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# Pharma's Next-Billion Patients

*The Impact of Health Care Reform in China, 2009–2011*

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*The Impact of Health Care Reform in China, 2009–2011*

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# AT A GLANCE

The Chinese government has largely achieved the objective of its 2009–2011 program of health care reform: to provide its 1.3 billion people with access to basic health care. Pharmaceutical companies able to navigate the country's fast-emerging markets will be well positioned to reach these "next billion" patients.

### China's New Treatment Markets

China's urban hospitals will continue to be the most important battleground for pharma companies, but two other channels—county hospitals and community health-care centers—will prove increasingly attractive for multinational and local pharma companies alike.

### County Hospitals: The New Battleground

China's county hospitals hold the most potential. The biggest beneficiaries of health care reform, these hospitals are becoming an increasingly important channel for rural patients to receive initial diagnosis and maintenance therapy.

### Community Health-Care Centers: The New Frontier in Urban Areas

Today's CHC market is small, about one-tenth the size of the city hospital market, but it holds considerable potential because of the increasing treatment by these centers of patients with chronic diseases such as diabetes and hypertension.

The Chinese government has largely achieved the objective of its 2009–2011 program of health care reform: to provide its 1.3 billion people with access to basic health care. China invested $125 billion in this effort, with a special focus on the "next billion"—the 400 million urban unemployed and the more than 650 million inhabitants of rural areas. Today about 96 percent of China's population has public health-care insurance, and per capita payouts by the country's insurance fund have more than doubled in the past three years.

Not surprisingly given these developments, China's market for pharmaceuticals is dynamic and likely to expand greatly in the coming years. To better understand the emerging characteristics of the country's new health-care industry, as well as the size and potential growth of the pharmaceutical market, The Boston Consulting Group recently conducted an in-depth survey of hospital heads, physicians, and patients throughout the country. Over 60 in-person interviews and 900 detailed surveys provided extensive data and reflection points on the changing system. The insights we gathered and present in this report should provide robust input for pharma companies as they develop strategies for accessing and capitalizing on China's growing health-care market.

## China's New Treatment Markets

China's urban hospitals will continue to be the most important battleground for pharma companies, but two other channels—county hospitals and community health-care centers (CHCs)—will prove increasingly attractive to multinational and local pharma companies alike. Both offer great potential and have seen over 30 percent annual growth in the last three years. As the gatekeepers for more than 650 million rural patients, county hospitals have gained the most from the country's reform efforts, while CHCs have quickly become maintenance centers for patients with some chronic diseases; CHCs also play an increasingly important role in initial disease diagnosis and management. However, given the relatively limited affordability of drugs, the geographic dispersion of county hospitals, and the limited number and low price of drugs on the "essential drugs list" (EDL) used in CHCs, pharma companies will be forced to tailor their game plans in order to serve China's next billion.

China's county hospitals and community health-care centers will prove increasingly attractive to multinational and local pharma companies alike.

