An interim interdisciplinary evaluation of China’s national health care reform: emerging evidence and new perspectives

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INTRODUCTION

An interim interdisciplinary evaluation of China’s national health care reform: emerging evidence and new perspectives

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Five years have elapsed since the Chinese government unveiled its ambitious health care reform in 2009. A critical juncture in the reform process has been reached and it is time to assess its performance to date in order to inform the next phase of the reform. This article serves as both a review of important studies in the English language literature and the editorial of a special issue titled ‘An interim interdisciplinary evaluation of China’s national health care reform’. Comprising of six individual research articles, this issue represents a rigorous interim appraisal of the reform from an interdisciplinary perspective. The key message of this issue is threefold. First, social insurance is not the silver bullet for China’s health care reform; a revamp is needed to provide better financial protection and to facilitate the move to strategic purchasing. Second, orchestrated reform of the delivery system is needed to address the root causes of rapid cost escalation and vast inefficiency: provider payment reform is the key. Third, in managing the reform process, strategic attention must be given to the dynamic interaction of institutions and incentives. Good governance matters.

Keywords: evaluation; interdisciplinary; health policy; health care reform; China

1. Introduction

Five years have elapsed since the Chinese government announced its ambitious health care reform programme in 2009. The fact that both the United States and China unfolded their gigantic national health care reforms almost simultaneously is reflective of the daunting health policy challenges that most national governments are grappling with. Skyrocketing costs and continuous demand for quality improvement best describe the thorny problems testing the wisdom of policy-makers. While Obamacare has barely survived the obstruction from Congress and remains controversial, its Chinese counterpart has concluded its first phase at a fairly smooth pace. Having had three trillion RMB invested into it within five years,\textsuperscript{1} this landmark reform stands out as one of the biggest health policy interventions in modern history in terms of both scale and scope. Is this reform a success? One can hardly reach a definitive conclusion given the multidimensionality of the reform programme and the much longer time span needed to assess its effects. But what is certain is that the ongoing reform has been transforming a system that affects the health of 1.3 billion people in a dramatic manner. An interim evaluation will be helpful at this critical stage when the Chinese government is searching for solid evidence to improve the current reform agenda.

This special issue presents a rigorous interim evaluation of the reform by a group of scholars from various research fields based in Asia and the United States. As guest

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editors, the authors of this introductory article purposefully defined the interdisciplinary nature of the issue at the beginning for two reasons. First, while health policy studies are inherently multidisciplinary undertakings, the approach of health economics has traditionally played a dominant role. Recent years have seen an increased recognition of the value of interdisciplinary voices. Contributions from the fields of political science, sociology, public administration and political economy have greatly enriched people’s understanding of the intrinsic complexities of health policy (Hsiao 2007, Ho 2010, Duckett 2011, He 2012, Huang 2013, Cheng 2014, Dong et al. 2014). In this issue, we seek to create an intellectual platform conducive for the investigation of a huge and complex policy reform from complementary perspectives.

Second, health policy makers looking for practical advice often get caught between theoretically prescribed solutions and peculiar local constraints. The twists and turns of reforms in many countries repeatedly echo what Marc Roberts and his colleagues said:

> Because money flows and incentives are so important in understanding any health system, we make extensive use of economic analysis. But we also believe that incentives alone do not explain everything... We argue that attention to technical issues alone will never allow a reformer to fully understand and be effective in real situation. (Roberts et al. 2002, p. vi)

We thus provide the policy-makers/reformers of China and other transitional economies with a set of analytically rigorous evidence as well as with prescriptions on several integral dimensions of the reform. This special issue aims to facilitate vigorous policy learning and policy transfer through evidence-based results.

This introductory article proceeds as follows. Section 2 briefly reviews the recent history of China’s health care reform and outlines its key goals, priorities and strategies. In Section 3, we critically survey the English language literature since 2009, aiming to review the important research findings that have emerged since the commencement of the reform. Section 4 outlines the purposes, central arguments and policy implications of the six individual articles in this issue, highlighting the new perspectives they offer. Section 5 concludes the article.

