"Cancellation of Drug Sale Subsidization for Medical Services and Separation of Drug Sales from Hospitals" (SDSH) will have a major, fundamental and revolutionary impact on China’s healthcare market.
*92%*

Hospitals account for about 92% of Rx sales

P. 4

*26.7% > 22.1%*

Spending is growing faster than income

p. 8

Roland Berger believes that "Cancellation of Drug Sale Subsidization for Medical Services and Separation of Drug Sales from Hospitals" will be substantively and broadly implemented during the 13th Five-Year Plan Period

p. 13
Among the healthcare reform messages explicitly voiced during the 18th National Congress of the Communist Party of China (NCCPC), the Central Government proposed a series of guidelines and core initiatives, among which the "cancellation of drug sale subsidization for medical services and separation of drug sales from hospitals" (SDSH) will have the most profound impact on China's healthcare system. These guidelines and initiatives will replace the profit-driven mechanism by which public hospitals currently operate with a renewed emphasis on their core function as healthcare service providers. Moreover, this policy will also have major, fundamental and revolutionary impacts on the business models and operations of healthcare players, including pharmaceutical companies, medical device manufacturers, distributors, healthcare service providers and retail pharmacies.

The objectives of this paper are to evaluate trends related to the SDSH (Separation of Drug Sales from Hospital) initiative and its enforcement following the 18th NCCPC based on analysis of China's existing pharmaceutical market, which is dominated by prescription (Rx) drugs. In consideration of the existing business models, we also analyze the impact the SDSH initiative will have on major players in the healthcare industry in the foreseeable future and propose forward-looking strategies and responding initiatives that should be undertaken to realize sustainable business growth.
Key characteristics of China's pharmaceutical market

Drug sales

China's pharmaceutical market is dominated by Rx drugs, which account for an approximate 85% share of revenue. In terms of channel distribution, hospitals account for about 92% of Rx sales, and, in particular, over 2/3 of hospital Rx sales comes from Class II and above hospitals in prefecture-level and above cities, over 90% of which are public hospitals. These Class-II-and-above public hospitals are called "big city big hospitals (BCBH)."

Revenue structure of public hospitals

Government policies in China have been encouraging market-oriented operations of public hospitals. Except for appropriations for major infrastructure development and medical equipment, government funding provides zero or very low subsidies for public hospital operations. As a result, public hospitals require other sources of income to support their daily operations. For example, the average Class III public hospital's revenue structure and operational surplus are as follows:

- Revenue structure: ~40% from drug sales, the majority of which is contributed by the 15% drug price markup; medical services contribute a similar amount to the total income as drug sales, mainly because medical services are currently priced at a fairly low level.
- Structure of income surplus: annual surplus from drug sales has consistently shown to be higher than the total surplus, indicating that net income from drug sales is crucial for public hospitals to cover the cost of
think act

Cancellation of Drug Sale Subsidization for Medical Services and Separation of Drug Sales from Hospitals

Roland Berger Strategy Consultants

other services (since public hospitals are non-profit organizations, their surplus can be considered the same as gross profit for commercial enterprises).

This financial structure exemplified by Class III hospitals reflects the current reality of "Drug sales subsidizing medical services" in public hospitals.

Profit-driven characteristics of public hospitals

Since the majority of public hospitals' surpluses come from the 15% drug price markup, they tend to procure and use more expensive drugs. This, in turn, encourages pharmaceutical companies to adopt higher pricing strategies and leads to unnecessarily high drug prices. In addition, market-oriented operations have also led to a profit-chasing mindset in public hospitals.

Sales and marketing models of pharmaceutical companies

As public hospitals are the largest market for Rx drugs, pharmaceutical companies typically hire numerous sales representatives and agents to make frequent hospital and physician visits and conduct various marketing activities. These practices are especially common among big pharma and medical equipment manufacturers, which attempt to enhance BCBH physicians' recognition of their products, keep them up to date and increase prescription volume. This type of "one eye on hospitals, one eye on physicians" sales & marketing model makes labor costs a major component of pharmaceutical companies' operating expenses.

Distributors (incl. agents)

Drug distribution channels are currently controlled by distributors and agents. Although it is written in the 2009 State Council's "Opinions on Improving the Regulation of Centralized Drug Procurement in Medical Institutions" that "centralized drug procurement should be fulfilled by direct bidding from pharmaceutical companies instead of wholesalers," in practice, manufacturers cannot access hospitals without the assistance of drug distributors and agents. Multiple layers of markups in the distribution process push up the terminal drug prices for hospitals. Even large national distributors like Sinopharm, Shanghai Pharma, China Resources Pharma and Jointown Pharma have to rely on local distributors/agents, each with their own distinct local relationships and coverage, to conduct businesses in many regional markets and with large hospitals.

