CHAPTER 4

Hospital Institutional Context and Funding

Abstract This chapter focuses on hospital ownership and supervision. Public hospitals are mostly, but not always, under the supervision of the Health Ministry. There are a certain number of other governing bodies that are directly involved in the management of hospitals. A cross-ministry group was set up in 2006 to facilitate the implementation of hospital reforms. Apart from the organizational structure, the funding of hospitals and its evolution is studied. Between 1979 and 1991, the government introduced a co-payment system in healthcare establishments. In 1992, the Ministry of Health officially granted greater autonomy to public hospitals. They were authorized to deliver paid services and to make profits, but were made responsible for their losses and debts. By 2003, central government funding had fallen to 8% of the hospital budget. As a result, public hospitals in China behave very similarly to for-profit firms, while being governed as any traditional public structure. The next step is the current experiment of a Diagnostics Related Group-based payment in China. Along with the financial autonomy of public hospitals, different reforms have been directed at developing private hospitals, even though many obstacles still remain.

Keywords Healthcare institution • Funding and ownership • Healthcare quality • Healthcare expenditure • Evolution

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In this chapter, we separate the hospital by ownership (public/private) for discussion. Because of the historical healthcare system context, the public sector is more mature than the private one. As a consequence, some pilot reforms are introduced only in the public sector. As example is the implementation of a Diagnostics Related Group- (DRG)-based payment presented at the end of the first section of this Chapter. Actually, this does not mean that the private sector will be immune to these new forms of funding. In the United States, for instance, when the DRG-based payment was introduced, it was designed for Medicare patient (patients aged over 65) without focusing on a specific hospital ownership by also targeting private hospitals.

Public Health Establishments

Institutional Context

Ownership

After the implementation of the "three-tier public provision system", most hospitals were under the direct supervision of the Health Ministry, with support from local Health Offices. Nevertheless, some remained dependent on state-owned companies or the army. Other governing bodies were involved in maternity and family planning centres, at county and township level. Whatever the governing body, the healthcare supply was provided by the public sector.

Today, health centres in both rural and urban areas are split between public and private structures. In rural zones, community clinics are mostly private whereas urban county hospitals remain mostly public.

Comparing Figs. 4.1 and 4.2 illustrates that the healthcare supply shift from the public sector to the private sector is an ongoing process.

Governing Bodies

Public hospitals are mainly but not solely under the supervision of the Health Ministry. There is still a certain number of governing bodies, ministries or state-owned companies that are directly involved in the management of hospitals. For instance, the People's Liberation Army (PLA) and some large state-owned industries, such as the railways, have their own hospitals and medical schools. Most hospitals and medical schools affiliated with the PLA are considered to be of a high quality and provide services to political leaders.[1]

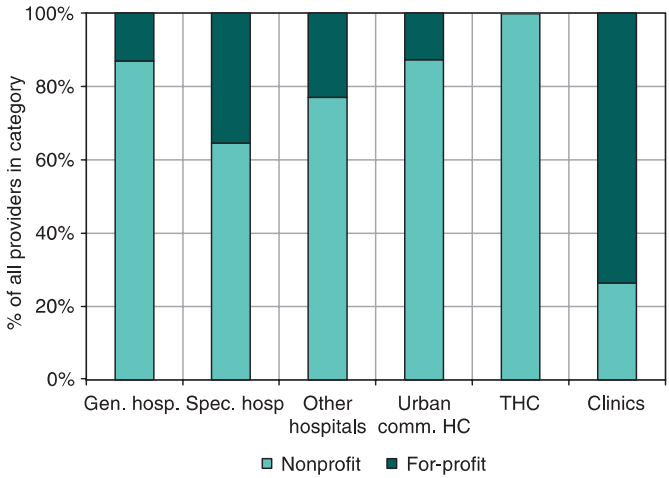

Fig. 4.1 Ownership and healthcare services in 2006. Note: Data are from the 2006 MOH Health Statistical Digest (online) (Ministry of Health, 2006) and refer to 2005. Estimates exclude a small number of providers (<1%) that have not yet been classified. The "non-profit" category mainly consists of organizations owned by the government and companies (available data do not permit a disaggregation of the non-profit category by ownership)

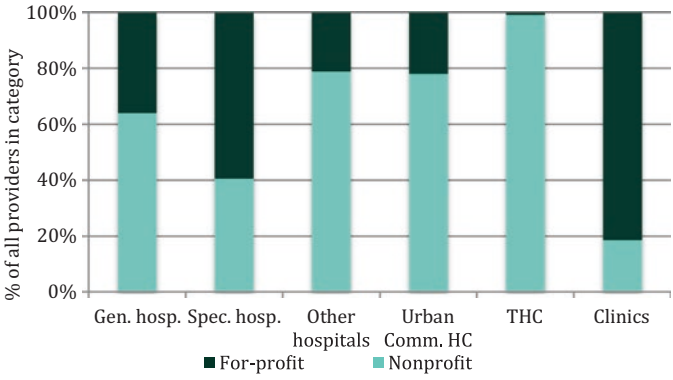

Fig. 4.2 Ownership and healthcare services in 2012. Note: Data are from the 2012 MOH Health Statistical Digest (online) (Ministry of Health, 2012) and refer to 2011. Estimates exclude a small number of providers (<1%) that have not yet been classified. The "non-profit" category mainly consists of organizations owned by government and companies (available data do not permit a disaggregation of the non-profit category by ownership)

This fragmented structure is a hurdle to the implementation of any hospital reform, with four main ministries involved: the National Development and Reform Commission (NDRC), the Ministry of Human Resources and Social Security (MoHRSS), the Ministry of Finance (MoF) and obviously the Ministry of Health (MoH). These ministries do not have the same objectives. As a consequence, healthcare suppliers do not respond to the same incentives, which leads to a lack of co-ordination between healthcare providers. The effect of the reforms implemented may be affected by this multiplicity of governing bodies.

