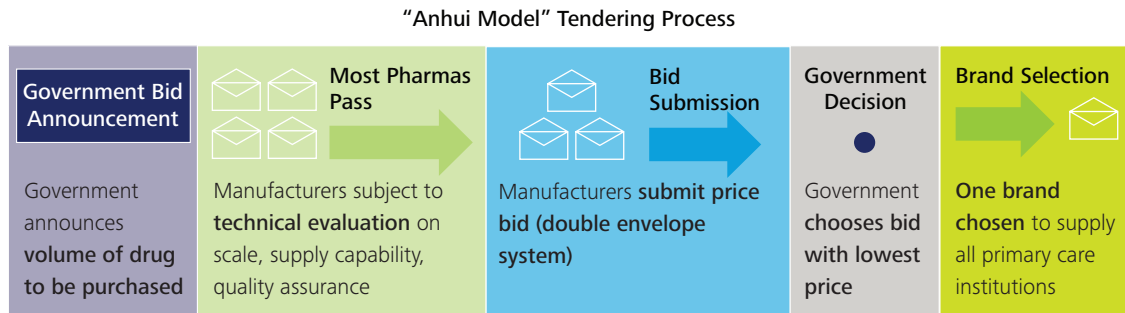
<sup>45</sup> Shobert, B., Anhui Medicine Wrong for China, 2012.

<sup>46</sup> Taylor, L., Pharmatimes, Drugmakers’ Fury as China Plans to Widen Price-Cutting System, 2012.

Figure 30: Comparison of Anhui Model vs. Standard Tendering Processes



Source: Monitor Deloitte analysis



Source: Monitor Deloitte analysis

### Hospital pricing pressure

Hospitals are also seeking ways to lower health care expenditure through experiments with point-of-care restrictions. For example, Shanghai City Med Insurance Bureau piloted a program that limits budgets for hospitals and takes a stronger role in determining how budgets are allocated among diseases and therapies. In Beijing, the City Med Insurance Bureau will determine the appropriate budget for certain diseases using Diagnosis Related Groups (DRGs). These pilots restrict both the prices associated with therapies and the overall volume at which a therapy can be prescribed.

### Building a successful access program in China

Despite the uncertainty, companies exploring innovative approaches to access are seeing substantial success at both the national and provincial levels. Many companies, such as Roche and Bristol-Myers Squibb, have successfully listed products at favorable price points at the provincial level, while others, such as Pfizer and Merck, have succeeded in listing products at the national level. Companies that take a clear, focused and data-driven approach to access have demonstrated success in this market.

To create a successful access strategy for products in China, companies can consider 5 courses of action:

**1) Build a greater understanding of each decision maker's economics and incentives**

To build innovative access solutions, companies must better understand the economics facing each decision maker in the system. Understanding the critical trade-off decisions made by national and provincial governments and hospitals will enable more effective negotiation and more targeted value stories when discussing reimbursement.

**2) Draft innovative value stories**

Traditional value measures like QALY, DALY and ICER are not widely utilized in China. However, companies offering effective value stories that leverage available data to show how a therapy adds value to the overall health care system are experiencing dramatic success in the market. Finding the right way to express therapeutic value in China can create engaging dialogues with access stakeholders and drive greater success with reimbursement and price points.

**3) Focus on patient groups with the highest unmet need**

Receiving access in China requires a clear understanding of which patient segments gain the greatest benefit from treatment. Companies must precisely define their ideal patient population for both reimbursement and prescription decisions to help administrators and physicians more easily understand the real-life value of a therapy, giving greater likelihood of reimbursement.

**4) Consider a regional instead of a national approach**

Provinces have substantial authority over reimbursement, tendering and, now, regulatory approval. Therapies such as Baraclude have had considerable success pursuing targeted reimbursement at the provincial level before attempting to gain greater reimbursement coverage. Working to develop a targeted, sequenced approach to access in China can create positive momentum for market access and set favorable reference price points for products.

**5) Actively participate in pilot programs and other partnerships**

The myriad of partnerships in recent years highlight the range of opportunities that can be capitalized on by joining forces. Companies will need to participate fast, though, as availability of potential partners remains limited and first-mover advantages can have long-lasting competitive impacts.