2. China’s health care reform: a brief overview

The Chinese health system’s fall from being an internationally revered model to one ranked at the bottom by the World Health Organization was fast and dramatic. The course of its deterioration was not unique but rather followed the general path observed in most transitional economies. Government funding for health first dwindled because of the poorly performing state economy and the crowd-out effect from other areas that were competing for limited fiscal resources (Hsiao 1995). The health care financing system was drastically weakened following structural changes in the economy. Within a rather short period of time, the large majority of residents who had been insured under the command economy became unprotected. Neither the utilization nor the accessibility of care was improved, and for the vulnerable population, financial barriers were elevated (Hu et al. 1999, Gao et al. 2001). Quality of service and access to care were further undermined because the delivery system built up in the command economy remained largely inefficient. Hospitals and health workers soon found themselves trapped between social obligations and new economic incentives. The typical government delivery model was transformed into a market-oriented system characterized by high out-of-pocket payments and profit-driven providers (Gu 2001, Ma et al. 2008).
Such narratives largely reflect what the East European and Asian transitional economies experienced in the last two decades of the twentieth century, but the Chinese story is more complex. First, unable to adequately finance health care, the government allowed hospitals to heavily rely on user charges for financial survival. The share of government subsidies in the total revenue for public hospitals dropped significantly from 50% to 60% to less than 10%. Generating more than 90% of their income from user fees, public hospitals became fully motivated to draw deeper from patients’ pockets (Liu and Hsiao 1995, Yip and Hsiao 2008). This perverse incentive was exacerbated by various forms of bonus schemes that tied physicians’ incomes with their performance in terms of revenue generation (Likun et al. 2000, Liu and Mills 2003). Medical ethics largely evaporated.

Second, the inappropriate incentives were further reinforced by a defective fee schedule that set the prices for basic medical services and pharmaceuticals low while leaving expensive procedures, tests and drugs with a higher profit margin. Intended to improve access to basic care, this scheme encouraged providers to switch to profitable items but skimp on basic cost-effective services (Liu et al. 2000). The well-known consequence of this system has been the pervasive over-prescription of drugs and high-tech diagnostics tests, leading to massive inefficiencies and a heavy financial burden on patients (Reynolds and McKee 2009, 2011, Currie et al. 2011). Hospitals generate half of their revenue from selling drugs. Compounding the over-provision of care is the reliance on fee-for-service as the method for paying providers (Hu et al. 2008).

Third, a variety of inappropriate incentives has led to the irrational expansion of tertiary curative services but a neglect of primary and preventive care that underpinned the marvellous health achievements in Mao’s era. Dazzling infrastructural development and long queues in big hospitals as well as fierce medical arm races stand in stark contrast to the underfunded and underutilized primary facilities. A referral system and gatekeeping exist in name only. A fragmented and uncoordinated health delivery system has further contributed to cost-ineffective care (Yip and Hsiao 2008, 2014).

The aspects outlined above are merely part of the misaligned incentives embedded in the Chinese health system since the 1980s. The consequences, kanbing nan (expensive access to care) and kanbing gui (medical impoverishment), have sparked vast public discontent with the health system. Behind this situation is the double-digit escalation of China’s health care expenditure, which climbed to 5.36% of the country’s GDP in 2012 (see Figure 1).

The landmark health care reform plan announced in early 2009 was the product of five years of deliberation, with extensive participation from academics and stakeholders. Remarkably, a handful of prestigious internal as well as external think tanks – including the World Bank, WHO, Peking University and Fudan University – were invited to provide independent reform proposals. The heated debate between ‘the government approach’ and ‘the market approach’ was eventually settled on a mixed version that guarantees a level of basic universal health care while permitting market space to meet additional demands (Ho 2010). Kornreich et al. (2012) contend that this participatory consultation process embodied a major transition of policy-making in China and contributed to better governance by generating popular expectations for inclusion and responsiveness.

At the heart of the reform lies the reassertion of the state’s role in health care. The stated overarching goal is to assure that every citizen has equal access to affordable and equitable care by 2020. The reform plan specifically identified five key areas: expanding the coverage of social insurance schemes, establishing a national essential medicines system, advancing public hospital reforms, improving the primary care system and increasing the equality and availability of public health services. An additional 850 billion
RMB (approximately US$125 billion) was to be spent in the first phase of the reform from 2009 to 2011. A high-ranking central steering committee headed by the then vice-premier Li Keqiang was established to coordinate the reform. The entire subnational administrative hierarchy has also been mobilized to develop local adaptations of the national reform formula, and local governments have been encouraged to embark on policy experimentations.

3. Review of recent literature

This section surveys the abundant literature published in recent years examining China’s health care reform in order to synthesize the emerging evidence for an interim evaluation. We included both empirical quantitative studies and qualitative analyses published after 2009 in English, but so as not to miss significant insights, we did not exclude important contributions dating back to a couple of years before the reform commenced. We targeted major international journals and other forms of publications in the fields of health economics, health policy, political science, public administration and China studies. Admittedly, the most up-to-date analyses may not be available yet given the longer production cycle of international journals, while those published after 2009 may not necessarily have used data reflecting the situation since the reform. The review is anchored to four strategic aspects of the reform: (1) health insurance and its impacts on utilization and health care costs, (2) the containment of health care expenditure and the reform of how providers are paid, (3) the development of primary health care, and (4) the pilot of public hospital reform.