Imbalance between the income and spending for Basic Medical Insurances (BMI)

Gradual universal BMI coverage is promoting the steady increase in spending on basic medical insurances (BMI), including: 1) growing demand for healthcare services as per capita income grows; 2) population aging; 3) the increasing reimbursement ratio of BMI while percentage of out-of-pocket payments for medical services decreases as required by government policies; 4) gradually increasing insurance coverage for major and specialty diseases.

Drug expenditure is a major component and accounts for over 33% of national healthcare spending over the past 5 years, and this percentage has been growing in recent years. Despite constant surpluses in recent years, for both Urban Basic Medical Insurances (UBMIs) and the New Rural Cooperative Medical Insurances (NRCMIs), spending is growing faster than income, which implies increasing pressure on UBMIs and NRCMIs to meet reimbursement needs in the future.
C

Hospital Rx market dominated by city class hospitals (RMB Bn)

<table>
<thead>
<tr>
<th>Year</th>
<th>Large city hospitals</th>
<th>Other hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>32.8%</td>
<td>67.2%</td>
</tr>
<tr>
<td>2013</td>
<td>32.8%</td>
<td>67.2%</td>
</tr>
<tr>
<td>2014E</td>
<td>33.0%</td>
<td>67.0%</td>
</tr>
</tbody>
</table>

Note: City class hospitals include Class II and above hospitals in prefecture-level and above cities; over 90% of them are public hospitals and they are the so-called Big City Big Hospitals (BCBH)

Source: Healthcare Statistics Yearbook, Sinohealth; Roland Berger analysis

D

Revenue structure of average Class III public hospitals (2012)

<table>
<thead>
<tr>
<th>Revenue Structure</th>
<th>2012</th>
<th>2013</th>
<th>2014E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Pharmacy services</td>
<td>40.2%</td>
<td>40.3%</td>
<td>6.8%</td>
</tr>
<tr>
<td>Medical services</td>
<td>67.2%</td>
<td>67.2%</td>
<td>12.7%</td>
</tr>
</tbody>
</table>

Note: Medical services include examination, treatment, surgery, nursing, etc.; others include registration, medical supplies, research, etc.

Source: Healthcare Statistics Yearbook; Roland Berger analysis

E

Surplus from Drug Sales as a percentage of the total surplus for Class III public hospitals (RMB Mn)

<table>
<thead>
<tr>
<th>Year</th>
<th>Surplus from Drug Sales</th>
<th>Other surplus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>152%</td>
<td>-52%</td>
</tr>
<tr>
<td>2011</td>
<td>159%</td>
<td>-59%</td>
</tr>
<tr>
<td>2012</td>
<td>115%</td>
<td>-15%</td>
</tr>
</tbody>
</table>

Source: Healthcare Statistics Yearbook; Roland Berger analysis

F

Pharmacy expenditure as a percentage of the total healthcare spending in China

<table>
<thead>
<tr>
<th>Year</th>
<th>Pharmacy Expenditure as Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>33.5%</td>
</tr>
<tr>
<td>2010</td>
<td>35.1%</td>
</tr>
<tr>
<td>2011</td>
<td>33.9%</td>
</tr>
<tr>
<td>2012</td>
<td>34.7%</td>
</tr>
<tr>
<td>2013</td>
<td>36.2%</td>
</tr>
</tbody>
</table>

Source: National Bureau of Statistics, Sinohealth; Roland Berger analysis
UBMI income/spending (RMB Bn)

<table>
<thead>
<tr>
<th>Year</th>
<th>Income</th>
<th>Spending</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>304</td>
<td>208</td>
</tr>
<tr>
<td>2009</td>
<td>367</td>
<td>280</td>
</tr>
<tr>
<td>2010</td>
<td>431</td>
<td>354</td>
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<td>2011</td>
<td>554</td>
<td>443</td>
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<tr>
<td>2012</td>
<td>694</td>
<td>554</td>
</tr>
<tr>
<td>2013</td>
<td>825</td>
<td>680</td>
</tr>
</tbody>
</table>

CAGR = 26.7%

CAGR = 22.1%

Source: National Bureau of Statistics; Roland Berger analysis

NRCMI income/spending (RMB Bn)

<table>
<thead>
<tr>
<th>Year</th>
<th>Income</th>
<th>Spending</th>
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</thead>
<tbody>
<tr>
<td>2008</td>
<td>79</td>
<td>66</td>
</tr>
<tr>
<td>2009</td>
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<td>205</td>
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<td>2012</td>
<td>248</td>
<td>241</td>
</tr>
<tr>
<td>2013</td>
<td>297</td>
<td>291</td>
</tr>
</tbody>
</table>

CAGR = 34.5%

CAGR = 30.5%

Source: National Bureau of Statistics; Roland Berger analysis
**Regulatory evolution of SDSH ("Separation of Drug Sales from Hospitals")**