The SARS epidemics in 2003 has crystallized the importance of public health and care. Many experts and officials have pointed out the flaws in the health system that led to the quick spread of the SARS virus.[2] As a consequence, a think tank was created to give strategic direction to future reforms: the Development Research Centre (DRC) reports to the Chinese State Council. One of its reports heavily influenced the 2009 reform package.[3]

To solve the complexity of implementing Chinese health system reforms, a cross-ministry group was set up in 2006 to facilitate the implementation of hospital reform. This Leading Group for Coordination Healthcare System Reform is dependent on the NDRC and Health Ministry and its first chairman was the future Prime Minister Li Keqiang.

In 2008, this group in the state council was restructured with the mission to co-ordinate all stakeholders of healthcare reform, from provincial governments to ministries involved and administrations in charge of implementing reforms.[4] It made various and important policy initiatives at the central level. This *leading group* consists of representatives from 20 ministries including the MoH, MoHRSS, MoF and NDRC. As a support, one agency from each of the four main ministries is in charge of a specific part of the reform. Resources from other governing bodies are also tapped for more specialized aspects (see Table 4.1). Besides which, every province set up a local team for health reform. They are in charge of a specific checklist of tasks from the state council that can be completed by the provincial authority.

As a consequence, all reforms implemented since 2009 are not co-ordinated by the Ministry of Health but by a special unit reporting directing to the State Council (or more precisely to the Health Reform Office of the State Council). Yet, this unit does not have the ability to actually implement the decisions taken. It needs to go the ministries to execute decisions. In reality, these reforms involve a large numbers of governing

Table 4.1 Agencies in charge of healthcare reform

Governing body	*Role*
Ministry of Health (MoH)	Healthcare service per se, public hospital reform, rural co-operative schemes, list of authorized medicines and medical devices, long-term planning
National Development and Reform Commission (NDRC)	Payment rules and regulation, national list of reimbursed medicines, training
Ministry of Human Resources and Social Security (MoHRSS)	State-financed health insurance
Ministry of Finance (MoF)	Investment in healthcare
State Food and Drug Administration of China (SFDA)	Safety of care products and care-related products
State Intellectual Property Office (SIPO)	Patent regulation and application in the domain of healthcare
China Insurance Regulatory Council (CIRC)	Organization and regulation of private insurance market

Source: US-China Business Council

bodies. The National Development and Reform Commission (NDRC) and the Ministry of Finance (MoF) in particular have a key role.

The different ministries involved can sometimes have conflicting priorities. For instance, if we take the example of health insurance, MoHRSS is in charge of insurance in urban areas, whereas the Ministry of Civil Affairs (MoCA) manages a programme for the underprivileged that includes insurance covering basic care. In parallel, the China Insurance Regulatory Commission (CIRC) has a mission to encourage the development of a private health insurance market.

Another example is any reform touching hospital human resources. The Office of Central Institutional Organization, the Ministry of Education as well as MoHRSS, because it manages the career of civil servants, are necessarily involved.

Daily governance is also complex. For instance, for investment decisions for public hospitals, two ministries share responsibility: the MOH and the National Development and Reform Commission (NDRC). As a result, public hospitals may receive conflicting policies and regulations.

In addition, for the execution of policies, many other bodies are involved: authorities at provincial level, district level and city level, bureaus of Labour and Social Security, Health and Finance. This huge number of stakeholders shows the complexity of hospital reform in China. If the

central government defines the general direction and objectives, this actual implementation takes place under steering at a more granular level—provincial and below. This, combined with a large financial autonomy, makes it possible to factor in local specificities in the actual execution of reforms but can also generate important territorial inequalities. A costly reform implemented in an area hit by economic downturn will not produce the same effect as when implemented in a soaring region.

To mitigate this risk, each authority in charge of implementation at the local level is given measurable targets, for instance, the number of people covered by public health insurance at a certain date. These targets are cascaded into the individual objectives of local political leaders, having a direct impact on their career advancement and promotion into the party's apparatus. Nonetheless, many health reform objectives are not easily quantifiable, for instance better governance, leaving widespread nuances in interpretation.

Evolution of Funding

At the beginning of the 1980s, the central government was paying for 60% of hospital expenditure. Over the 1979–1991 period, the government introduced a co-payment system in healthcare establishments. The aim was to provide greater flexibility in terms of profit, and thus to incite establishments to improve the quality of the services they offered and professionalize their medical staff (Du, 2009).[5] In 1992, the Ministry of Health officially granted greater autonomy to public hospitals, through an official document published in September 1992 by the State Council, "Instructions on Health Reform".[6] By this, public hospitals were authorized to deliver paid services and to make profits, but were made responsible for their losses and debts. They have to self-finance their investment in equipment and infrastructure as well as a salary bonus policy. They are also entitled to enter into joint ventures with private companies, including setting up for-profit departments within the public hospital itself. As a result of this 1992 reform, bigger hospital structures developed, as well as improved quality, thanks to the acquisition of high-tech equipment.