3.1. Health insurance, utilization and costs

Using the data from the 2003, 2008 and 2011, National Health Service Surveys, Meng et al. (2012) found a rapid increase in the coverage of social insurance schemes, namely Urban Employees Basic Medical Insurance (UEBMI), Urban Residents Basic Medical Insurance (URBMI) and the New Cooperative Medical Scheme (NCMS). As of 2011,
95.7% of the population, or about 1.28 billion people, were insured, representing a remarkable progress in contrast to the situation in 2003 when only 10% of the Chinese population was covered by any type of risk pooling programme. This improvement can largely be attributed to the strong political will of the central leadership, substantive government subsidies and the high mobilization capacity of the administrative machinery.

As predicted, the most significant impact observed has been the increased utilization of health services, reflecting eased access to care. In parallel with the marked increase in outpatient visits, hospital admissions more than doubled between 2003 and 2011; the effect was most significant in rural areas (Meng *et al.* 2012). Increased utilization has also been reported in many other findings based on empirical data from various regions; the effect was most remarkable in prenatal services and delivery care (Lei *et al.* 2009, Wagstaff *et al.* 2009, Long *et al.* 2010, Li and Zhang 2013, Wang *et al.* 2014a).

Having brought nearly one billion people back under financial protection, the NCMS has been the most extensively researched aspect of China’s health care reform in the past decade. While, in general, the NCMS has been found to be associated with increased service utilization, a noticeable disparity exists across regions and medical sectors. For instance, the study by Yu *et al.* (2010a) in Shandong and Ningxia found that although inpatient service utilization had increased, the effect was significant only for high-income groups, suggesting that middle- and low-income enrollees may not have benefited. Moreover, compared with inpatient services, outpatient service utilization had not seen proportionate increase. Another case study in Gansu Province also found that people with NCMS coverage were less likely to have outpatient visits (Li and Zhang 2013). This disparity could mainly be explained by the fact that the NCMS, as a highly decentralized system, gives local governments vast autonomy in system design. Thus, varying degrees of local government subsidies for premiums, levels of coinsurance and deductibles and even reimbursement procedures may lead to this outcome. Yet it is noteworthy that most of the case studies published thus far were based in less developed regions, while studies analysing the implementation of the NCMS in richer localities are scant.

With the expansion of insurance coverage, the average percentage of inpatient costs reimbursed by insurance schemes rose sharply from 14.4% in 2003 to 46.9% in 2011 (Meng *et al.* 2012). This hoped-for result is also in line with the declining percentage of out-of-pocket expenditure in total health spending (see Figure 2). However, Zhang and Liu (2014) analysed secondary data and demonstrated that the affordability of personal health care has hardly improved since the reform as the share of out-of-pocket payments in disposable personal income has continued to rise. In other words, the reform has not yet made significant progress in its professed goal of providing affordable care. This conclusion is supported by most recent empirical analyses that have demonstrated the very limited effects of social insurance, particularly the NCMS, in reducing people’s out-of-pocket burden, predominantly because of ever-increasing health care costs.

Case studies in Linyi, Shandong Province (Sun *et al.* 2009, 2010) and Liaoning Province (Wang *et al.* 2014b) and a comparative analysis of Shandong and Ningxia (Yu *et al.* 2010a) – all revealed that heavy out-of-pocket payments remain a severe financial burden for rural households. Studies using nationally representative survey data also found no evidence of decreased out-of-pocket expenditure, while catastrophic diseases and medical impoverishment remain high risks for poor households (Lei *et al.* 2009, Wagstaff *et al.* 2009, Yip and Hsiao 2009a, Yang *et al.* 2013, Cheng *et al.* 2014).

The reason for this worrisome trend is threefold. First, high deductibles and co-payments, low reimbursement rates and unsupportive claim procedures have created major barriers. These barriers are compounded by the low portability of insurance
benefits, an additional hurdle for the vast floating population (Mou et al. 2009, Peng et al. 2010). Second, the NCMS in most localities is biased against outpatient services and covers few costs other than those incurred in inpatient care. Yang (2014) noted that despite the financial protection offered by the NCMS, expensive outpatient services constitute the primary reason for sustained medical impoverishment and inequality. The third and the most important reason behind the continued expensive access to care is uncured cost inflation.

Insurance-induced demand and the resultant cost explosion are not new. Total costs tend to surge because insurance encourages the insured to seek care when sick. Wagstaff and Lindelow (2008) have already observed that insurance increases the risk of high and catastrophic spending in the UEBMI scheme. When it is compounded with a low benefit level and supplier induced demand, insurance is often found to aggravate the out-of-pocket burden. Wagstaff et al. (2009) and Yang and Wu (2014) illustrated that the NCMS has also resulted in people receiving more expensive health care. An empirical study in Guangdong Province used four common diseases as tracers and found that hospitalization costs were systematically higher among insured patients than among uninsured patients as the insured tended to have considerably longer lengths of stay (Pan et al. 2009). Other supporting evidence includes the excessively higher incidence of Caesarean sections for the insured, albeit this mode of delivery is prevalent in China (Bogg et al. 2010, Long et al. 2010, 2012), and inappropriate hospital admissions partly promoted by flawed social insurance designs (Zhang et al. 2014b).