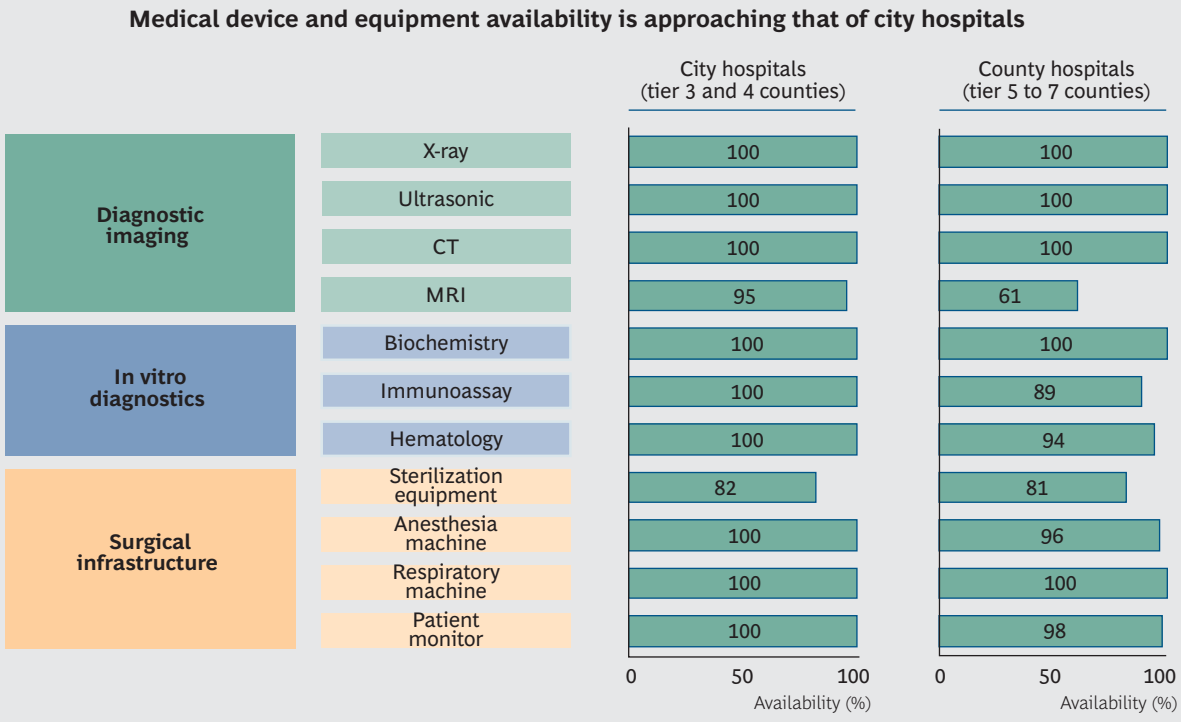
## County Hospitals: The New Battleground

With their huge base of potential patients and rapid growth, China's 10,000 county hospitals—6,000 of which have earned class III, II, or I classification from the

government on the basis of physician qualifications and equipment—hold the greatest promise for pharma companies. Spread across 2,000 cities and counties, these hospitals are becoming an increasingly important channel for rural patients to receive initial diagnosis and maintenance therapy. For instance, more than 50 percent of initial hypertension diagnoses occur in county hospitals. Doctors in these hospitals are also key influencers when it comes to drug choices and change-of-treatment decisions for some diseases, and more than 80 percent of patients refill their prescriptions in county hospitals.

County hospitals have been the biggest beneficiaries of China's health-care reform. With continuous government investment over the last three years, these hospitals have improved their capabilities and seen tremendous growth in the total number of beds and physicians. (See Exhibit 1.) In 2008, China's largest county hospitals had about 300 beds and 150 physicians each; now the largest ones can have as many as 550 beds and 200 physicians. Moreover, China's counties are themselves growing rapidly because of urbanization. By 2020, population and economic growth will drive the emergence of "megacounties" in which about 500 cities will have disposable income per capita as high as that of Shanghai in 2010,