Since then, public hospitals in China have the particularity that they behave as companies, aiming to maximize profit through investment and price setting, while being governed as any traditional public structure. They are the sole recipient of public funding,[7] be it from the central or local governments. Staff management is under the supervision of central

governing bodies, mainly the MoRHSS, from both a resource allocation perspective as well as individual career management. While they keep this strong bond with central authorities, they have financial autonomy. They are able to determine their price policy, which can turn out to be a problem in cases where they are in a monopoly situation in certain geographical areas, and hence without the market regulation of pricing.

By 2003 central government funding had fallen to 8% of hospital expenditure. The fall in state financing was offset by charging for medicines and diagnosis procedures. In China, as in many other Asian countries, patients do not consult doctors in their doctor's office—outside any healthcare facilities—but in the hospital outpatient department. Prescriptions are given at the end of the consultation by default (patients are not asked if they want to purchase them). The total cost is the sum of the price of the consultation and that of the prescribed medicine. Patients do not have an explicit choice in not accepting the doctor's prescription. In this context, prescription prices can be varied in order to compensate for the fall in the hospital's central funding. This practice has been severely questioned during the recent healthcare reforms in China. Prescriptions currently account for about half of healthcare expenditure. The over-prescription of medicine and the over-use of high-tech equipment for diagnostic purposes have often been identified as the cause of the rapid increase in healthcare expenditure (Eggleston et al., 2008a[8]; Wang, 2005)[9]. The current healthcare system has been judged to be both too costly and more sophisticated than is medically necessary (World Bank, 2004[10]; Blumenthal and Hsiao, 2005[11]). It is very likely that these factors affect the demand for and use of healthcare.

Following the 1992-reform, some public facilities set up healthcare centres with a fee-for-service payment. As expected, these for-profit firms reoriented their activity to the most profitable healthcare areas. These for-profit health centres did not have to provide any public-service mission. The healthcare prevention programme was then neglected: epidemic control, health education, maternal and child health all suffered.

The 2003 SARS epidemic put the public health role of public hospitals to the forefront again. The negative side-effects of financial autonomy appeared sharply in that context. This led to a clear split between medical operations and hospital management functions. Additionally, it was demanded that for-profit activities be clearly split from the rest in hospital books of account.[12]

Nonetheless, in 2008, health expenditure for pharmaceutical products still accounted for 43% of total health expenditure.[13] This compares with a 17% average share in Organisation for Economic Co-operation and Development (OECD) countries.[14] Per capita medicine expenditure reach RMB 574. Nearly 40 million surgeries were performed in China in 2015. This figure is nearly one-sixth of the world's total surgical operations. The biggest share of procedures is in the obstetrical and gynecological areas, followed by digestive and gastrointestinal system procedures.[15] According to Yip and Hsiao (2015), "from 1978 to 2011, personal health spending per capita increased by a multiple of 164 from 11 RMB to 1801 RMB (or from roughly 6 to 280 USD) while the Consumer Price Index increased by 5.65 times during this period. A huge portion of this expenditure was for high-tech tests and unnecessary drugs."[16,17]

Improving Healthcare Quality and Reducing Hospital Expenditure Funding

In the 1980s, the main objective of the regulator was to make it possible for hospitals to acquire technology and to improve their level of quality. In parallel, the aim was also to reduce the burden of hospital expenditure funding. The series of reforms implied three main changes:

- Financial autonomy of public hospitals
- Managerial autonomy for a part of public hospital staff
- Financial incentives for physicians to profit.

Financial autonomy of public hospitals: This has been achieved at the expense of accessibility for many. The share of health expenditure in total income has rocketed during the past 35 years. In 1990, per capital health expenditure in urban areas was still contained at a very low level of RMB 26, whereas it reached more than RMB 1,000 in 2013.

Another effect of the financial autonomy of public hospital has been a certain loss of authorities over medical practices.

Managerial autonomy: In parallel, hospitals have autonomy in personnel management for their for-profit activity. For that part of the activity, personnel are not under the same governance and control by authorities. This co-existence is bound to create tensions, as salary differences appear between the official public salary scale and unregulated salaries of the for-profit activities. Additional benefits can be granted to physicians and other

medical personnel, based on a very non-transparent basis, leading to many frustrations. Pursuit of profit can become the top priority while it was totally disregarded in previous situations. The objective function of medical personnel includes an increasing component of profit maximization.

Financial incentives for physicians: In public hospitals, physicians are civil servants (*bianzhi*)[18]. This status implies certain benefits that will be described later and ensures a fixed income, independent from their volume of activity. Yet, this fixed income is often described as being fairly low in view of both their responsibilities and other revenue sources. An additional income source has been authorized dependent on the for-profit activity of the hospital. One can then easily see that physicians have an incentive to develop the for-profit activities, for instance increasing the number of consultations, delivering over-diagnoses or over-prescribing. In such cases, it is a win–win situation for both medical personnel and hospital management.

In addition, this healthcare system nurtures the pre-existing practices of bribes and other types of corruption. They tend to become widespread, creating an increasingly tense atmosphere between patients and hospital personnel.