3.2. Cost containment and payment reforms

One of the most daunting challenges for the ongoing reform is containing the rapid inflation of health care costs, without which the huge financial resources injected into the reform will hardly help achieve the reform goals but rather will further fuel the massive inefficiencies that are already rather pervasive in the health system (Yip and Hsiao 2008). As the continuous escalation of costs is deeply rooted in a wide range of
misaligned incentives embedded in the system, many new initiatives, all aimed at certain aspects of the existing incentive structure, have emerged in local pilots. While the majority of the experiments target the hard economic incentives, particularly those on the supply side, a special type of intervention was adopted in Fujian Province. Here, the local health bureaus tightened the administrative screws and required public hospitals to squeeze excessive profits. By setting ceilings for cost increases, the bureaus sought to slow down the upward spiral of cost escalation. However, as expected, both hospitals and frontline physicians complied ostensibly while engaging in a variety of opportunistic behaviours to defend their economic interests (He and Qian 2013). The case of Fujian suggests that administrative campaigns alone are unable to curb unnecessary care.

There is a wide agreement that fee-for-service, the dominant method of paying providers in China, is cost inflationary and responsible for the galloping medical costs (Hu et al. 2008). A number of successful experiments involving a switch from a fee-for-service budget to capitation, case-mix or global budget have been found to be associated with reduced average costs and/or length of stay (Yip and Eggleston 2001, 2004, Zhang 2010, Gao et al. 2014). The World Bank (2010a) has provided a comprehensive review of fresh evidence from local reforms published in Chinese. Most experiments have yielded marked effects in cost containment, as predicted by theories. Yet a major weakness of the existing literature is that few studies have thoroughly examined whether payment reforms have compromised quality of care.

Several salient behavioural responses of providers have been found following the switch to alternative payment systems. For instance, Zhang’s study in Shanghai, using difference-in-difference strategies, discovered that hospitals engaged in several opportunistic behaviours in reaction to a diagnostic-related groups (DRG) pilot in order to safeguard profits. Specifically, hospitals were found to be reducing the length of stay of patients with the target disease but not reducing outlays. More importantly, hospitals were found to be engaging in cost-shifting tactics in which they raised outlays on uninsured patients to compensate for reduced revenues from insured patients (Zhang 2010).

Another empirical investigation on a capitation reform in Changde, Hunan Province found a marked reduction in inpatient out-of-pocket costs and length of stay but no discernible effect in terms of total inpatient costs and the drug–cost ratio. Further examination revealed cross-sector cost shifting: hospitals responding to the capitation reform by increasing the volume of outpatient care, which was still paid for by the fee-for-service method (Gao et al. 2014).

Cost shifting appears to be the chief strategy to which providers resort in reaction to payment reforms. In a case study in Beijing, Jian et al. (2009) observed that following a per diem reimbursement reform, while the average length of stay decreased, daily outlays actually increased. They illuminated the puzzle by disentangling the complex incentives within Chinese public hospitals. Although hospital managers are driven by the administrative pressure imposed by government and by economic incentives from the market, they also have to respond to internal appeals from staff. Jian and Guo elucidated that this constitutes a form of internal contract between hospital and staff, with the latter’s pursuit mainly resting on safeguarding bonus income. This explanation echoes He and Qian’s (2013) analysis in Fujian, which argued that any policy intervention that might affect frontline physicians’ tangible economic interests will be resisted by their opportunistic behaviours. Hence, the effects of payment reforms will be undermined unless they proceed in tandem with the realignment of internal incentives.

The concept of pay-for-performance (P4P) has gained prominence in recent years and has been incorporated into a few newly launched payment reforms in China. Wang et al.
(2011b) reported an experiment in Guizhou Province that introduced a salary-plus-bonus payment method for village doctors in lieu of fee for service and removed the incentives for over-prescribing medications. The analysis showed that both outpatient costs and drug spending had dropped, but doctors increased non-drug services such as injections and gained more incentives to refer patients to hospital care, which in turn increased total health care costs. A more encouraging result has come from a natural experiment in Ningxia Province, where an intervention targeted at primary care providers combined capitation with pay-for-performance incentives. Both antibiotic prescriptions and total outpatient spending were found to have declined without major adverse effects on other aspects of care (Yip et al. 2014). All of the evidence accumulated so far, albeit new and slim, has clearly demonstrated the potential of pay-for-performance strategies.