<table>
<thead>
<tr>
<th>Year</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>Concept of separation of pharmacy from medical services: &quot;Decisions on Healthcare Reform and Development&quot; stated that &quot;incomes/expenditures for medical services and pharmacy operations should be separately accounted and managed&quot;.</td>
</tr>
<tr>
<td>2000</td>
<td>First pilots for the reform: Xi’ning, Qingdao and Liuzhou selected as pilot cities; outpatient pharmacies would be separated from pilot hospitals.</td>
</tr>
<tr>
<td>2002</td>
<td>Separate management of income and expenditure for the hospital pharmacy business: surplus should be turned over to administrative agencies and managed in dedicated fiscal accounts.</td>
</tr>
<tr>
<td>2006</td>
<td>Formalization of drug price markups: &quot;Opinions on Further Rectifying the Prices for Drugs and Medical Services&quot; allowed county-level and above hospitals to price drugs with a markup of no more than 15% over the actual procurement price.</td>
</tr>
<tr>
<td>2009</td>
<td>Icebreaking of the new reform: compensation mechanism reform for public hospitals proposed in &quot;Opinions on Deepening the Medical and Health System Reforms&quot;; future compensation will come from 2 channels (services and financial subsidy) instead of 3 channels (services, drug price markups, financial subsidy).</td>
</tr>
<tr>
<td>2011</td>
<td>Pilot reforms of city public hospital: first batch of 17 pilot cities selected, Beijing, Anshan, Wuhu and Maanshan selected as key pilot cities for compensation mechanism reform.</td>
</tr>
<tr>
<td>2012</td>
<td>Reforms in the fortified zones: number of pilot counties for county-level public hospital reforms increased to 1011; pilots for city public hospital reforms increased to 34 cities. &quot;Key Tasks for Deepening the Medical and Health System Reforms in 2014&quot; proposed for the first time to &quot;take multiple strategies to promote the separation of pharmacies from hospitals and encourage the development and chained operations of retail pharmacies&quot;.</td>
</tr>
<tr>
<td>2014</td>
<td>County-level public hospitals included for the reform: first batch of pilots includes 311 counties.</td>
</tr>
</tbody>
</table>

Source: Agency websites, desktop research; Roland Berger analysis.
Infancy stage – 1997~2002

Policies for the separation of hospital pharmacies from medical services started with the "Decisions on Healthcare Reform and Development" issued by the CPC (Communist Party of China) Central Committee and the State Council in 1997. It was proposed "...to adjust the revenue structure and decrease the contribution of pharmacy income for medical institutions, to appropriately control the increase of medical expenses, and to separately account for and manage income/expenditures for medical services and pharmacy operations." However, the Decision did not specify the government agency that would be in charge of hospital pharmacy income/expenditure management.

In 2000, the System Reform Office of the State Council and other departments promulgated the "Guiding Opinions on Urban Medical and Health System Reforms," which again emphasized the necessity of separate management of income and expenditure for the pharmacy business in hospitals. The "Opinions" proposed that the income surplus should be turned over to the healthcare administrative agency and managed in a dedicated fiscal account, where it would be mainly used for medical cost compensation, community health services, preventive healthcare, etc. Meanwhile, according to the proposal, financial subsidies and prices for medical services should be adjusted to compensate for the reduction of pharmacy income, eventually transforming outpatient pharmacies inside hospitals into retail pharmacies. Based on the "Opinions," the Ministry of Health (MOH) and the Ministry of Finance (MOF) formulated the "Interim Measures for the Separate Management of Pharmacy Income and Expenditure in Hospitals," which laid down concrete instructions for the separation of pharmacy operations from medical services in public hospitals.

Piloting and incubation stage – 2002~2009

Spinoff of outpatient pharmacies led to a sharp decline in the contribution of drug income to hospital revenue. For example, the percentage of drug revenue decreased from 70% before the pilot hospitals to less than 49% in 2004 in the 7 pilot provincial hospitals in Xi'ning. Moreover, since physicians' incomes were unlinked from drug markups in pilot hospitals, there was a remarkable improvement in rational use of medicines.

On the other hand, to ensure the daily hospital operations and physician remuneration would be covered, loss of the drug revenue needed to be replaced by other funding sources, which included financial subsidies and income from medical services. As prices for medical services were tightly regulated by price control agencies, the majority of revenue compensation had to come from government subsidies in the early stage of pharmacy/medical care separation. It was estimated that the total revenue loss from outpatient pharmacies during the first year amounted to RMB 113 million in pilot hospitals in Xi'ning and resulted in an annual need for financial aid of over RMB 35 million. Despite investments by the MOF (Ministry of Finance), most pilot hospitals suffered from a funding shortage due to insufficient government support. Due to similar reasons, the pilot projects in Qingdao and Liuzhou also failed to make a large impact.