Funding of Public Hospitals Today

The Chinese healthcare system has long been accused of failing to efficiently deliver healthcare services at an affordable cost. In 2009, a set of reforms were implemented, giving the state a bigger role in the production and distribution of health services.

Nonetheless, public hospitals receive only limited funding from the regulator. Figure 4.3 shows the different sources of funding. It is quite striking that direct public funding from the government only represents a minimal share of the total (8%). In reality, the involvement is more pronounced with indirect funding through public health insurance set up in both rural and urban areas. Companies also participate in the financing of healthcare, accounting for almost one-third of the total.

Patients' share accounts for 50% of hospital revenue, but patients usually do not bear the total costs, as part is covered by public or private health insurance. The covered part has been increasing steadily over the past few years. In the end, patients' out-of-pocket payments rose from 20% in 1980 to 59% in 2000, but then decreased to a current rate of around 35%).[19,20]

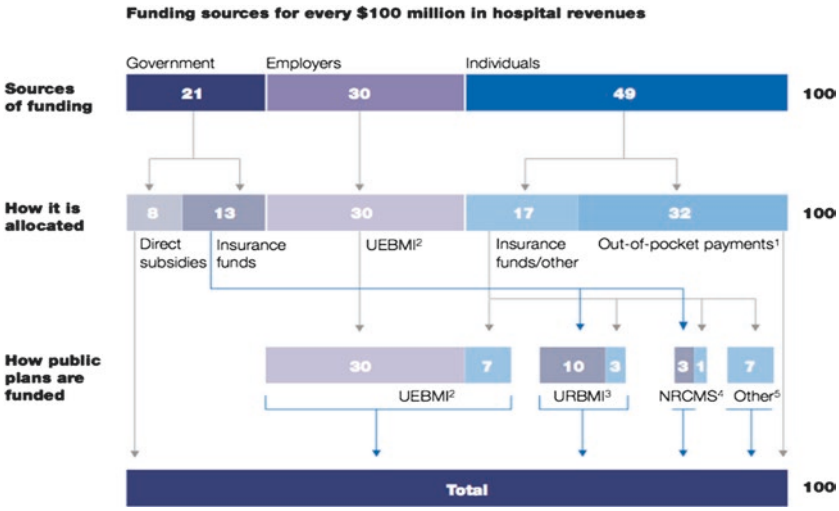

Fig. 4.3 Funding sources of public hospitals in China. Out-of-pocket payment: sum paid by patients and not reimbursed by any kind of insurance. It includes $6 million from the uninsured and $26 million in co-payments from the insured. [2]UEBMI: Urban Employee Basic Medical Insurance. [3]URBMI: Urban Resident Basic Medical Insurance. [4]NRCMS: New Rural Cooperative Medical System. [5]"Other" includes private health insurance (both supplementary and stand-alone); employer contribution to group private health insurance, which is around $1 million. Total funding is around $7 million. Source: Hospital interviews; government statistics 2010, "Healthcare in China," A Kieger Report on the Chinese Healthcare Market 2015. www.mckinsey.com/...service/healthcare%20systems%20and%20services/health%20international/hi10_china_healthcare_reform.ashx

A landscape analysis of the health insurance market in China is presented in Chap. 7.

Early Forms of Prospective Payment in China

Some experiments, presented here, aimed at switching from a fee-for-service payment to any form of prospective payment. The goal is to modify incentives for healthcare providers: from driving up service prices to introducing and encouraging competition with a price ceiling system. In urban areas, the insurance schemes existing before the economic reform were based on a principle of regulated pricing. When the Basic Medical

Insurance (BMI) scheme was introduced, a mechanism to contain expenditure from the demand side was implemented (the Medical Savings Accounts—MSA). On the supply side, there was no change in the provider payment introduced by central government. However, at local government level, examples of the implementation of some form of prospective payment can found from the early BMI pilot.

In 1997, the Social Insurance Bureau of Hainan province implemented a prospective payment, concerning six key hospitals. This payment was quite similar to a global budget system. Studies led by Yip and Eggleston (2001 and 2004)[21,22] show that average expenditure by admission fell below that of other hospitals on a fee-for-service basis. Besides, spending growth on expensive drugs and high-tech services was reduced dramatically.[23] The defined limits of these studies concerns the fact that the data were not available to control for the potential reduction of quality of care, risk selection and cost shifting to the uninsured. Implementation of similar forms of prospective payment systems were nonetheless implemented in many areas throughout China, as in Qingdao, Shandong province, for instance.[24]

Some other cities introduced payment per capita as an alternative prospective payment form. In 2001, Jiujiang city switched to capitation: a fixed amount per capita (contrary to per inpatient or per inpatient day as presented so far) on a defined geographic area. Medical expenditure per insured inpatient fell dramatically and the share of drug expenditure in total spending fell drastically.[25] However, lack of information about the impact on the healthcare level of quality prevents any conclusion being drawn.

First Implementation of the DRG Payment in China

The Diagnosis Related Group (DRG) payment is a reimbursement scheme that was first implemented in the United States at the beginning of the 1980s. This type of payment is a form of prospective payment system and consists of a lump sum based on the pathology and procedures to be carried out on the patient. A categorization of pathologies, diagnoses and actions is made *ex-ante*. All patients are affected in one these categories, collectively called the Diagnosis Related Group (DRG).