3.3. Primary health care

A key objective of the current reform is to revive China’s once envied primary health system that unfortunately deteriorated during the country’s market transition. Until the recent reform, underfunding, low utilization, poor staff qualifications, inefficiency and low patient satisfaction had plagued the system (Bhattacharyya et al. 2011). The current primary care reform was designed to improve access, quality and efficiency through a comprehensive set of measures, including a large injection of funds, better training and other supportive policies. Ultimately, the strengthening of primary care is expected to help rebuild a well-structured delivery system (Wang et al. 2011a).

There has so far been a paucity of empirical evaluations of primary care reforms. Among the few published studies, results are mixed. Liu et al. (2014) investigated the reform in Anhui Province and presented fairly positive results in terms of cost containment, increased government funding, improved personnel structure, reduced drug spending and increased utilization, but the descriptive nature of this study did not allow it to account for confounding factors. Another case study employed more rigorous methods to analyse the pre- and post-reform data on community health centres (CHCs) in Beijing. The analysis found low utilization, suggesting that primary facilities still fail to attract patients despite heavy investment. The majority of patients still regard CHCs as places for drug dispensing and prescription refills (Zhang et al. 2011). In another case study in Wuhan, Hubei Province, Zhang et al. (2014a) found rather low social recognition of CHCs, with the majority of people still preferring secondary or tertiary facilities when seeking care. Similar findings were also reported in Dalian, Liaoning Province (Dib et al. 2010). These findings suggest the limited impact of the reform in altering demand-side incentives. Despite their stated role as the first point of care, the utilization of community health services remains low (Bhattacharyya et al. 2011).

The supply-side reform mainly seeks to change the behavioural patterns of primary facilities – with government investment – towards the more efficient and equitable provision of care. Salary reform has been introduced in most localities, with health professionals in grassroots facilities becoming fully salaried staff. The intention of this salary reform is to dissolve profit pressures and enable staff to focus on providing quality public health services and appropriate medical treatments (Yu et al. 2011). However, it has generated rather polarized feedback across regions because although it has substantively increased the income level of health workers in poor areas, health workers in many rich areas have actually seen their real income drop. This has not only eroded staff morale but also created a further obstacle in staff recruitment (Zhou et al. 2014).
Commonly known as the ‘separation of revenue and cost’, another widely adopted key initiative strives to remove primary facilities’ incentives for providing unnecessary care by delinking income and expenditure, with the shortfall compensated by government subsidies (Li and Yu 2011). As expected, the system has pulled down drug expenditure and the drug–cost ratio in most primary facilities but not necessarily overall costs due to cost shifting (You et al. 2011). Moreover, this policy has had a negative impact on the morale of primary health workers due to the reduction of their incomes. The central government is now in the midst of addressing the issues that have surfaced. However, it may take longer to see a rigorous analysis in the English language literature.

In parallel with the primary care reform, the newly established National Essential Medicines System (NEMS) also principally targets primary facilities. The disorder in the Chinese pharmaceutical market is well known. Particularly notorious is the price mark-up policy that allowed a 15–25% profit margin for drugs dispensed in health care facilities (Yu et al. 2010b). Coupled with other perverse incentives, this policy greatly motivated the irrational use of prescriptions, especially those involving the abuse of antibiotics. The NEMS aims to increase the availability of cost-effective medicine, ensure the quality of medicine and promote the rational use of medications. This centralized system regulates a wide spectrum of activities, including the selection, production, supply, use, pricing and payment of essential medicines. The system includes a new National Essential Medicines List, with zero price mark-ups, for primary care institutions. The central purpose is to promote the rational use of medicine and remove providers’ incentives for over-prescription.

The effects of the NEMS to date, however, have not been completely encouraging. Although the average costs per prescription and total drug costs have declined significantly, as evidenced in case studies (Li et al. 2013, Yang et al. 2013), the inappropriate use of medications, particularly the over-prescription of antibiotics and injectables, remains prevalent in primary care facilities (Chen et al. 2010, Yang et al. 2013, Song et al. 2014). Other studies have pointed out that the limited range of drugs on the list and the availability of certain drugs have become major concerns for frontline physicians (Chen et al. 2010, Tian et al. 2012, Zhou et al. 2014).

A more comprehensive primary care reform has come from Ningxia Province. Synthesizing both supply-side and demand-side interventions, this reform has sought to improve primary care services by radically altering a wide range of incentives. The NCMS has seen its benefit package reoriented away from inpatient care towards outpatient care, while a tiered reimbursement structure further incentivizes patients to visit primary facilities. The arrangement for paying providers was also changed from fee-for-service to capitation with pay-for-performance incentives. The outcomes thus far are mixed: Although the intended increase in outpatient utilization at village clinics has been achieved through the insurance reform alone, the two interventions in combination have yielded no effect on health care utilization, suggesting that the supply-side intervention has failed to change care-seeking behaviours (Powell-Jackson et al. 2014).