**EXHIBIT 1 | The Capabilities of County Hospitals Have Improved**

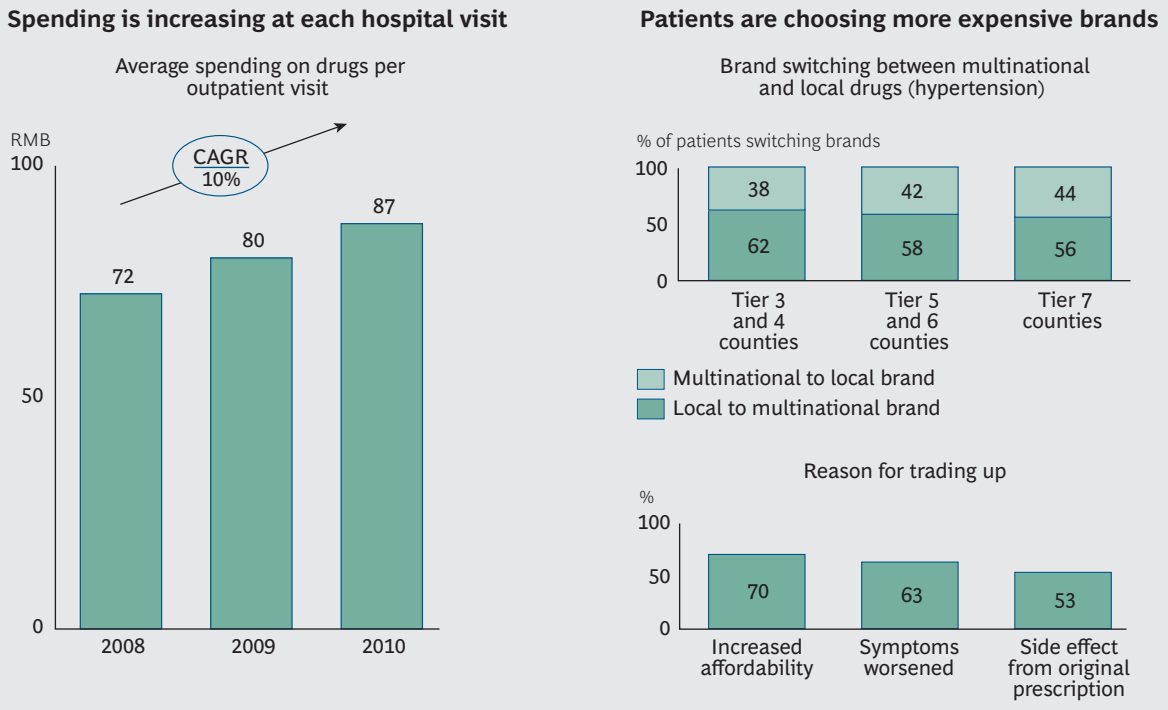



**Source:** BCG research.
**Note:** BCG's city- and county-tier classifications are based on populations projected for 2015 with monthly household income greater than RMB 6,500 (i.e., middle class and affluent, or MAC, populations). Tier 1 includes the 12 largest cities, with MAC populations greater than 3 million; tier 2 covers 25 cities, with MAC populations of 1 million to 3 million; tier 3 includes 31 cities, with MAC populations of 400,000 to 1 million. The remaining tiers comprise a mix of smaller cities and rural counties (collectively designated in this report as counties): tier 4 = 103 cities/counties with MAC populations of 200,000 to 400,000; tier 5 = 337 cities/counties with MAC populations of 100,000 to 200,000; tier 6 = 760 counties with MAC populations of 30,000 to 100,000; tier 7 = 1,015 counties with MAC populations of less than 30,000.

and 650 cities will have populations of more than 500,000. Our analysis indicates that, if development continues at the current rate, the county hospital market in 2015 will reach 80 percent of the size of the city hospital market in 2010, or about RMB 280 billion. By 2020, it will be 1.6 times the size of the 2010 city-hospital market. By 2020, about 500 of these rural hospitals will attain class III status—the designation applied to China's largest hospitals.

The Chinese government has stated that county hospitals should eventually address 90 percent of the population's major illnesses. County hospitals are piloting public-hospital reform with a zero-markup policy on drug sales and higher treatment fees. The improving condition of county hospitals and the increasing affordability of drugs are driving a growing interest among patients in trading up to higher-priced brands manufactured by multinational companies. (See Exhibit 2.) For example, of all the hypertension patients who have switched drug prescriptions in the last two years, close to 60 percent switched from a local to a multinational brand. Rising patient volumes and per patient spending, as well as the trading-up trend, are making county hospitals increasingly attractive to pharma companies.