Building a successful access program is an exciting and unique challenge. Despite current barriers, recent changes create hope for more positive momentum as the government looks to achieve its aim of providing universal health care to the population. Capitalizing on these opportunities is possible through continued focus, experimentation and tenacity.

# Shifting to Private Health

China has committed to making private health care a larger part of its overall ecosystem, aiming for 20% of beds and 20% of spending to be conducted through private institutions by 2020. To achieve this ambitious goal, the government has laid out multiple policy initiatives aiming to relax historical constraints that have previously limited growth.

These changes unleashed a wave of growth in private health care that is only just beginning. State-owned Enterprises (SOEs), MNCs and private companies are looking to capitalize on the rapid growth in private health care. The speed at which this market will develop presents challenges to today's pharmaceutical business model — offering new channels and customers — but also creates new opportunities to partner with patient programs, outcomes data collection or other possibilities down the road.

## Building the foundation for private care

China's private health care market expanded rapidly over the past several years, moving from a relatively insignificant part of the overall market to representing 8% of total care. Recently stated ambitions and continued pushes from the government should see continued expansion of private health care, both delivery and insurance, in the coming years.

A number of trends are shaping the future of the private care market including:

- An improving policy environment
- Greater patient demand
- Expanding private insurance offerings

## An improving policy environment

In 2007, the NHFPC placed approximately 500 public hospitals on the market to encourage privatization and modernization of health care services. However, this initiative was not seen as a success due to very little interest from the private market (Figure 31).

In 2009, the government re-emphasized its commitment to private health and laid out several ambitious objectives — the most significant being increasing private delivery services from 11-20% by 2015<sup>47</sup>. The government supported these actions with further policy changes that address existing systematic issues and underscore its commitment to private health care (Figure 32).

Figure 31: Challenges in Privatizing Public Hospitals

<b>Inflexible Legacy Hospital Policies</b>	<ul style="list-style-type: none"> <li>• Changes in human resource issues such as compensation, pensions and termination of under-performing physicians / staff were not allowed</li> <li>• Majority of the hospitals offered for privatization were unprofitable</li> </ul>
<b>Physician Immobility</b>	<ul style="list-style-type: none"> <li>• Experienced physicians preferred to stay with public hospitals for job security, cumulated pension and established career track and relationships</li> <li>• Physicians were legally tied to personnel systems of one particular public hospital</li> </ul>
<b>FDI Restrictions</b>	<ul style="list-style-type: none"> <li>• Mandated joint-ventures for the establishment of a foreign private health provider</li> <li>• Foreign ownership limited to 70%</li> </ul>
<b>Lack of BMI Transferability</b>	<ul style="list-style-type: none"> <li>• Eligibility of private providers for BMI coverage decided on a case-by-case basis</li> <li>• Administrative burden resulted in limited number of private applications for BMI coverage</li> </ul>

<sup>47</sup> Zhao Y., China Daily, 20% of Hospital Beds to be Privately Funded by 2015, 2012.

**Figure 32: Policy Changes to Support Private Care Investment**

Policy Change	Intended Impact
1 Offered profitable public hospitals for privatization	Increase incentives for investments in privatization
2 Removed 8% business tax on for-profit hospitals	Support profitability in establishing private health institutions
3 Abandoned 70% FDI limit	Attract foreign investors with experience to improve private health service quality
4 Allowed physicians to practice at multiple work places	Encourage senior physicians at public hospitals to practice at private institutions
5 Announced efforts to define standards for private hospitals' eligibility to accept public health insurance	Improve affordability of services at private institutions and simplify administrative burden for public insurance application