To rectify the pharmaceutical market and excessive drug price markups by hospitals, the National Development and Reform Commission (NDRC) and MOH issued their "Opinions on Further Rectifying the Prices for Drugs and Medical Services" in 2006, which allowed healthcare organizations at the county-level and above to price drugs at a markup of no more than 15% over the actual procurement price. Although this policy was a practical measure to regulate the disorderly pharmaceutical market, it also justified the existence of drug price markups and formalized the subsidization of medical services with drug sales.
within hospital.

To summarize, due to the lack of supporting policies, insufficient financial support and the aggressive goal of fully dissociating outpatient pharmacies from hospitals, no significant progress was achieved in pharmacy/medical services separation reform during this period. At the same time, however, a new round of medical reform was brewing.

**Icebreaking stage – 2009~2012**

In 2009, the CPC Central Committee and the State Council promulgated the "Opinions on Deepening the Medical and Health System Reforms," which set pilot reforms for public hospitals as a key task for the following three years. The major compensation mechanism reforms in public hospitals revolved around gradual cancellation of drug price markups, promotion of pharmacy/hospital separation through differential price markups, establishment of dispensing fees, etc. Supporting policies, which included pricing adjustments for medical services, increasing government spending and improvement of the BMI reimbursement system, aimed to shift public hospital compensation from three channels (services, drug markups and financial subsidies) to two channels (services and financial subsidies).

"Guiding Opinions on Reform for Pilot Public Hospitals," a document issued in 2010, defined the first 16 pilot cities where urban public hospital reform would be enacted (Beijing was included as the 17th pilot city in 2011), covering the areas of management, compensation, operation, supervision, etc. Beijing, Anshan, Wuhu and Maanshan were selected as key pilot cities for compensation mechanism reform, implying a fresh start for the separation of pharmacies from medical services in hospitals.

As for the situations in pilot cities, Beijing achieved preliminary success as indicated by a decrease in drug spending and out-of-pocket payments as a proportion of total medical costs as well as by lowered per-visit costs. This was achieved by completely replacing drug markups with a dispensing fee and introducing supporting policies such as insurance coverage for the dispensing fee and BMI budget pre-payment. Moreover, replacing drug markups with a dispensing fee effectively compensated the hospitals for lost income and improved the quality of medical services. In other cities, however, factors such as insufficient compensation for medical service income, unsatisfactory compensation for soon-to-be-separated pharmacy staff and varied government fiscal situations (direct financial subsidies and BMI spending), public hospitals received insufficient compensation, which posed a critical challenge to drug/medical service separation reform and slowed the overall progress of reform.

**From fortified stage to "Deep Water" – 2012~present**

With the promulgation of the "Planning and Implementation Programs for Deepening Medical and Health System Reforms during the 12th 5-Year Plan" in 2012, reforms for public hospitals began to accelerate, especially after the 18th NCCPC (National Congress of CPC). "Opinions on Comprehensive Reforms for Pilot County-Level Public Hospitals" by the State Council formally incorporated county hospitals into pilot programs for public hospital reform and defined 311 counties as sites for the first batch of pilot programs. By 2014, the number of sites increased to 1011 counties, covering 50% of all counties nationwide and 500 million rural residents. At the same time, the number cities designated for urban public pilot hospitals rose to 34.

As an integral part of the public hospital reform, policies on the separation of hospital pharmacies and medical services were further reinforced during this period. "Key Tasks for Deepening the Medical and Health System Reforms in 2014" proposed for the first time "...to use multiple strategies to promote the separation of pharmacies from hospitals and encourage the development and chained operations of retail pharmacies." The "Notice on the Implementation of Key Tasks for the Medical and Health System
Reforms in 2014 and Improvement of the Quality and Efficiency of Drug Distribution Services" issued by the Ministry of Commerce and other government bodies further clarified a plan "to explore multiple forms of reform such that outpatient pharmacies in medical institutions and related professional services can be undertaken by large-sized retail pharmacies and strict quality control can be ensured, well-established drug dispensing services can be provided by certified pharmacists and excellent credit records can be established." Compared to merely eliminating drug markups, these measures aim to further abolish the economic relationship between hospitals and pharmaceutical companies, and to set a direction for future reforms.

Meanwhile, attention from the top leadership on pharmacy/medical service separation and drug cost reduction will be a strong impetus for further deepening the reforms. At an April 2014 State Council Meeting, Prime Minister Li Keqiang emphasized that the elimination of pharmacy profits as a subsidy for medical services is still a key challenge for county-level public hospital reform; he also explicitly raised concerns about the "overly low prices for medical services." In a November 2014 State Council Meeting, Premier Li Keqiang pointed out that the current medical service prices are too low. As drug prices are adjusted, pricing for medical services will also be rationalized to reflect the true value of the services provided by healthcare professionals.