## Exhibit 2 | The Rising Affordability of Drugs Is Driving a Trading-Up Trend

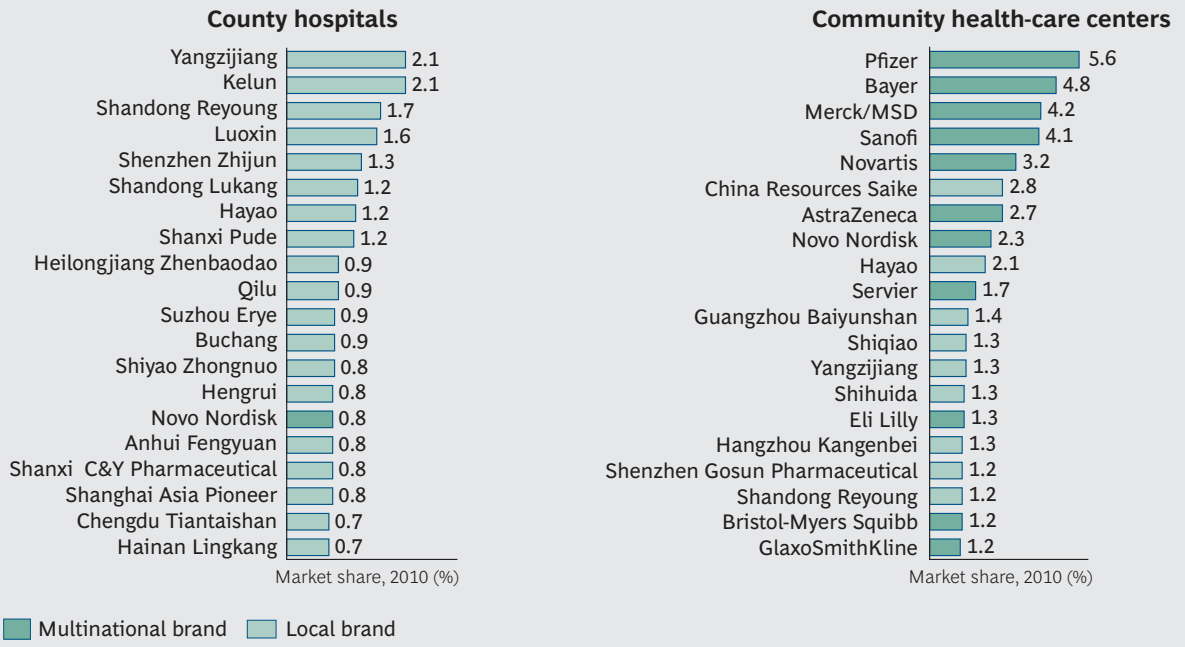



**Sources:** Chinese Ministry of Health; BCG research.
**Note:** BCG's city- and county-tier classifications are based on populations projected for 2015 with monthly household income greater than RMB 6,500 (i.e., middle class and affluent, or MAC, populations). Tier 1 includes the 12 largest cities, with MAC populations greater than 3 million; tier 2 covers 25 cities, with MAC populations of 1 million to 3 million; tier 3 includes 31 cities, with MAC populations of 400,000 to 1 million. The remaining tiers comprise a mix of smaller cities and rural counties (collectively designated in this report as counties): tier 4 = 103 cities/counties with MAC populations of 200,000 to 400,000; tier 5 = 337 cities/counties with MAC populations of 100,000 to 200,000; tier 6 = 760 counties with MAC populations of 30,000 to 100,000; tier 7 = 1,015 counties with MAC populations of less than 30,000.

As a result, pharmas are investing in sales, marketing, and training of physicians and staff. According to our survey, drugs from Bayer and AstraZeneca are already present in about 30 percent of China's counties. In some drug categories, multinational players have achieved leadership positions, especially in the larger, more developed counties. But overall, the market is quite fragmented and dominated by local pharma companies. (See Exhibit 3.) The top ten companies account for only about 15 percent of the total market share, and Novo Nordisk is the only multinational pharma company that is ranked among the top 20 companies in the county hospital market.

