

Health Provider Payment Reforms in China: What International Experience Tells us

Executive Summary

This paper examines health provider payment reforms in China—the present system and how it evolved, and changes that would improve it in the context of ongoing health reform. The paper begins with a brief introduction and background discussion followed by two substantive sections—experiments with case-based payment systems, and experiments with alternative government budget payment methods. This is followed by an examination of what has worked in China and elsewhere. The concluding discussion considers lessons for China and next steps.

Background

The 2003 SARS outbreak led to rapid increase in government investment in public health care. The National Cooperative Medical System (NCMS) was launched in 2003, and coverage under the Urban Employee Basic Medical Insurance (UEBMI) was extended. The pilot Urban Resident Basic Medical Insurance (URBMI) was launched in 2007 for people outside the formal economic sector. The community health care system received more financial and political support, and in 2006 top leaders promised to establish a universal coverage system for basic health care.

Many policy instruments and reforms have been implemented to use NCMS, Basic Medical Insurance (BMI), and government health budgets more efficiently. These include alternative payment systems, reduced drug prices, essential drug lists, controlled use of high technologies, and strengthening the primary healthcare system.

Payment system reforms have focused on two areas in recent years—first, a case-based payment system in NCMS, BMI, and individual hospitals; and second, reforming methods of government budget allocations to primary health providers. This review analyzes the impact of these two reforms on cost containment, utilization, and the quality of health care.

The case-based payment system

A common problem with case-based payments, including NCMS and BMI, is the limited numbers of diseases that are covered. If too few diseases are covered, the overall effect on cost containment is limited. Billing departments can "game" payers by coding cases that are profitable and billing outside cases when costs exceed the maximum limits.

The case-based payment system might contain costs, at least for patient out-of-pocket costs, but it may lead to concerns about quality of care. Health providers can employ tactics such as reducing the length of patient stays, increasing readmissions, admitting outpatients who do not need to be hospitalized, and treating patients inappropriately.

Because of such possibilities, any assessment of the effectiveness of case-based systems must examine overall medical expenditures. Reducing medical expenditures on *covered* diseases will not reduce expenditures for *all* diseases, because costs of covered diseases can be shifted to diseases outside the payment system—as was shown in Zheng'an, where medical expenditures on diseases outside the case-based payment system increased rapidly. Rigorous studies have not been carried out on cost-shifting behavior, but a case-based payment system that covers relatively few diseases is unlikely to have a significant impact on overall medial expenditures.

Compared with fees-for-services, another concern with case-based payments is the reduced use of resources in treating covered diseases. Even if NCMS and BMI monitor and investigate patients' satisfaction, quality will not necessarily improve, because information asymmetry across health providers, regulators, payers, and patients may still result in inconsistent incentives for these groups. More systematic assessment is needed in this area.

The way forward: Case-based payments or DRGs?

Three aspects of case-based payments have proved popular. First, a case-based system is generally easier to design, develop, and manage than Diagnosis-Related Groups (DRGs). Organizers can select a few diseases for case-based payment systems, whereas with DRGs, it is more complicated to classify every disease into an exhaustive set of groups for payment. Individual hospitals can implement case-based payments with selected diseases, in contrast to a DRG system, which typically requires third-party inputs from either government agencies or insurers. A DRG system may require data from several hundred thousand cases. This means that NCMS and BMI will have to carry out data collection and analysis on a continuous basis.

Second, hospital information systems must be further developed before DRGs can be fully implemented. Rural NCMS data systems have improved significantly, but still lack adequate coding space and coded data of diagnosis categories.

Case-based payment experiments have not worked well in places where only a few diseases were covered and no other efforts were made to support new payment systems. Weak management and information systems also affect implementation of case-based payment experiments.

Finally, the current incentives are increasing numbers of admissions; DRGs and case-based payment may need to be "blended" with hospital global budgets as has already been tried in Chongqing.

Alternative government budget payment methods

Many other reforms in government health budgets were carried out during the latter half of the 2000s, especially in urban areas. The goal of alternative government budget

payment methods is to achieve higher quality health care, greater appropriate utilization, higher public satisfaction, more efficient resource use, and reduced costs. A form of accounting known as Separating Revenue and Expenditure (SRE) has been popular recently. In SRE, revenues generated from user charges are handed to the government finance authority, pooled with budget funds, and allocated with the government health budget. The funds are returned from the finance authority to health providers are determined by an assessment or by a fixed percentage.

SRE impact studies are scarce partly because of relatively recent implementation, but SRE appears likely to have had positive impacts on medical costs, health workers' behavior, health care utilization, and public satisfaction. Yao et al. (2007b) reported several positive impacts of SRE, including cost containment, health care utilization, drug prescription behavior, public satisfaction, and financial sustainability. Elements of these pilots were integrated into China's national health reform plan that was announced in April 2009.

Other options piloted have been "Pay-for-Performance," or P4P, and more recently outpatient capitation has emerged for primary care and outpatient services as increased outpatient pooling.

International experience

Reimbursement mechanisms for health care institutions and workers can be divided into time-based, service-based, or population-based. With time-based payment, providers are paid according to time spent providing the service irrespective of the number served. In service-based remuneration, payment depends on the number of services provided or patients treated. Population-based remuneration is payment according to the size and composition of the population served by the facility irrespective of the number of patients actually attending.

The input-based approach allows no flexibility to respond to local needs or changes in technology or treatment patterns. Basic population norms encouraged a certain degree of input-dominated equity, but the actual distribution was influenced both by the initial distribution of facilities and political, social, and economic factors. Areas that generated more revenue had greater influence over their share than those with lower revenues.