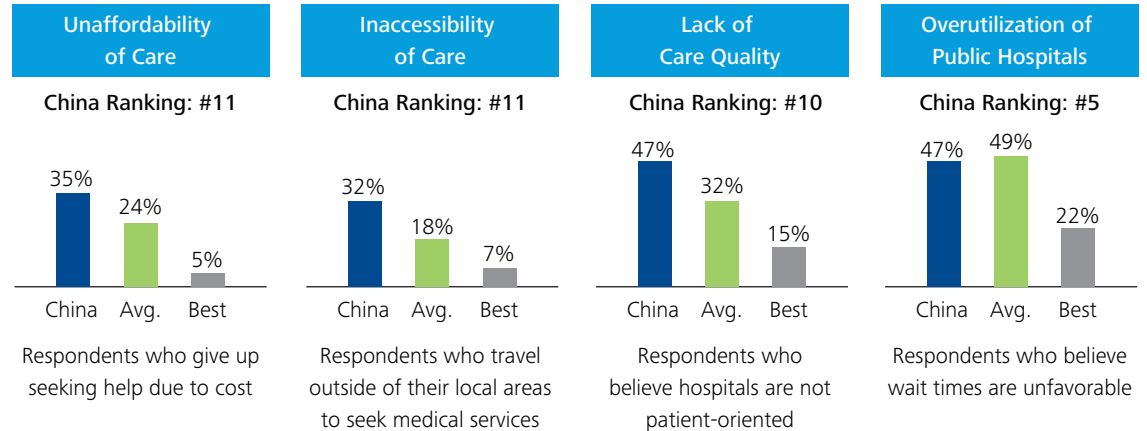
**Greater patient demand**

According to Deloitte’s 2011 Survey of Health Care Consumers Global Report, only 21% of Chinese patients are satisfied with China’s health care system’s performance. Further, only 26% of patients rated their overall health as excellent, the lowest rating among the 12 countries surveyed. The survey found the primary issues contributing to the lack of enthusiasm for China’s health care system are summarized in figure 33.

Some 31% of survey respondents believe privatization would improve the system’s performance (2nd highest percentage among countries surveyed).

Frustration with public hospitals will likely persist as patient volume increases and infrastructure and delivery personnel struggle to keep up with rapidly rising demand. According to the NHFPC, China is already seeing a rapid rise in outpatient flow at private hospitals, which has increased

**Figure 33: Patient Perception of Public Health System**



Source: Deloitte Center for Health Solutions, 2011 Survey of Health Care Consumers Global Report, 2011



at a CAGR of more than 21% since 2010, compared to only 11% at public hospitals<sup>48</sup>. Patient frustration with the quality and availability of care in the public system will likely continue to drive growth in the private health care market.

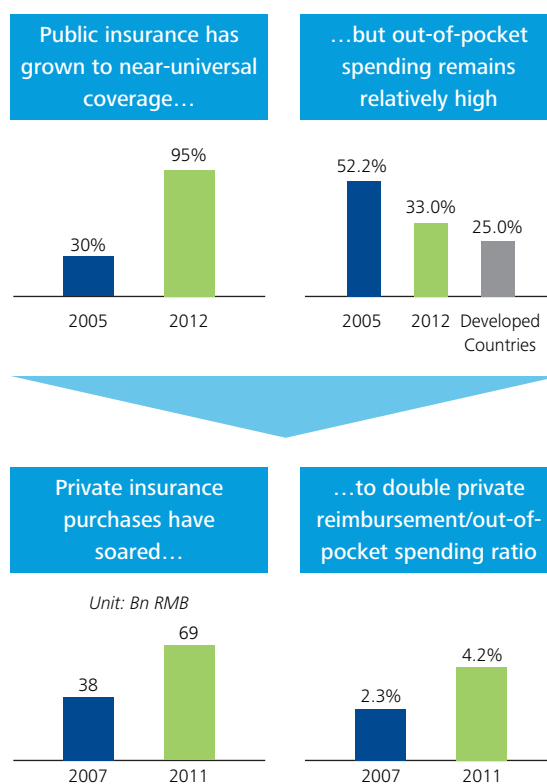
To understand where private health care can offer help, it is useful to know that a key focus of China's public hospital reform is to create a multi-tiered provision system in which basic health care needs are addressed mostly by public hospitals and Community Health Centers (CHC), while public hospital VIP sections and some mid-end private hospitals target specific needs from a mix of the general population and high-end private hospitals support affluent individuals. For each tier, private investment can play a role, either by collaborating with public hospitals or offering its own operations to serve patients' demand.

### Expanding private insurance offerings

Public insurance coverage increased to 95% of the population between 2006 and 2012<sup>49</sup>, the equivalent of 700 million new enrollments. This is impressive by any measure, but the actual level of insurance, and thus reimbursement, remains low (Figure 34). More than 27% of Chinese respondents in Deloitte's Global Health care Survey consider themselves under-insured, the highest percentage among surveyed countries. Previously, citizens filled this gap with a relatively high savings rate that helped provide coverage should medical expenses be incurred.