Each DRG defines a pathology, associated diagnoses and all procedures already implemented or yet to be implemented. This way, each patient falls into a DRG and each DRG corresponds to a predefined lump sum, based

on the expenses the hospital has to incur to carry out treatment for this type of patient. The advantage of this lump sum is that it is not correlated with the treatment actually performed while covering the theoretical expenses necessary to cure the patient. This gives an incentive to limit cost, explaining why this type of payment is widespread, not only in China but in a vast majority of OECD countries.

The efficiency of such a system relies heavily on the quality of the information system that goes with it. It is quite complex, as, for each patient, information regarding diagnoses, procedures and comorbidities is to be collected and compiled. China aims at putting in place a comprehensive information system with medical history and patient admission details. This project is still in the early stages though.

Zhenjiang, a BMI pilot city, started to experiment with a DRG payment system for 82 diseases.[26] The reimbursement rate for each disease was set according to average expenditure incurred over the previous three years in treating each disease, minus any "unreasonable" expenditure.[27] In 2003, the average spending for diseases using the DRG payment was 25% lower than the province average in hospitals of the same level. Once again, because of the poor quality of data at the micro-level, studies on the impact of the DRG payment system on the quality of care and risk of selection impact have unfortunately not been published yet.

After that, DRG-based payment systems spread across China, for instance, in cities such as Guangzhou, Dalian, Liushou and Mudanjiang. In Guangdong province, as early as 2002, a total of 13 out of 18 municipalities were already using such systems. However, this DRG-based payment is still restricted to specific diseases. Besides, these cities also use different prospective payment systems alongside a fixed charge per inpatient. Studies on this aspect provided less strong evidence for DRG-based payments or other forms of prospective payment on a reduction of healthcare spending.[28,29,30]

Following the BMI offices' example, some local offices of NCMS (public health insurance for inhabitants in rural areas)[31] adopted a prospective payment system to reimburse the health providers. For instance, two counties in Shaanxi province adopted a fixed-price reimbursement system for some selected THCs and selected county hospitals according to specific criteria.[32]

Some providers moved from a FFS service to a prospective payment system but not in conjunction with a public insurance scheme. In

Heilongjiang province, by the end of 2000, 16 hospitals started to use a DRG-based payment system. One goal was to attract private investment and more business by developing a reputation for transparency in pricing.[33,34] So far, there is no scientific study paper on the effect on quality of care or strong evidence on healthcare expenditure.

To date, there are two main viable DRG systems, the Beijing-DRG (2011) and the C-DRG system set up by the NHFPC (2017). Because of inconclusive results, in 2017, these different forms of prospective payment are still being studied and this is an on-going field of research.

Private Health Establishments

Is the Private Hospital Sector Really Booming?

We use here "private" in a wider sense, to cover all hospital structures apart from the public ones (*minying*), be it through joint ventures, cooperatives or private structures with capital from mainly Hong-Kong, Macao, Taiwan but also all over the world.

Until 1980, it was legally impossible to set up a private hospital. Different reforms since then have been directed at developing them, along with the financial autonomy of public hospitals. As of 2005, 15.9% of hospitals were registered as private structures, most of them being specialized establishments. Nonetheless, the average size of private hospitals is much smaller than public hospitals. In 2008, the average number of inpatient beds for a private hospital was 42, which is in sharp contrast to the average number of 228 beds for a public hospital.[35]

Recently, when classifying hospitals by their ownership, 58% of the hospitals in China are public, including state-owned and indirectly state-owned ones; the remaining 42% are private. In terms of level, according to the official hospital classification, the percentage of publicly owned hospitals by admissions is 96% for Level 3 and 91% for Level 2 hospitals. As a result, 90% of Chinese patients choose to visit public hospitals. Private hospitals in China only account for around 10% of the service volume and for 14% of beds while being operated at a lower level (Fig. 4.4).[36] The picture is quite the opposite in the United States, where public hospitals make up 15% of total hospitals and only 27% of patient visits.[37]

Nonetheless, the private hospital sector has been steadily increasing over the past few years. In 2013, the share of beds in private hospitals reached 15.6%, 1.6% up from the previous year. The number of public

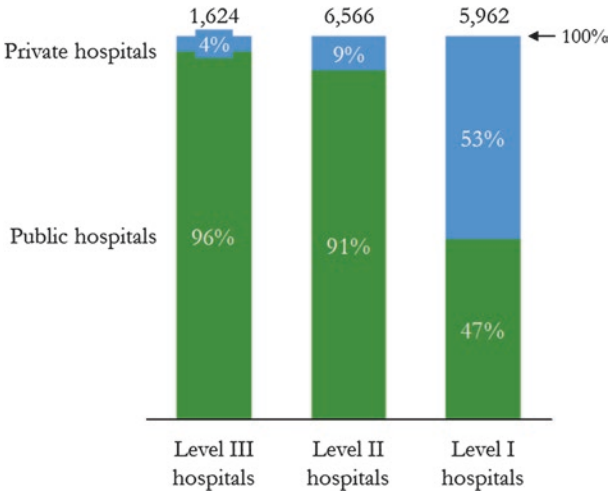

Fig. 4.4 Hospital ownership by hospital level. Source: NHFPC (2014), figures from 2012

hospitals grew from roughly 5400 in 2008 to 10,877 in 2014.[38] From 2012 to 2013, the number of patients treated in a private hospital grew by 1.1%. We can then observe a constant increasing trend but no sharp change (Fig. 4.5).