The evidence gleaned to date is far from being conclusive, but it is clear that the huge government investment in primary care has not yet been fully translated into increased utilization of affordable quality care and appropriate care-seeking behaviours. The success of primary care reform is ultimately dependent on concerted efforts to deal with certain aspects of the reform such as the training of a large number of competent general practitioners, the provision of supportive insurance reimbursement arrangements, government regulation and accountability (Wang et al. 2011a).
3.4. Public hospital reforms

Taking the lion’s share in service delivery, public hospitals are the cornerstone of the Chinese health care system. Following the dramatic deterioration of the primary health system during the country’s transition to a market economy, the provision of health care in China has become remarkably hospital centred. The absence of proper referral and gatekeeping mechanisms has further weakened coordination within the system, leaving the provision of care fragmented and inefficient (Liu 2004, Yip and Hsiao 2008). All economic incentives point to the competition for and the retention of patients for profit, whereas the considerations of quality of care and cost efficiency have had to take a back seat, leading to long queues and overutilization. As illustrated in the last section, public hospitals in China behave as for-profit entities. Various inappropriate behaviours, including over-prescription and bribe taking, have fuelled social mistrust towards the medical profession and significantly damaged the doctor–patient relationship (He 2014).

Recognizing the challenges in reforming profit-driven hospitals, both Premier Li Keqiang and his predecessor Wen Jiabao stressed that public hospital reform was the ‘hard bone’ in the comprehensive reform of health care. It has been acknowledged that the highly wasteful delivery system is the perverse engine behind China’s skyrocketing health expenditure and that the entire social insurance system would become unsustainable if supply-side reforms fail (Yip and Hsiao 2008). Notwithstanding the central role of public hospital reform, it has been the least understood part of the whole health care reform programme, in part due to its slow progress (Barber et al. 2013). Empirical studies on this aspect of health care reform are scant.

The sheer size of China frustrates any one-size-fits-all reform recipe. Nor is it the central government’s intention to generalize such ones at the early stage of reform. The government has selected 17 cities to embark on pilots, with considerable autonomy given on programme design. Some pilots are piecemeal reforms, and others with big ambitions have not made the expected progress. A few qualitative interviews with senior government officials have revealed the lack of enthusiasm at local level, primarily due to financial and efficiency concerns (He 2011).

Except for a couple of comprehensive reviews (World Bank 2010b, Barber et al. 2013), there are very few studies available on these public hospital pilots in the English language literature. Some major aspects, including payment reforms, separating revenues and costs, and the zero mark-up policy discussed above, all belong to the broad public hospital reform programme. The government has launched other programmes, such as the clinical pathways pilot that seeks to standardize the treatment of common diseases and contain escalating costs. A preliminary assessment, however, suggests the limited effects of these programmes. Profit concerns were found to be still driving the behaviours of both hospitals and physicians, illustrating that the incompatibility of old and new incentives considerably undermines the efficacy of the new reform measures (He and Yang 2015).

The slow progress of the public hospital reform has not allowed us to depict a picture with deeper insights. The embarrassing status quo seems to reflect a tricky policy gridlock where problem A must be solved in order to solve problem B, but problem B requires a solution to problem C, and the solution to problem C depends on finding a solution to problem A (He 2011). The painstaking search for a local reform recipe clearly mirrors both the complexities of the reform itself and the inability of governments to identify an overarching road map. A noteworthy trend lately has been the government’s plan to promote the development of private hospitals, in part to nurture competition with their public counterparts and serve the rising needs of the middle- and high-income classes. In a
recent article, Yip and Hsiao (2014) warned Chinese policy-makers to be wary about the potential damage that this move could cause. They stressed that privatization at this stage would further erode the delivery system before a primary-care-centred integrated model could be shaped.

4. New perspectives in this special issue

This special issue comprises six individual articles that cover most of the strategic aspects of the reform programme. As stressed above, we aim to comprehensively evaluate the reform by synthesizing the knowledge contributed by multiple research fields, including health economics, political science, public administration and institutional analysis. In this section, we integrate all the individual studies into the broader literature and reform context, highlight their central theses and articulate their theoretical contributions and policy implications.

The first article by Jiwei Qian echoes a growing body of literature that attempts to explain the past failures of China’s health care reform from the perspective of governance. Making extensive use of institutional analysis, scholars have attempted to explain the multitude of barriers encountered in health reforms in terms of fundamental governance problems (Ramesh et al. 2013). Hsiao (2007), for example, used the agency theory and contended that the dissonance between the pursuits of the principal (top political leaders) and the agent (the health bureaucracy) resulted in difficulties in reform implementation and this had been compounded by the boycott by the medical axis of power formed by the health bureaucracy, hospitals and doctors that resists any reforms deemed harmful to their interests. Huang (2013) focused on problems within the central administrative machinery and argued that the buck-passing polity largely explained the poor coordination within the fragmented central bureaucracy that resulted in policy deadlock.