"SDSH" regulatory outlook from Roland Berger

Considering the policy trends over the past decade and the overall state of reform, Roland Berger believes that "cancelling the subsidization of medical services with drug sales and separation of drug sales from hospitals" will be substantively and broadly implemented as part of the 13th 5-Year Plan. We anticipate that:

> Several provinces, cities and public medical institutions (Class III/II hospitals and community healthcare centers [CHCs]) will be selected as pilots for the comprehensive and complete "cancellation of pharmacy-subsidized medical care and separation of pharmacy operations from medical services."

> Multi-dimensional pilot programs will be launched in multiple hospitals in multiple regions. Major goals for these pilots include the smooth transformation of the revenue structure as well as increased transparency and rationalization in compensation for healthcare professionals to be realized by balancing decreased pharmacy income with increased medical service income and financial subsidies.

> City/province-wide implementation of the reform will be based on the successful experiences of pilot hospitals.

> Substantive and comprehensive nationwide implementation will come when the timing is appropriate.


Industry insights

The mounting pressure for Basic Medical Insurances (BMI) reimbursement is the core driver of the SDSH initiative. It is estimated that annual BMI surpluses in some provinces will only be sufficient to cover one quarter of spending next year. The government is fully aware of this macro trend and the severity of the issue. The promulgation of policies such as "lump-sum prepayment," "payment by illness type or by patient" and "payment based on clinical procedures" implies that the government will take on the role of healthcare manager rather than merely serving as a funding provider or payor.

SDSH reform will revolutionize the healthcare market in several ways. Firstly, the healthcare industry chain will undergo restructuring: both the direction and volume of medicine flow will be dramatically changed. Secondly, medical services will become de-centralized as market-oriented departments are separated from public hospitals. Private hospitals will develop rapidly, which will lead to improvements in care efficiency.

Thirdly, the role of prescriptions will be radically changed. For example, if 50% of current outpatient prescriptions, valued at around RMB 250 billion, are filled on e-commerce platforms, it will create a huge on-line volume. Online Rx drug sales will be gradually allowed, with drugs to treat chronic disease leading the way.

Finally, drug distributors without a retail pharmacy presence will be at a disadvantage, while distributors that have strong retail presences will not be severely affected.

In response to the changes caused by SDSH reform, pharmaceutical companies need to make several important preparations. Firstly, they should adjust their management structure in order to integrate decision-making for sales, pricing, promotion and tendering. Secondly, as the government makes structural changes to the pharmaceutical market, which is now close to saturation and experiencing slowing growth, overtreatment and over-prescription of drugs will be the next target for crackdowns. We expect to see dramatic changes in the top 10 list of best-selling drugs. Pharmaceutical companies should identify these structural changes and create new market opportunities: relationship-based marketing, for example, will be fundamentally transformed. Finally, pharmaceutical companies need to develop two capabilities: 1) the adaptability to manage multiple market models and distribution channels; 2) a direct patient interface integrating both chronic disease management services and products. For example, Tasly is the first drug distributor in China to deliver drugs for chronic disease (such hypertension, diabetes, etc.) directly to end-user households and establish a patient database in the process. Moreover, optional services such as follow-up visits, disease data collection and additional services provided by app could be provided to mid/high-income patients in the future to build up patient relationships and further enhance health management capabilities.

Kaijing Yan
Chairman of Tasly Pharmaceutical Group
Impact on healthcare players

SDSH ("Separation of Drug Sales from Hospitals") will have a major, substantial and revolutionary impact on China’s healthcare market, resulting in the following core outcomes:

> Outpatient pharmacies will be fully separated from medical service organizations, while only inpatient and emergency pharmacies will be retained in hospital.
> Patients themselves will decide on the channel (online or retail pharmacies) through which they fill and pay for prescriptions from physicians at their convenience.
> Retail pharmacies will replace large public hospitals as the largest purchasers (for manufacturers and distributors) and the main channel (for patients) in the huge outpatient Rx market.
> Retail pharmacies will be the main channel for patients’ out-of-pocket Rx payments as well as reimbursements by BMIs and commercial insurers.

Major challenges to MNC pharmaceutical companies

> The current business (sales and marketing) model will face major challenges. MNC pharmaceuticals' traditional advantage lies in the BCBH market, whereas the "broad market" (hospitals and pharmacies in lower-tier cities) is dominated by local competitors.
> The existing go-to-market model used by MNCs will likely "collapse" as the existing Rx market will shift from BCBH to the retail pharmacy channel, creating a drug market that is more decentralized and dispersed. The traditional go-to-market model of targeting a few large clients will be replaced by a model that can effectively engage a large number of smaller clients.
> The central characteristics of the current business model are: S&M activities mainly aim to increase the volume of outpatient prescriptions; BCBHs are the major clients, and pharmacies serve as supplementary channels; hospitals and physicians are the main targets of marketing activities, which can be described as "one eye on hospitals, one eye on physicians" and which requires a large number of sales representatives and local agents; labor costs are the largest contributor to operating expenses.