Private health insurance offerings have emerged to fill this gap, supplementing treatment coverage and providing targeted coverage for specific conditions. This has interested a variety of stakeholders, as illustrated by the partnership between pharmaceutical manufacturer Roche, state-owned insurance company PICC and private reinsurer Swiss Re to offer an oncology-specific insurance.

**Figure 34: Inadequate BMI Reimbursement Has Led to Increasing Demand for Private Insurance**



<sup>48</sup> Ministry of Health, 2012 China Health Care Development Report, 2012.

<sup>49</sup> Ministry of Health, China Health Care Industry Whitepaper, 2012.

Figure 35: Relationship Between Public and Private Health Insurance

Private insurance offerings have focused on providing supplemental coverage and services to patients

	More treatment options	Complex diseases	Flexible reimbursement rules	Convenient filing process	Reduced financial burden
<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Supplemental</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Private Health Insurance</div>	Import & rehabilitation drugs; outpatient costs; examinations;	Serious, chronic and rare diseases e.g., cancer, diabetes	Ranges depending on patients' needs	Single receipt or physician diagnosis to insurer	Prepaid or postpaid, depending on types
<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Fundamental</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Public Health Insurance</div>	<b>Basic treatment options</b> Basic Medical Care Insurance Medicine; inpatient costs	<b>Common diseases</b> Common diseases e.g., influenza	<b>Strict reimbursement rules</b> A type reimbursed in total, B type 80%	<b>Complicated filing process</b> Multiple receipts to company and health care center	<b>High financial burden</b> Only postpaid available

Source: Company websites

#### Structure of the private health care system

Like the multi-tier provision system to be implemented in China, a multi-tiered system in health insurance is emerging.

The private insurance industry has grown at an 18% CAGR since 2007<sup>50</sup>, and the number of provinces boasting insurance premium enrollment of over 1 billion RMB increased from 15 in 2007 to 26 by 2012<sup>51</sup>. Another trend within these numbers is the significant growth of high-end insurance products, providing patients with access to high-end private facilities or public VIPs. This, in turn, drives the growth of private health care provider investment.

Going forward, the majority of growth will likely come from a mix of government and corporate driven purchases, along with individuals seeking their own coverage. Going back to the multi-tiered framework, private health insurance is expected to grow in all three levels:

**Fundamental:** In recent months the NHFPC has encouraged local governments to improve coverage and operational efficiency of public insurance schemes by collaborating with commercial insurers, such as Taicang County in Jiangsu Province, which has done so with PICC. In addition to the collaboration model on critical illness insurance plans being implemented in most provinces, more collaboration on UEBMI, URBMI and NRCMS is being explored by multiple city governments and commercial insurers.

**Supplemental:** Supplemental commercial insurance has enjoyed strong growth in recent years and now represents 95% of the total private health insurance market. In the

next 3-5 years, this segment is expected to grow steadily and become more integrated with BMI, with main buyers coming from employers looking to increase benefits for their employees.

**High-end:** Although insurers selling high-end products and MNC insurers looking to enter the market have struggled recently to grow their businesses, needs from the mass affluent population for better health care service at affordable cost have driven demand for high-end health insurance products. In the market place, insurers are diversifying their products to meet these needs (for example, newly emerged products offer coverage for patients visiting public hospital VIPs at an annual premium in the 50,000–70,000 RMB range). Coupled with improving consumer income levels, awareness and increasing trends of employer purchases, private insurance will continue to expand for the foreseeable future.

#### Growing a variety of provider types to deliver private care

Most of the growth in private hospitals has come from privatizing large public hospitals, but changing government regulations means increased growth in other segments including:

- Growth in private hospitals driven by private investors
- Specialty hospital chains emerging as a viable business model
- Domestic and foreign players driving expansion of high-end clinics
- Emergence of elderly care facilities
- Increased focus on health management

<sup>50</sup> China Insurance Regulatory Commission.

<sup>51</sup> China Insurance Regulatory Commission.