In rural zones though, the situation is totally different. A large part of primary care is carried out in dispensaries that are now almost exclusively private and paid for on a fee-for-service mode. Yet, it is quite difficult to precisely measure the actual progression of the activity of private healthcare establishments. Until very recently, the information on the public or private status of a hospital was not made available in official statistics.

In conclusion, the number of private healthcare facilities is increasing but, in terms of number of visits, there is no private hospital boom.

How to Explain the Difficulty of Growing the Private Hospital Sector?

The Ministry of Health has stated on various occasion that it wants to develop the private health sector. The objective set by the State Council is for it to command 20% of the market by 2020. Why such support? As previously explained, public hospitals are largely in a monopoly situation

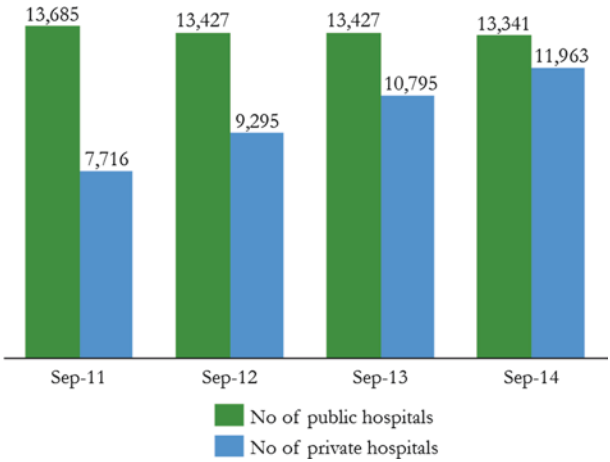

Fig. 4.5 Number of public and private hospitals in China. Source: NHFPC (2014)

in their geographical area. The decrease in public funding has led to a deregulation of healthcare pricing. The partially stated goal here is to increase competition between public and private hospitals to help regulate pricing. This is very similar to the mechanism in place in the United States for a large part of the population. Using competition between public and private sectors to better regulate hospital care is also increasingly popular in a number of European countries (e.g. Germany, the United Kingdom, the Netherlands and France).

In China, the 12th Five Year Plan (2012–2016) and the 13th Five Year Plan (2016–2020) emphasize the development of private hospitals. Until then, setting up a private healthcare structure had been legally possible for two decades, but almost impossible in practice, in particular due to the difficulties of hiring medically qualified personnel.[39] Private hospitals have been addressing, as a priority, three markets segments: high-end healthcare for expats and the affluent local population, healthcare targeted to very specific pathologies and finally healthcare in direct competition with that offered by public hospitals.

The first segment enjoys sold growth. Initially directed at expat consumers, it turns out to be increasingly used by high-end consumers. “Half of our outpatients are expats working or living in China, such as diplomats and executives of foreign-invested companies. And the other half is

high-income Chinese residents. We sell by word of mouth," said Zhu Ying, President of the Beijing Bayley & Jackson Medical Centre in downtown Beijing, a private hospital with headquarters in Hong Kong.[40] This is an example of what can be observed in very big cities in China. However, so far, this phenomenon is too new to draw an conclusion apart from this initial assessment.

In the third segment, that of private hospitals in competition with public structures, the former sometimes have to face distorted competition, through public subventions. However, they also have to overcome the difficulties of attracting the best practitioners and resistance from the public towards a new structure with neither a track record nor endorsement from the community. This difficulty in attracting patients seems hard to understand in the context of dissatisfaction over the service provided by public hospitals, but it actually sheds light on the priority criteria of patients/customers. The quality and reliability offered by public hospital, through their high level of equipment and skilled and trained personnel, prevails over the annoyance of congestion and the price of care.

As mentioned previously, recruitment of highly skilled professionals is one of the main obstacles to the development of private hospitals. The status of physicians in public hospitals, the benefits it brings and the additional wages received in various forms are often roadblocks to a migration to a private structure.[41] A 2010 McKinsey report entitled "China Healthcare Reform" gives the example of Beijing municipality. It addresses Community Healthcare Centres[42] (CHCs) but the configuration is identical for private hospitals: "A few cities have tried to force more patients to go to CHCs, but these efforts have generally been unsuccessful. In January 2010, for example, one local government implemented a policy of requiring patients with certain chronic diseases to be treated at a CHC before they could receive care at a class III hospital. However, the local department of health withdrew this policy one month later, saying that the quality of the CHCs needed to be improved before the policy could be implemented."[43]

The status and financial obstacles to hiring well-known professionals in private hospitals creates a vicious circle. As they do not manage to hire renowned physicians, private hospitals are obliged to hire young doctors with little experience. For both patients and professionals, this type of structure tends to become a second choice, when public hospitals are not an option. The story of An Hua and Li Peng provides a good example. They are reputed physicians in a Level 1 hospital in Beijing. They confided

that working in a private structure could resolve their current, difficult, working conditions. Where they work, they have to deal with an extended number of working hours, an excessive number of patients and a patient–hospital staff antagonistic climate. However, according to them, the size of private facilities is too small to attract a sufficient number of patients; the healthcare equipment is too limited; and the professional environment does not provide a sufficiently stimulating setting in which to work and grow.[44] This difficulty in recruitment is a recurring theme mentioned by professionals as well as academics. Dr. Wang Zhen, from the Chinese Academy of Social Sciences (CASS) gives the example of the creation of a private hospital in Shenzhen in 2012. It was a showcase collaboration between Hong Kong University (HKU) and the Shenzhen municipality. In 2015, this state of the art facility has not managed to fill all the physician positions. Out of 300 full-time positions, 100 are yet to be filled, to a point where it is seriously considering shift the establishment to a public status to solve the recruitment issue.[45]