"Mixed impacts" for domestic pharmaceutical companies

> In contrast to MNCs, local pharmaceutical companies have a strong presence in the broad market, but have weak performances in the BCBH channel.
> Local companies specializing in high-value patented drugs will face similar challenges as MNCs given that BCBHs are the focus of their patented drug business.
> Nonetheless, the advantages of local pharma in the broad market still depends on partnerships with distributors and agents to access local public hospitals. This S&M model will also collapse along with the channel transition of the existing Rx market.
Rapid growth opportunities for medical equipment and device manufacturers

> Separation of outpatient Rx sales from hospitals will encourage hospitals to focus on their core roles as healthcare service providers, which will be largely reflected in their use of medical devices and equipment.
> Healthcare service organizations’ focus will shift from "drug driven treatment" to "drug and medical service driven treatment." The quality, range and pricing for medical services will be improved, and this will, in turn, promote the application, utilization and consumption of medical equipment, devices and supplies.
> "Before-admission preventive diagnosis/treatment" and "after-discharge rehabilitation & care" will be emphasized in medical institutions, which will promote the utilization and consumption of preventive and rehabilitative medical equipment, devices and supplies.

Serious threat to the survival of drug distributors

> The Rx market’s channel transition from hospitals to retail pharmacies will result in a significant decline in the value of drug distributors and agents in the hospital channel. Since manufacturers will contract directly with retail and online pharmacies, their reliance on traditional distributors will be largely reduced.
> The channel shift in Rx sales will wipe out the margins for small and medium-sized local distributors and agents, which will further accelerate the concentration of the drug distribution industry.
> Both large national distributors and small and medium-sized local agents will face serious challenges to their "value-proposition repositioning" and "survival strategy."
**Significant revenue structure change as hospitals go back to basics as "healthcare service providers"**

- Hospitals will lose a major revenue source once the outpatient pharmacy is separated, even though emergency and inpatient pharmacies will still be retained in hospital.
- Public hospitals, especially large Class III hospitals will have to change their current "drug-driven treatments" and return to their basic and original role as "healthcare service providers."
- Effectively replacing the revenue lost from drug sales with sufficient financial subsidies and increased income from medical services will be a key challenge for public hospitals.

**Great growth opportunity for retail pharmacies**

- Because large public hospitals will be replaced by retail pharmacies as the major purchasers and main channel for the huge volume of outpatient Rx sales, there will be substantial opportunities for the development of the retail pharmacy industry.
- This transformation will dramatically boost the size and profitability of retail pharmacies and earn the retail pharmacy industry an unprecedented leading position in the drug sales market.

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**Impacts of SDSH – "Separation of Drug Sales from Hospitals" on healthcare companies**

<table>
<thead>
<tr>
<th>IMPACT</th>
<th>Up-stream (manufacturing)</th>
<th>Mid-stream (wholesale &amp; distribution)</th>
<th>Down-stream (healthcare services)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MNC Pharmaco</td>
<td>-</td>
<td>Wholesale</td>
<td>Public Hospital</td>
</tr>
<tr>
<td>Local Pharmaco</td>
<td>+</td>
<td>HC Logistics</td>
<td>Private Hospital</td>
</tr>
<tr>
<td>Medi-tech</td>
<td>+</td>
<td></td>
<td>Drug Retail</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Emerging HC Service</td>
</tr>
</tbody>
</table>

Source: Roland Berger analysis
Industry insights

SDSH, the "Separation of Drugs Sales from Hospitals" initiative, represents a step in the right direction in principle. Medical service prices should reflect the value of care, and drug prices should reflect the value of the medications. In terms of function, medical services and drugs cannot be separated, as they are must often be used in tandem to provide the best treatment, but commercially they should be treated separately. Physicians have the right to issue prescriptions, but the drugs they prescribe should not be financially bundled together with the services they provide. Physicians' value must once again be defined by the value of their technical skills.

How can SDSH be realized? First of all, medical service fees need to be increased, but the costs should not be passed on to patients entirely. The idea of paying more for medical services should also be introduced to patients. Secondly, public hospitals need to be clearly distinguished from private hospitals. Public hospitals should have two central mandates: 1) to conduct clinical research on technological breakthroughs and complicated diseases; and 2) to provide public welfare services and give medical aid to low-income and in-need patients. Private hospitals, which provide general medical services, should strive to improve the quality of services and care they offer. The government, for its part, should loosen regulations for establishing private hospitals and clinics; for example, commercial registration procedures could be simplified when technical qualifications are met.