In the first article, Qian examines both horizontal and vertical institutional arrangements within the Chinese bureaucracy, which are found to be unconducive to the appropriate allocation of authority. At the horizontal level, the existing mechanisms of interdepartmental coordination appear less helpful in terms of exchanging support and enforcing bargaining results. The vertical institutional structure built on a performance evaluation system has not yet given local cadres enough incentives to take health reform forward from the back seat. Qian’s article further elucidates the respective roles of health administrations, local governments, social insurers and public hospitals in the complex map of institutions. Highlighting the critical importance of relocating authority, this study provides an alternative perspective from which to analyse many ongoing governance reform efforts such as the establishment of an independent regulatory organization to govern public hospitals and the integration of the management of social insurance schemes.

The second article is written by three public administration scholars. Shaolong Wu, Chunxiao Wang and Guoying Zhang respond to a strategic question: has the health care reform improved efficiency? This is a very timely study in view of the rising concerns about the efficiency performance of the enormous financial investment that has been made since the reform commenced. The authors particularly focus on the provinces that played the most significant intermediary role in the execution of the reform. Analysing a panel data set covering the period between 2003 and 2011, this study reports rather grave findings. Despite heavy investment, the additional financial inputs have actually resulted in efficiency losses in both medical care and public health. In addition, regional disparities have widened rather than narrowed.
The results of this study, albeit astonishing, should actually be interpreted with caution. First, the efficiency defined by the authors mainly refers to technical efficiency. Second, this article attributes the decline of technical efficiency primarily to the reduction in the use of advanced technologies and new pharmaceuticals. This is, as a matter of fact, the exact change desired by reformers given the pervasive abuse of high-tech procedures and expensive drugs in the Chinese health system. As stressed by the authors, more efficient allocation of resources should be built on more scientific payment methods.

The third article contributed by three health economists examines the inequality of social health insurance in China, an issue with critical policy implications. Sen Tian, Qin Zhou and Jay Pan made extensive use of economic analysis and found that the current flat premium structure of major social insurance schemes has actually resulted in an unintended situation in which the poor cross-subsidize the rich. Because of low benefits, high co-payments and deductibles, and the varying degree of elasticity, the benefits of health insurance are unevenly distributed across high-income and low-income groups. In spite of having coverage, low-income groups in fact get less benefits. The authors thus propose an unfairness index to measure the inequality of insurance programmes. Income-adjusted premiums are also recommended to mitigate the apparent inequality.

This study renews the discussion on reforming China’s social health insurance system. It has long been acknowledged that the fragmented insurance system needs to be integrated in order to equalize entitlements for all citizens and allow a powerful single purchaser to control provider behaviours (Ramesh et al. 2013). Others have made the criticism that the conservative nature of the social insurance bureaucracy has made it preoccupied with the avoidance of financial risks for the insurance funds but less active in taking aggressive measures to alleviate the out-of-pocket burden, as evidenced by the enormous unspent surplus of insurance pools (Hsiao 2007, Yip and Hsiao 2008). Critics also point to the limited managerial capacity of health insurance agencies (Yan et al. 2011). This article sheds new light on the recalibration of the premium rate and its economic consequences for equality. Its recommendations are of high policy relevance.

The fourth article is written by a political scientist. In this study, Kerry Ratigan seeks to answer an interesting research question: Why has China’s experimentalist approach, which has been successful in promoting economic growth, not produced good outcomes in health care? Policy experimentation in a highly decentralized system constitutes a salient feature of the governance style of the Chinese party-state. Strengthening policy adaptability by allowing subnational variation has been the key logic driving health policy implementation (Wang 2011). The abundance of empirical evidence received thus far, however, portrays a rather mixed picture, especially in rural areas. While the NCMS has swiftly covered the majority of peasants within a fairly short period of time, high catastrophic payments and inefficient service delivery have largely remained. The author employed both a quantitative survey and qualitative in-depth interviews to investigate rural health reform in three representative provinces. The findings presented largely reinforce those of other quantitative studies, including villagers’ dissatisfaction with the NCMS reimbursement rate, the rapid increase in costs and inadequate services.

While, in general, these findings are hardly new, the contribution of this article lies in its efforts in explaining the notable limitations of experimentalism in China’s rural health reforms. The author argues that initial conditions explain the observed regional variation, with poorer provinces having developed a style of governance that is not conducive to experimental policy-making. The incentive structure embedded in the administrative system also serves to impede effective rural health reform. This article sheds new light
on the role played by governance and public administration in implementing health reforms at the local level.