Figure 36: Evolution of Hospital Privatization

	1997-2001: Development Phase	2001-2006: Continued Growth	2006-2009: Dormant Period	2009-Today: Reactivated Growth
Market Environment	<ul style="list-style-type: none"> <li>Encouragement of private funding and development of private hospitals</li> </ul>	<ul style="list-style-type: none"> <li>China's WTO entry permitted foreign investment and direct competition with public hospitals</li> </ul>	<ul style="list-style-type: none"> <li>Introduction of strict policies in attempt to standardize and control quality of health care</li> </ul>	<ul style="list-style-type: none"> <li>Loosened restrictions on investments and a move towards equal treatment of public and private hospitals</li> </ul>
Privatization Activities	<ul style="list-style-type: none"> <li>Boying Pharma and Phoenix Healthcare Group engaged in management of Class II hospitals</li> </ul>	<ul style="list-style-type: none"> <li>A number of Class II and III hospital acquisitions led by Phoenix and Central America</li> </ul>	<ul style="list-style-type: none"> <li>No significant activities</li> </ul>	<ul style="list-style-type: none"> <li>Variety of investors including equity funds, insurance companies and foreign health care groups</li> </ul>

Source: Monitor Deloitte analysis

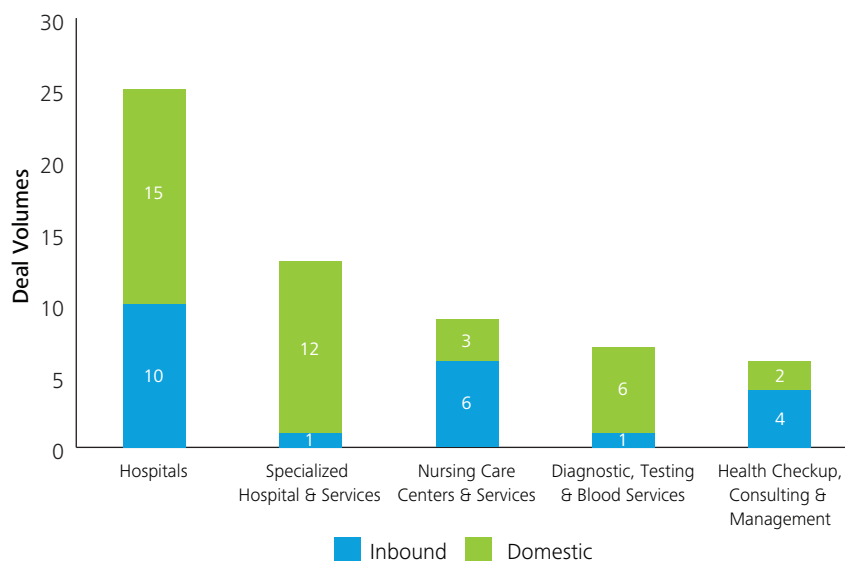
### Growth in private hospitals driven by private investors

Hospital privatization activities have seen a resurgence post-2010, emerging from a dormant period between 2006 and 2009, driven primarily by changes in the policy environment. Significant private capital has been invested from both domestic and foreign investors following retraction of the 70% maximum ownership constraint for foreign companies investing in private health care institutions. As an example, Asia Pacific Medical Group recently acquired two public hospitals — Hengshanhong Obstetrics & Gynecology Hospital in Shanghai, and another public hospital in Beijing<sup>52</sup>. China Resources also recently purchased five hospitals in Henan Province. Most private capital is seeking opportunities to invest in specialty clinics because profitability dynamics with China's general hospitals are currently challenging.

Most investors are not seeking majority stakes in hospitals (Figure 37), but rather smaller proportions of assets. Partial acquisitions have been common because they provide an ability to influence hospital operations while limiting financial and political risk. Future growth in privatization will likely continue in this vein, despite an increasing prevalence of whole asset purchases.

With large private investors acquiring multiple hospitals, a hub-spoke model among private facilities will likely appear. This innovative model helps reduce cost and maintain high quality, while mitigating the risk of lacking sufficient medical resources.

Figure 37: Private M&A Investment Volumes into Chinese Hospitals & Health Institutions (Q1 2003 – Q1 2012)



<sup>52</sup> Zhong KF, People.com.cn, "US Capital Taking Two Public Hospitals under Reform.

Another model being explored by investors is a “hospital management approach.” Under this model a private company would operate the hospital, but would not own the underlying assets (e.g., land, facilities, equipment), all of which would, in essence, be rented from the government or another private party. While not yet a common model, it could generate substantial future growth, particularly for companies looking to operate general hospitals. Shanghai International Medical Center (SIMC), with selected resources from 12 SIMC affiliated hospitals, operated by Pathway Health, is one such example.