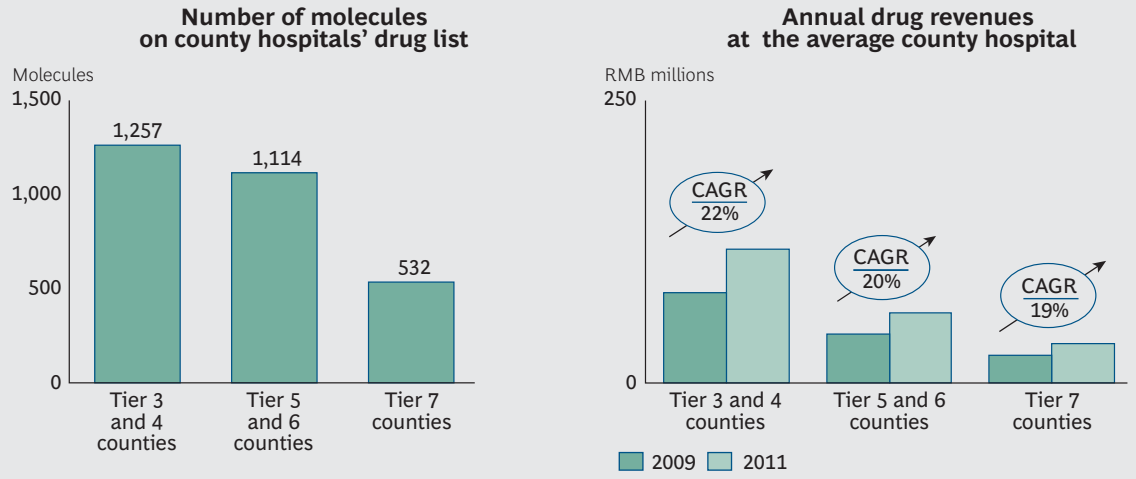
Despite its potential, the county hospital market presents a number of challenges. While growth is imminent, these rural hospitals are much more geographically dispersed and are characterized by much wider regional variations and uneven development than city hospitals. (See Exhibit 4.) Drug reimbursement poses another barrier in the near to medium term, especially for expensive drugs from multinationals. About 40 to 60 percent of county hospital patients are covered by medical insurance offered through the New Rural Cooperative Medical System (NRCMS), which has a patient self-pay ratio as high as 80 percent for outpatient services (compared with 20 percent, on average, for city dwellers covered under Urban Employee Basic Medical Insurance, or UEBMI), and per capita payouts as low as RMB 200 (compared with RMB 1,500 for UEBMI). In the future, incomes in small towns and counties will grow faster than in large urban areas, but the drug affordability gap relative to cities will remain, as will the gap between UEBMI and NRCMS premiums and benefits.

**Exhibit 3 | Local Brands Dominate in County Hospitals, but Penetration by Multinational Brands Is High in Community Health-Care Centers**




**Source:** BCG county-hospital and CHC database.

## Exhibit 4 | Development at County Hospitals Is Uneven




**Source:** BCG research.
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The county hospital market has long been the turf of local Chinese pharma companies. In our recent projection sampling of drug sales in county hospitals across the country, 19 of the top 20 companies in terms of sales volume were Chinese. For example, Yangzijiang Pharmaceutical Group covers over 1,500 counties with more than 1,000 of its own sales reps, who do little marketing but carry complete product lines and are fully responsible for hospital listing, inventory management, and sales promotion. Local players usually have better coverage of the county hospital market than multinational companies, as well as better economics due to a low-cost sales force and a large, affordable portfolio of generics well suited to the market.

Multinational pharma companies that hope to win in the county hospital market must adapt their portfolios and commercial models. Specifically, they must bear in mind the following:

- *Portfolio matters.* Multinational companies will need a broad range of products that can be tailored to local markets and a special focus on low-price generics and mature products with lower price premiums.

- *Segmentation helps economics.* Like city hospitals, county hospitals vary greatly in size and sophistication. Hospitals in the larger counties treat far more patients and sell two to four times more drugs than hospitals in less developed areas. Brand selection is also greater in large county hospitals, with two to three brands per molecule. Given the geographic dispersion of county hospitals in general, a cost-effective commercial model that easily adapts to local demand and economics is critical.