Many countries have moved away from input-based budgets and salaries for providers. With a new purchaser-provider split for insurance (as in China now), individual providers (as employees in facilities) of insurance schemes are sometimes taken out of civil service, as in Estonia. Employees may be protected by employment laws, but they then contract with facilities, not with the government. Facilities typically have some flexibility to hire new employees and let unneeded staff go. The system of payment is then re-oriented towards services or activities, as measured by outputs or even outcomes. Today, sophisticated purchasers link payment with service performance, service outputs, and ultimately, patient health outcomes (although the latter is still not used much). They may

also couple "performance-based" mechanisms with demand-side mechanisms such as co-payments or deductibles.

Service-based approaches can be categorized by the unit of service, and payment is typically made by purchasers on a retrospective basis after the service is rendered. "Fee-for-service" (FFS) as used in China pays for basic units of services to individual providers, such as office visits, x-rays, or laboratory services. The level of remuneration under FFS can be determined retrospectively or prospectively (as in Canada and in Japan).

For inpatient care, per day ("per diem") payment is often the first basic unit of payment beyond FFS that purchasers utilize. Like FFS, per diem methods are administratively straightforward but can encourage increases in volumes (overproduction) of services. Per diem is being piloted in Lu Feng county in Yunnan Province with some success.

During the last two decades, new and more sophisticated payment systems have evolved with units of payment becoming broader, and prices for bundles of services set mostly on a prospective basis. Purchasers have adopted fixed-price payments for defined products that mimic clinical episodes, such as an ambulatory surgery, and for inpatient stays. Fixed-price payments, if administered correctly, control costs and improve efficiency. This approach removes incentives for hospitals to over-provide services. DRGs are the best example of these mechanisms. With its effectiveness in lowering costs and improving efficiency, many countries have adopted some form of DRG payment system but with modifications to counteract the negative impact of DRGs. Perverse incentives with DRGs include risk selection, "up-coding" patients to more costly groups, providing intensive treatment to shift patients to higher cost categories, and the lack of motivation to improve quality.

Two methods are most promising for China in light of international experience so far: innovative DRG payment for hospitals, and pay-for-performance (P4P). These are not mutually exclusive. P4P can be combined with capitated budgets for primary care providers or DRG payments for hospitals. P4P has seen a resurgence recently. It is widely viewed as a tool both to improve the performance of providers and to improve quality and actual health outcomes.

A review of P4P in disease-specific programs showed incentives at the provider level such as direct payment, food packages, vouchers, other material goods or free drugs to private providers. Globally, P4P programs cover a range of measures including process and outcome measures (case detection, appropriate referral, treatment completion or cured patient), and reward providers at the individual provider and the institutional or team level.

A significant impediment to P4P in the developing world is the initial financial outlay to set up adequate performance monitoring and measurement systems. Lack of data to establish indicators or targets may delay or even halt implementation in some countries. Other steps needed for P4P success include: adequate communication of the new

incentive program to providers; frequent monitoring and evaluation; and administrative management to ensure that incentives are appropriately distributed. Frequent evaluation and flexible implementation is needed to counter problems that may arise. Programs that have shown the most success are often uncomplicated in that the focus is a single activity, respond to a specific disease, have standardized treatment, have fewer than ten indicators, or have a specified quantity of care defined.

P4P also has limitations. In any system that rewards behavior, individuals may "game" the system for more reward. Requiring providers to provide data may encourage them to falsify reports. Unmeasured activities may decline as providers focus on measured indicators. Eichler and Levine list seven possible mistakes in designing these P4P incentive systems:

- Failure to consult with stakeholders on the design of incentives;
- Failure to adequately explain rules;
- Entailing too much or too little financial risk;
- Having too many or imprecise definitions of performance indicators or unreachable targets for improvement;
- Tying the hands of managers so they are unable to respond to the new incentives;
- Paying too little attention to systems and capacities for administering programs; and
- Failing to monitor unintended consequences.

Lessons and next steps for China

First, although P4P has gained momentum as a way to improve provider performance, implementing P4P in China must be carefully conducted. The P4P model often leads providers to focus on activities for which performance is measured, and it neglects those for which payment is not tied. Strong P4P incentives for some services may reduce quality of other services. Success with P4P depends on good monitoring and objective data.

Second, for China to have a sustainable healthcare system, it must reform its delivery system. The current system is fragmented and hospital-based. It is not focused on real utilization of cost-effective primary and outpatient care, and is not suitable for a population that is increasingly affected by chronic conditions which often require integrated and coordinated care across a number of providers. Mechanisms such as primary care capitation can be utilized to help restructure the delivery system.

Third, provider payment does not act on its own. The context in which providers work affects how provider payment manifests itself. For example, providers in solo practice behave differently than those who work in group practice, even if both are subject to FFS payment. The latter is also affected by norms set by the practice. The current discussion of provider payment in China has often not fully integrated these organizational factors. Fourth, although many hospitals in China are moving towards DRG payment systems, there is little focus on how incentives can be transferred to physicians working in hospitals.

Fifth, the extent to which provider payments affect provider behavior depends on the market share of payers who initiate payment changes. In urban areas where there are separate insurance schemes, unless the incentives of the different payers are aligned, the effect (or "bite") of each payment method on a provider's income will be limited. Similarly, if physicians have multiple jobs, the effect of incentives from each "job" will be limited.

Finally, provider payment incentives are not a panacea for affecting provider behavior. Many other factors, including professional ethics and the effect on the relationship between physicians and patients, must be developed in parallel with provider payment change.