To date, little activity has been seen in constructing private care facilities from scratch. Nearly all activity has involved privatizing existing hospital facilities. Moving forward, the available stock of high-quality hospitals suitable for privatization should rapidly dwindle, forcing companies interested in driving private care delivery to construct new facilities. In the next 2 to 3 years most companies looking to expand their private care footprint likely will design and build facilities from scratch.

**Specialty hospital chains are emerging as a viable business model**

Specialized hospital chains have seen significant growth in recent years, growing at a CAGR of 18% since 2006<sup>53</sup>. This growth is especially apparent in popular therapeutic areas such as obstetrics & gynecology (42% CAGR), cosmetic surgery (25%), dermatology (17%) and ophthalmology (15%). This space is dominated by domestic players, due to early entrance, the hospitals’ smaller size / investment requirement, ease of scalability and higher reliance on medical equipment versus physicians. These factors should further the segment’s growth in the future. The first Chinese medical services institution listed on the Shenzhen Exchange, Aier Eye Hospital, is one example illustrating the potential of creating branded, chain-based operations to serve a highly specialized segment of the market.

**Case Study:  
Aier Eye Hospital Group**

Aier Eye Hospital (Aier) holds the leading position in China’s ophthalmology market, having grown its chain of eye hospitals from 10 locations in 2005 to as many as 36 across 21 provinces. The company operates with a “Three Tier Linkage” business model<sup>54</sup> — in which its higher-tiered hospitals provide relatively more comprehensive patient services and technical support for lower-tiered hospitals, which are generally located within regional urban centers. Aier replicates this model across cities in its nationwide expansion. The group’s resource sharing scheme supports overall cost reduction while improving management efficiency.

The rise of such chains is expected to continue as diseases like cancer, diabetes and cardiovascular conditions become more common and the public demands a higher standard of care than the public system may be able to provide.



<sup>53</sup> Bank of China, Prospects of Health Care Services of an Urbanized Society, 2012.

<sup>54</sup> Company website.

### Domestic and foreign players driving expansion of high-end clinics

While most care is delivered in over-crowded facilities, such as large Class III hospitals or smaller clinics with less-experienced physicians, high-end clinics are expanding to serve wealthy Chinese and expatriates. High-end clinics offer an attractive opportunity given their premium price point, low capital investment and relative ease of operations. Due to their target client base, many clinics can charge service fees as high as 40 to 80 times that of public hospitals<sup>55</sup>.

Growth in these clinics has primarily been generated by foreign companies, which make up 90% of the 29 high-end brands in China<sup>56</sup>. Expansion has been driven both through growth of existing clinics and the appearance of new market players. For instance, ParkwayHealth has expanded operations by increasing its capacity through staff additions and acquiring Shanghai Ruixin Hospital Group (previously known as WorldLink). Raffles Medical Group, from Singapore, opened its first clinic in Shanghai in 2010, providing a comprehensive range of services ranging from general medical and dental services to health screening<sup>57</sup>.

Signs hint that the dominance of foreign companies will end as domestic operators begin to focus on this space and foreign and domestic players begin to partner with each other to expand services. One example of this changing dynamic is Fosun Group's partnership with TPG Capital to purchase Chindex, owner of United Family Healthcare which operates high-end hospitals in China's top-tier cities<sup>58</sup>.

The high-end clinic market will likely remain highly fragmented as investors look to build their own brands and take advantage of the segment's high margins. Continued innovation in pricing, service offerings and operational models can be expected as competition in this space accelerates.

### Emergence of elderly care facilities

Elder care institutions represent one of the single largest opportunities in China's private health care market. International and domestic companies are beginning to enter the market to offer high-end home care and assisted living services.

Several foreign companies recently entered the market to provide high-end health care services for seniors, including:

- Singapore-controlled Pinetree Senior Care Services, founded in 2009 and currently offering home care service to over 20,000 seniors
- Sweden-based home care provider Econ-SCA Health Management Co Ltd entered in 2011 to provide high-end senior services across China
- U.S. company, Emeritus Senior Living, entered in 2011 to build high-end facilities for seniors in Shanghai

Growth in private senior care services will continue given recent policy focus and high demand. In 2011, the NHFPC issued new rules to encourage establishment, and improve the quality, of private nursing homes and assisted living. These policy changes have come in the form of mandatory facility upgrades, tax-break incentives, government subsidies and loosened FDI constraints, and have cascaded down to the provincial levels. The Beijing municipal government and Shanghai authorities both announced plans and specific targets for adding nursing homes and adult day-care centers<sup>59</sup>.