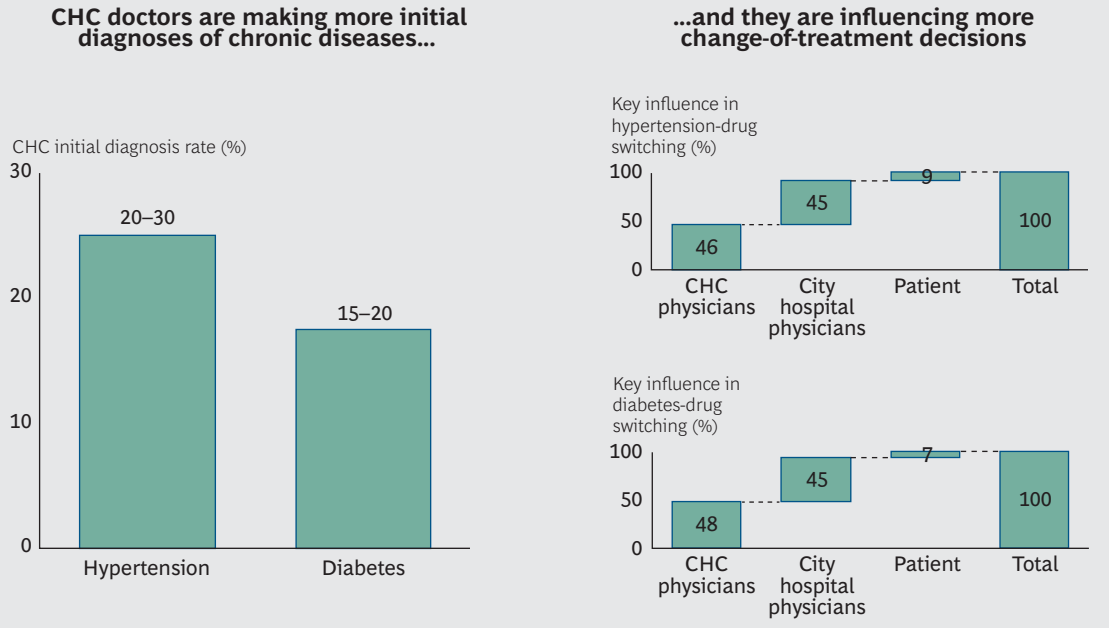
Local pharma companies will face strong competition from multinational companies, which are flexing their sales and marketing muscles in the county hospitals and starting to introduce selected off-patent originator or branded generics. To compete more effectively against them, local companies must catch up on physician education and services as well as brand marketing.

## Community Health-Care Centers: The New Frontier in Urban Areas

Today's CHC market is small, about one-tenth the size of the city hospital market, but it holds considerable potential because of the increasing treatment by these facilities of patients with chronic diseases such as diabetes and hypertension. Sales of drugs for chronic conditions are now as much as one-quarter of equivalent sales in city hospitals, and by 2020 are expected to reach one-half of city hospitals' equivalent 2010 sales. Many of the CHC heads whom we interviewed were quite optimistic about the future growth of their centers, attributing it to growing outpatient reimbursement for unemployed urban dwellers and government policies that have resulted in lower drug prices in CHCs than in city hospitals.

Besides purchasing a growing volume of drugs, CHCs and their doctors are playing an expanded role in the diagnosis and management of chronic diseases. (See Exhibit 5.) Instead of just refilling prescriptions, CHC doctors are making some initial diagnoses and are participating in disease management—and they are influencing the brands chosen in drug treatments. Close to 80 percent of hyperten-

**Exhibit 5 | Doctors Have an Expanding Role in Patient Care at Community Health-Care Centers**




**Source:** BCG research.

sion patients who regularly visit CHCs have switched prescriptions since their initial diagnosis, and half have switched more than once. CHC doctors report being responsible for about half of these shifts. In addition, our data indicate that more people have switched from local to multinational brands in China's 30 richest cities.