The SDSH initiative will drive physicians to "rationally issue prescriptions," but its impact on pharmaceutical companies will be limited because physicians will still have the right to issue prescriptions. However, implementation of SDSH will be very difficult in the short term. For example, there is still the potential for rent-seeking in the implementation of "outpatient pharmacies," and there is the possibility that drug prices will go up instead of down. Also, if SDSH is implemented, hospitals will not be able to monitor the prescriptions written by physicians, which could also potentially push up drug prices. The key to successful implementation lies in designing effective internal mechanisms. Then what is an effective mechanism? First, ensure that physicians earn respectable salaries. Second, institute severe penalties such as license revocation for physicians who do not comply with the rules.

Pfizer began its retail business in China many years ago, and now both our OTC and prescription products are well represented in retail channels. Therefore, the SDSH initiative will have a relatively limited impact on Pfizer's business in China, and we believe Pfizer is already prepared for the coming changes.

Dr. Wu Xiaobing
Regional President, Pfizer China
Roland Berger perspectives – Forward-looking strategies and responding initiatives for healthcare players

- MNC pharmaceutical companies
- Local pharmaceutical companies
- Medical equipment/device manufacturers
- Drug distributors
- Healthcare service providers (hospitals)
- Retail pharmacies
MNC pharmaceutical companies

> Go-to-market strategy transformation: the entry strategy and business model needs to be re-designed for new product launches in the China market, with re-planning and re-allocation spanning channels, organization, human capital and other resources.
> Broad market access readiness: MNCs should carefully investigate the broad market in addition to BCBH, and prepare for the revolutionary changes by re-planning and re-allocating certain resources.
> Channels: the value of the channels controlled by distributors/agents will decline dramatically, so MNCs should collaborate directly with online and large retail pharmacies, as they will become the main channels for Rx sales in the future; MNCs need to improve their business presence and investment in both traditional and online pharmacy channels; partnerships with retail pharmacies in tier-1 and 2 cities as well as large regional markets should be prioritized.
> Hospitals: MNCs should maintain and reinforce their brand advantages and reputation for academic excellence in hospitals and continue with professional academic marketing activities targeting hospitals and physicians, as physicians will retain the right to write outpatient prescriptions.
> Reconsideration of pricing strategy: the reduction of intermediate drug distributors and increased price transparency brought on by online drug retail will further drive the rationalization of drug prices.

Local pharmaceutical companies

> Channels: the value of channels controlled by distributors/agents will decrease dramatically, but local pharmaceutical companies need to further strengthen and expand their existing advantages with retail pharmacies. Partnerships with retail pharmacies in tier 3/4 cities should be prioritized, and then coverage should be selectively extended in tier 1/2 cities.
> The existing leading position in online pharmacies should be further reinforced.
> Local pharma needs to consistently pay attention to and cultivate partnerships with emerging retail pharmacies.
> Hospitals: since physicians will retain the right to write outpatient prescriptions, academic marketing activities should be continuously improved and carried out to target both hospitals and physicians, especially in BCBH.

Medical equipment/device manufacturers

> Plan and investigate business strategies oriented around the following objectives:
  - "going beyond product," extending into services
  - "going beyond treatment," extending into preventive solutions
  - "going beyond the traditional hospital," extending into home care & virtual care
> Comprehensive improvement of products, service models and business portfolios.
> Hospitals: physicians have prescription rights for preventive, outpatient and inpatient medications as well as rehabilitative diagnoses/treatments; therefore, manufacturers need to plan and execute:
  - academic marketing activities to target hospitals and physicians and
  - continuing educational outreach to patients and consumers.

Drug distributors

> Distributors need to adopt a stronger sense of urgency for "business transformation and survival" as well as to re-examine and re-plan their value propositions, business models and service portfolios to address the challenge of creating value in the new market.
> They need to transform their business models from "resource and relationship driven" to "business value creation."
Roland Berger believes there are 4 possible directions drug distributors can take to transform their business models:

- become a retail pharmacy business with increased geographical and online coverage;
- become a dedicated academic marketing organization servicing pharmaceutical companies;
- become a professional pharmaceutical logistics service provider (government policies encourage the development of specialized pharmaceutical logistics services, so drug distributors could increase investment in logistics infrastructure and transform into providers of value-added professional logistics services);
- focus on the medical equipment/device business and become a specialized equipment/device distributor.

Healthcare service providers (hospitals)

- They must shift from "drug-driven treatments" to "drug and medical service driven treatments." Their business positioning and service models need to be re-investigated and re-built.
- In addition to disease treatment, hospitals should also build up and integrate services such as "pre-admission preventive care" and "post-discharge rehabilitative and longer-term care."
- Public medical institutions (especially large Class III hospitals) should investigate and plan how to build up new revenue sources and new service models to utilize "existing brand advantages and expert resources" in the event that additional "financial subsidies and income from medical services" cannot compensate for the dramatic revenue loss from the separation of hospitals and drug sales.
Retail pharmacies

> For retail pharmacies, achieving rapid growth during the 13th 5-Year Plan will depend on:
  - if they can scale up rapidly;
  - if they can obtain the dispensing right for prescriptions from large regional public hospitals;
  - if they can obtain licenses for online drug sales and have access to relevant electronic prescriptions from servicing hospitals.