In parallel, another obstacle to the development of private hospitals is the restrictive conditions on the reimbursement of healthcare expenses by public insurance. This does not include the reimbursement of healthcare in private facilities. However, a main part of the population can only afford to get healthcare access using public insurance. As a consequence, the restrictive rule of public insurance excludes a large part of the population from access to private facilities. Recently, in some cases and in some areas, expenses in private facilities have been partially reimbursed by public health insurance.[46] It would be interesting to assess the effect of such a change on the individual's preference in the choice of healthcare providers.

So far, if some reforms have tended to develop the private health sector, there are still some keys determinants that limit this central state support.

A True Story of the Challenges Behind Opening a Clinic

Yu Ying, a former physician in a famous Beijing hospital, the Peking Union Medical College Hospital, is a key figure and spokesperson for public hospital doctors. Her Weibo blog (Chinese equivalent of Twitter) has more than 3 million followers. On it, she has been describing her hesitation about leaving the public sector, her difficulties after crossing the bridge, but also the fulfillment it created for her.[47] Yu Ying, who had chosen "Emergency Room superwoman" for her pseudoname, is one of the few

professionals to have left a Level 3 hospital to create a private medical centre. When she decided to leave her public hospital, her objective was to open her clinic in Beijing city, within the Fifth Ring Road. However, as she explained, this was not as easy as expected. A series of administrative constraints and barriers prevented her from opening a centre there. All her efforts failed. Having resigned from her previous hospital and given up her civil servant status, returning to the public sector was no longer an option. She decided to take her chance in Chengdu, Sichuan province, where she tried again to open a private clinic providing the most basic medical services. She failed again. During this time, she used her Weibo blog to explain part of her difficulties and the obstacles encountered along the way. When I interviewed her, the term "bribery" was never mentioned. As she said, she was able to explain her disappointment without going too far into detail about the local administrative process. In March 2014, she used her Weibo account to explicitly address the authorities about her situation asking, "Which deputy of the National People's Congress can tell me why it is so difficult for a doctor, who has worked in the country's top-grade hospital for 12 years and has held a doctorate degree after eight years of professional medical education, to open a regular clinic through formal channels?"[48] The timing was perfect. It was between the plenary session of the National People's Congress and the Chinese People's Political Consultative Conference, allowing a strong echo to her protest. The outcome was finally positive, even though she had to drop the idea of setting up her own facility. She is now the CEO of a private general clinic in Beijing city run by the Amcare group,[49] a public–private partnership joint venture, two and a half years after having resigned from a top public hospital. Despite her 3 million fans, she has to struggle to both promote the quality of a market-oriented institution and recruit staff members from big public hospitals.

Her experience illustrates the difficulty faced by medical professionals in opening their own private health centres compared to the situation in most OECD countries.

Regulatory and Para-regulatory Context for Private Health Structures

New Series of Policies

Since 2009, a new series of policies have been released. The goal of these policies is to lower the barrier to entry for private health establishments.

This should create a more adequate business environment and improve the share of private health structures in the healthcare market. In 2010, a notification on "further encouraging and leading social capital to participate in healthcare institutions" was published.[50] This document promotes and encourages social capital to run private hospitals. It covers more practical, detailed information on beneficial policies for running a private health structure. In order to facilitate the development of the private hospital sector, it also allows a lowering of the entry barriers for private medical institutes with foreign capital. As a pilot experiment, some local governments have lifter some constraints on public hospitals: for instance, experimenting with the privatization of public hospitals.

The Model—Chains of Private Specialized Hospitals

Currently, the private healthcare market has developed a model based on chains of private specialized hospitals. More specifically, the medical services provided by the private sector are mostly for dental treatment, ophthalmology and plastic surgery, as well as diagnosis labs and centres. These sectors are medical sectors where customized services may generate higher margins. Maternity is also considered as a potentially profitable sector. For instance, by May 2013, AmCare had assisted in more than 10,000 births and its total revenue soared 50% to 300 million yuan ($49 million). In 2014, US-based Warburg Pincus LLC invested $100 million in Beijing-based AmCare Women's and Children's Hospital to support its expansion. Today AmCare accounts for about half of the high-end healthcare market for women and children in Beijing, which is now dominated by private hospitals.[51]

According to the Roland Berger report illustrated in Fig 4.6, "investors with various backgrounds are entering China's private hospital market. Foreign hospital chain investors, such as Chindex have built up high-end chain hospitals in smaller size in China. Local financial investors, real estate companies and pharmaceutical companies are mostly targeting at mid-end market and specialty hospitals. Pharmaceutical companies such as Shanghai Fosun Pharmaceutical Group aim at broadening their value chain and boost selling of their own drugs by establishing hospitals or participating in public hospital privatization".[52]