Although the senior care sector today is relatively small and focused on the high-income segment, we expect it to grow rapidly and gradually expand to provide care for middle-income patients.

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<sup>55</sup> Company website.

<sup>56</sup> Monitor Deloitte analysis.

<sup>57</sup> Company website.

<sup>58</sup> Bloomberg, Fosun-TPG Agrees to Buy Chindex With Sweetened Bid, 2014.

<sup>59</sup> Wang Hongyi, China Daily, China seeks measures to aid elderly population, 2012.

### Increased focus on health management

Health management, broadly defined as providing proactive care services to both healthy population and patients not under acute care, has gained tremendous attention over the last two years both from the government and private investors. Companies have invested heavily in expanding facilities and establishing networks, mostly in the form of health check-up centers. iKang Healthcare Group, backed by Goldman Sachs and GIC, listed on the NASDAQ in April, aiming to expand beyond its 45 preventative healthcare centers throughout China. iKang's rival, Ciming Health Checkup Management Group, has been eyeing an IPO on the Shenzhen Stock Exchange.

With increased consumer awareness and employers' need to retain talent by offering better benefits, this market will grow. However, aside from offering health check-ups, an innovative operational model has yet to emerge to really integrate health data with clinical information, enabling transformation in the health care ecosystem.

### Despite positive momentum, challenges remain

Given all the developments in government policy, patients, private health insurance and private providers, private health care will remain a growing and attractive market. Nevertheless, to sustain growth over the long-term, several key challenges must be addressed (Figure 38).

These issues remain the largest barriers to continued expansion of the private care market. Without effective solutions, stakeholders for any one of these challenges could effectively derail growth of the private care market.

Some negative market signs have emerged, including expanded social insurance coverage levels that are shrinking the supplemental insurance market, low patient flow at some premium clinics and generally low return on investment and long payback period. The market is still immature, lacking protocol or processes to follow; hence, investors are taking careful steps in assessing and entering the market.

### Potential considerations for pharmaceutical firms

#### Explore unique partnerships

Partnering effectively with private health care providers can provide unique opportunities to pilot physician or patient care programs, or to gather outcomes data about products or services.

#### Assess sales channels

While private health care service remains a small part of the overall health care market, it is growing quickly. Many patients are affluent and can afford western medicine and care. Ensure your sales force and distribution channels are set up to serve the new private clinics, hospitals and elder care facilities.

#### Think beyond product sales

Private providers offer unique opportunities to gather real-life outcomes data, gain practical experience in treating Chinese patients and create new revenue and service opportunities.

#### Consider organic entry

China does not prevent pharmaceutical firms entering health care provision. Opening diabetes clinics, oncology centers or health check-ups could be a lucrative revenue source.

Figure 38: Ongoing Challenges in the Private Health Care Market

Policy Effectiveness	Effective policy changes and execution will need to continue to encourage and balance the growth in both private and public care quality without one overshadowing the other
Patient Flow and Access	Private care affordability and accessibility as well as continued dissatisfaction in public hospitals will determine the level of increase in private patient flow and spending
Data Availability	Current lack of epidemiology and cost data remain the biggest obstacle for private insurers to build effective pricing models and insurance packages to increase affordability
Physician Mobility	Public and private policies will need to appropriately address physician needs and concerns in order to improve physician and overall treatment quality at private institutions
Overall Profitability	Overall profitability needs to be attractive to domestic and international private funds, providers and insurers to encourage additional investment

# Conclusion

*As pharmaceutical companies look to the future in China there is only one certainty: change.*

*In this environment, decisive action will be required as companies seek to evolve their customer model, reach new markets and gain access at all levels of the health care system both public and private. While a more cautious approach may seem like a viable strategy in the short-term, companies who pursue this will find the market shaping them vs. being able to shape the market*

*Fortune favors the bold, and companies who act now to shape market will see their fortunes grow as those who do not, will see theirs shrink.*

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