> Based on these considerations, Roland Berger believes that retail pharmacies should:
  - increase scale and regional coverage through cross-regional M&As;
  - gradually and steadily obtain the dispensing rights for outpatient prescriptions from large regional public hospitals, "city by city" and "region by region;"
  - carefully examine and plan product and service portfolios;
  - improve the standardization of chain operations;
  - actively plan and explore online business models.

### Strategies & initiatives of different parties anticipating SDSH

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<tr>
<td>MNC Pharma</td>
<td>Update go-to-market model; broaden market access; increase retail penetration</td>
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<td>Local Pharma</td>
<td>Solidify retail; enhance online biz; improve BCBH marketing</td>
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<tr>
<td>Medi-tech</td>
<td>Portfolio expansion; go &quot;beyond hospital/treatment/product&quot;</td>
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Note: HC refers healthcare
Source: Roland Berger analysis
I am very supportive to "SDSH – Separation of Drug Sales from Hospital". Physicians has the authority over diagnosis & treatment, but the current "Subsidy of Drug Sales to Medical Services" situation has greatly lessened the importance of physicians' technical expertise, SDSH Initiative will be a break-through improvement to China healthcare system. But the SDSH will have a transition period which will leave time for pharmaceutical companies to change and adapt.

SDSH will eventually be implemented, but there are certainly difficulties in achieving so. The "Subsidy of Drug Sales to Medical Services" is related to both physician and hospital. To implement SDSH, then hospitals' income will decrease, which will also lead to the decrease of some physicians' income. How to realize the respects to physicians' technical expertise, knowledge, competence and education, and how to provide fair status and financial reward to them? Xiu Zheng had once provided "healthcare reform" proposal to central government. And we suggested to categorize physician into different levels, such as from professor-level to entry-level, and then charge high out-patient registration fee for professor-level physician visit and low fee for entry-level physician. The key to SDSH is to have thorough considerations on how to provide financial security to physician and hospital.

SDSH will have tremendous positive impact to pharmaceutical industry. Now many Pharmas are putting too many efforts on "Relationship" with hospitals, but not on core competency. SDSH will eliminate many pharmas. But the large pharmaceutical companies are quite sensitive to regulatory change, and they will transform and adapt, they can "be prepared for danger in times of peace", and they will keep investing in R&D and go-to-market model innovation. For example, many large pharmaceutical companies have recently put many efforts on OTC and big retail.

Xiu Zheng has not paid much attention to hospital as we think there are lack of governance and lack of standard in many hospitals. We have always prioritized our business in the OTC market. The SDSH will impact Xiu Zheng heavily, because now the hospital market will become market-oriented with fair competition, and Xiu Zheng now could enter the hospital market. Xiu Zheng is getting itself prepared proactively.

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Mr. Xiu Yuan
General Manager, Sales & Marketing,
Xiu Zheng Pharmaceutical Group
Concluding remarks

The central government has released clear signals on the "separation of drug sales from hospitals," and Roland Berger believes that this round of reform will be implemented with an unprecedented pace, scope and concentrated effort during the 13th 5-Year Plan. The essential separation of out-patient pharmacy operations from hospitals and the eventual cancellation of hospital subsidization through drug sales will have major, substantial and long-lasting impact on China's healthcare industry. For market players, being well-prepared with forward-looking strategies and proactive responding initiatives may be the only way to ensure future success.
Roland Berger Strategy Consultants

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Further reading

Light Footprint Management: Leadership in Times of Change
In a business environment characterized by volatility, uncertainty, complexity and ambiguity where conventional management methodologies break down, Charles-Edouard Bouée proposes a new way for companies to adapt and survive, drawing on the latest military doctrine and Chinese management style.

Finding the Right Remedy
Optimizing pharmaceutical companies' operational performance despite high costs and a strict regulatory environment

More than thirty years after China’s economic reforms, the advantages of a large population are gradually dissipating and the impact of the global financial crisis is intensifying. These forces, along with recent medical reforms to cut drug prices, have put pressure on China’s domestic pharmaceutical companies to optimize cost structures. Following the unveiling of new production standards, drug makers numbering in the thousands were faced with the challenge of simultaneously raising quality and operational efficiency. The approach to optimization described in this publication focuses on realizing both a transformation of production processes and cost optimization, helping one leading domestic pharmaceutical company save an annualized RMB 50 million in the first round of operational upgrades.

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