A cluster of private medical companies and hospitals owned by people from the city of Putian, commonly known as the "Putian clan" (*Putian ji*), also constitutes great power in the healthcare industry as over 80% of private medical companies in China are affiliated with the Putian clan.[53]

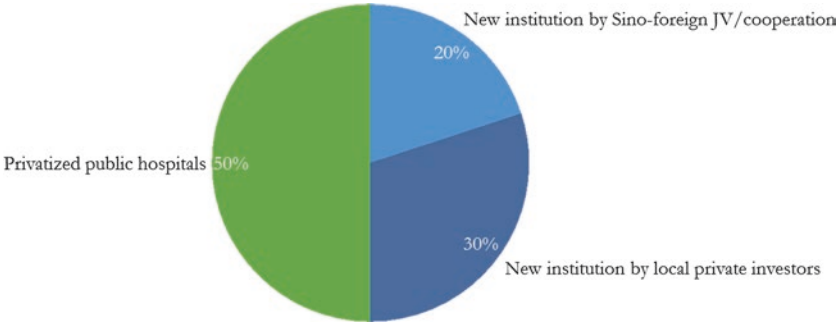

Fig. 4.6 Investors with various backgrounds in 2012. Source: Roland Berger (2014)

The members of the Putian clan have organized themselves into a chamber of commerce named "Putian (Chinese) Health Industry Association" (*Putian (Zhongguo) Jiankang chanye zong shanghui*) since 2014.

Public Funding and Private Healthcare Providers

Another part of the reform aimed at developing private hospitals is their inclusion into public health insurance schemes. Until recently, a patient admitted into a private hospital was not eligible for reimbursement from public insurance. This constraint is progressively eased, in one province after the other. Rules tend to vary depending on the area, but there is an increasing number of cases for which care provided in private healthcare centres can be covered by public insurance schemes.

In addition, in some provinces or municipalities, private hospitals can be directly subsidized. Again, it is important to note the decentralized structure of the Chinese healthcare system. General direction and target is given by the central government but provinces have wide autonomy in actual implementation. In August 2015, the National Health and Family Planning Commission jointly announced with the Ministry of Commerce that fully foreign-owned private hospitals were allowed in seven provinces (Beijing, Tianjin, Shanghai, Jiangsu, Guangdong, Hainan and Fujian).[54,55]

Challenges for Private Health Establishments

In future, key factors private health structures need to develop are: (1) patient recognition that private health establishments can be as trustworthy

as a public ones; (2) obtaining sufficiently skilled and reputable doctors and medical staff including nurses; and (3) full inclusion in healthcare insurance schemes.

This point (1) is a prerequisite condition. The development of the private sector is based on a high level of healthcare quality. The over-arching goal of profit maximization must not contaminate the level of quality provided. In 2016, press articles drew attention to private healthcare companies that severely undermined doctors' medical professionalism. As witnesses, doctors previously employed by Putian clan hospitals, stated that to achieve profit targets set by their superiors they performed unnecessary medical treatments. They added that these practices are not uncommon in these hospitals as doctors are directly employed by the hospitals they serve.[56] A necessary challenge will be to make a profit without undermining the level of quality provided.

Even at a slower pace than anticipated, things are starting to change and the private sector is now showing significant growth. According to the NHFPC, from September 2013 to September 2014, the number of private hospitals has increased by 1168, while the cohort of public hospitals was reduced by 86. From 2008 through 2014, patient visits to private hospitals have increased by 12.5% from third trimester 2013 to third trimester 2014, overstepping the growth of visits to public hospitals, which have grown at 7.9% on a quarter-to-quarter basis.[57]

In fact, since the economic reforms of the 1980s, there have been two schools of thought regarding the direction the health system in China should take.[58] One is a pro-market group that advocates market liberalism to improve the quality of healthcare and efficiency. The other is a pro-government group that advocates the need for a large government role in the production and distribution of health services. The latter prioritize issues of equity or fairness and aim at reducing social inequities. Depending on the period, each school of thought has had the upper hand in the direction given to reform. The last round of reform since 2013 is very much market-oriented, the market being expected to play a decisive role in the allocation of resources. The Third Plenum of the 18th Central Committee of the Communist Party, in November 2013, emphasized a higher priority for economic growth. Therefore, the conditions required for the development of the private sector in the healthcare market are fully in place with favourable policies.

In a near future, with this preferential environment and the ongoing governmental commitment, a rapid growth of the private sector is to be

expected. This evolution should have, at least, two consequences. One could be to put pressure on public hospitals and push them to keep going at improving their level of quality, not only in terms of medical services but also in the overall service quality (including accommodation, catering, etc.) and operational efficiency. The other consequence could be to limit the demand for public hospital access (for in- and outpatients) and reduce congestion in the Level 3 and 3AAA public hospitals.

These forecasts on the effect of a more prominent presence of private healthcare providers in the healthcare market are based on a major assumption: that the income or wealth of a society is equitably distributed. The hypothesis is very strong and very restrictive. With increasing income inequality, the part of the population who cannot afford to access to healthcare will increase. An adequate and efficient alternative may be universal healthcare access for all. While this may be too costly for society it may avoid the failure of the market in providing equal access to healthcare. The Healthy China 2020 project includes universal healthcare access by the year 2020 for basic healthcare supplies. Besides the success of this programme, the central question will be "What is included in the 'basic healthcare supplies' basket?"

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