Written by Xiaoyun Liu and colleagues, the fifth article investigates the progress of primary health care in this round of comprehensive reforms. In global efforts on health system strengthening (HSS), primary health care has been increasingly recognized as vital to ensure equity, accessibility and efficiency and conducive to cost containment (WHO 2008). It is also seen as a key recipe for overhauling China’s crumbling health system. The ongoing reform has put tremendous resources into strengthening the primary health system, especially in rural areas.

This article used both primary and secondary data to examine the progress. Albeit descriptive, this study conducted in three representative provinces provides a very timely update on the situation of township health centres and village clinics, the major providers of health services in the countryside. A series of positive outcomes have been found, such as increased government subsidies and revenues, more training opportunities, more appropriate doctor payment mechanisms and increased utilization of services. Several drawbacks also surfaced from the authors’ field investigations, including health workers’ continued complaints about low income, staff recruitment and retention difficulties and the quality of staff training programmes. These issues warrant close attention from policymakers.

The last article is contributed by a group of health policy researchers and practitioners. Zhongliang Zhou and colleagues shift audiences’ attention from rural primary care to county hospitals, which provide nearly half of the country’s inpatient services. It is well known in the health policy research community that Chinese public hospitals receive half of their income from drug sales, a situation rarely seen in other health systems. This has aggravated the escalation of costs, over-prescription and expensive access to care. A flagship programme of the national health care reform is to abolish the 15–25% price mark-up for pharmaceuticals that has been in place for more than two decades. In the implementation of the NEMS, the zero-mark-up rule has already begun to take effect in community-level facilities. As the policy has not yet been scaled up to secondary or tertiary facilities, little is known about its effect on county hospitals. This study fills the gap.

The authors employed a comparison group-treatment group design and difference-in-difference strategy to evaluate the effects in two county hospitals in Shaanxi Province. They found a marked increase in service provision and total hospital income following the intervention. This suggests that hospitals are resorting to increasing both inpatient and outpatient services to make up the shortfalls resulting from the financial losses due to zero mark-up. The authors argue that the increased service volume is an outcome desired by the government because it may suggest improved accessibility. This study provides important evidence for policy-makers regarding the potential effect of the zero-mark-up policy when implemented in secondary providers.

5. Concluding remarks

Needless to say, the reform has produced laudable achievements in the past five years; particularly impressive is the rapid expansion of insurance coverage. Yet, as China is moving into the ‘deep water zone’ phase of health reform, more fundamental deficiencies of the system must be addressed in an orchestrated fashion. A series of tentative conclusions can be drawn from the received wisdom of the emerging literature as well as from the new evidence presented in this special issue.
First and foremost, social insurance is not the silver bullet for China’s health care reform. Financial protection will continue to be limited if the rapid escalation of health care costs remains unharnessed. A major elevation of benefit standards is also needed in order to better shield the insured population against catastrophic medical spending. However, the fragmentation of insurance and limited managerial capacity have not enabled social health insurance to fully unleash its potential. The creation of a capable and prudent third-party purchaser is of strategic importance in the system’s march towards strategic purchasing (Xu and Van Deven 2009, Yip and Hsiao 2009b).

Second, despite the evidence of insurance-induced demands, the root causes of China’s double-digit cost escalation stem from the inefficient delivery system. Realigning the perverse incentives is a formidable mission in light of the massive tangible as well as intangible interests involved. The sluggishness of public hospital reform provides clear evidence of the difficulties encountered. While a battery of new initiatives, such as the clinical pathways, the separation of revenue and cost, and salary reform, have produced mixed results, payment reform appears the most promising ‘control knob’, to use the language of Roberts et al. (2002), to realign the fundamental economic incentives. There is a growing consensus that reform of the delivery system ultimately hinges on provider payment reforms (Ramesh and Wu 2009, Yip and Hsiao 2009b).

Third, the mixed outcomes of the many new initiatives, such as the NEMS and primary care reform, reveal the path-dependent nature of health systems. Bloom (2011) has insightfully shown that specific policy interventions are much less important than the way the reform process is managed because any health care reform must ultimately tackle the embedded underlying institutional arrangements if it is to succeed. A constellation of fast-moving as well as slow-moving institutions coexist within the broader institutional environment (Meessen and Bloom 2007). Strategic attention must be given to the compatibility and the interaction between these two categories of institutions that are the ultimate source of the poor reform performance observed thus far.

This relates to the final key message of this special issue: governance matters. Reformers need a holistic vision of good governance encompassing the full range of institutions (formal and informal), incentives (economic, administrative and social), and actors (central and local, public and private). Managing the process of a reform of such magnitude as the ongoing one requires rich interdisciplinary wisdom. This special issue seeks to make a contribution.

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Note
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