According to government policy, CHCs must use either the national or the applicable provincial version of the essential drugs list. But achieving 100 percent EDL compliance is virtually impossible, since EDL drugs are of insufficient variety to meet all patient needs, and government funding doesn't fully compensate for revenue losses resulting from the zero-markup policy. From 2010 to 2012, some cities allowed the use of non-EDL drugs, although sales were not to exceed 30 percent, and some cities supplemented the national and provincial EDLs with city-level EDL drugs. In Hangzhou and Hefei, for instance, non-EDL drugs are permitted, and drug usage patterns tend to mirror those of the city hospitals. Guangzhou and Chengdu have expanded the national and provincial EDLs with city-level EDL drugs. In cities whose policy is to use only national or provincial EDL drugs, non-EDL drugs are still an inconvenient truth. But with the introduction in 2012 of an expanded EDL and revised policies, the use of non-EDL drugs will decline. Still, non-EDL drugs are expected to account for a significant portion of the CHC market until 2015.

The CHC market is more consolidated than the city hospital market, and the penetration of multinational-brand drugs is higher, especially in the larger cities.

With the top ten pharma companies accounting for one-third of the total CHC market value, this market is more consolidated than the city hospital market, and the penetration of multinational-brand drugs is higher, especially in the larger cities, where major multinationals are already investing in sales, marketing, and training. According to our survey, Bayer, AstraZeneca, and Pfizer reps are present in 30 to 50 percent of CHCs in the 40 wealthiest cities in China and have spent the largest amounts on CHC physician training. According to the CHC physicians we surveyed, 40 to 50 percent of the CHCs in these cities have at some point received training support from those companies. Outside of the top 40 cities, coverage and spending by multinationals are significantly smaller, and less than 10 percent of CHCs report receiving any attention from these companies.

Despite the growing number of CHC patients and the rapid growth of CHCs, this market presents even more challenges than the county hospital market. Its sheer size and fragmentation is the first hurdle that pharma manufacturers face as they seek to establish and expand their presence. There are currently around 8,000 CHCs and 25,000 smaller community health-care stations in China. The number of CHCs is expected to rise through 2015 as many class II hospitals and below convert to CHCs.

An even bigger problem is the evolving drug policies for CHCs. Many of these—such as the mandatory use of EDL drugs, zero-markup requirements, and policies that result in insufficient government subsidies—lack consistency or are impossible to implement fully. But the tender policy being designed and implemented in each province is the biggest challenge for pharma players. Even when brands don't participate in EDL bidding, they can still be considered and used in non-EDL sectors of a city or in county hospitals. Manufacturers must make painful tradeoffs between competing for the EDL by offering drugs at low prices (which are driven

even lower by provincial EDL-tender policies) and keeping prices high and being excluded from the CHC market.

In areas like Jiangsu province and the Beijing municipality, where the same EDL-tender results apply both to CHCs and to hospitals designated class II and higher, manufacturers face a much tougher decision: offering their drugs at lower prices or bowing out of the market altogether. No matter what the policy requirement is, the EDL market is typically tough to crack for multinational pharmas and for local premium players, as the bidding policies still focus on low price, despite technicalities that are essentially window dressing. However, we are confident that future government policies will consider quality, as the rock-bottom prices for EDL drugs have already raised concerns about safety and supply shortages.

It is expected that the national EDL will be expanded late in 2012 or early in 2013. For multinationals and locals that get their products listed, winning becomes a volume play that depends on gaining access to the provinces with the greatest potential or the highest tender prices. To succeed, companies must identify their key strategic advantages—such as scale, manufacturing capability, and quality—and actively influence and shape China's EDL-tendering policies in key provinces to favor those advantages. It's also important to prioritize the target provinces, taking a pass on those where coverage is minimal or relationships are lacking.

China's commitment to health care reform promises better care and coverage of new patients in urban and rural areas alike. Pharmaceutical companies that can navigate the fast-emerging county-hospital and CHC markets will be well positioned to reach the next-billion patients.

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## For Further Contact

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