
Best practices for low- and middle- income settings

We conclude the paper with lessons learned, particularly for low- and middle-income settings that are increasing their public funding to health and looking to other settings for useful experiences. While this study included many highly developed health care settings, it is notable that all policy-makers continue to strive to align payment levels with incentives for quality care. The lessons learned from these settings include investing in data infrastructure and institutional capacities, planning sequenced implementation of changes, using prices as instruments to drive health policy goals, and establishing systems of monitoring and evaluation to systematically identify adjustments and modifications needed to attain health objectives.

8.1

Investing in data infrastructure

Sound pricing and payment systems require accurate information about costs, utilization, and quality of care. Information systems can be one of the most important barriers to the implementation of provider payment mechanisms in low- and middle-income settings. DRG-based financing for public hospitals requires substantial investments in data collection and hospital coding. Data collection infrastructure, coding of key information, including procedures and diagnoses, and skilled human resources in hospitals are needed investments for generating the minimum dataset required for accurate analysis.

Yet, having only rudimentary data should not prevent attempts to initiate reforms in pricing policy. In many settings, pricing work can start even though only skeletal data sets are available. Where data infrastructure is not yet in place, information can be used from available sources initially. This may include information from settings with similar cost structures, historical reimbursements, or regional price averages from commercial health insurer databases, for example. At the same time, the minimum datasets required can be identified. This may focus on large expenditure items and data that are feasible to collect. Figure 24 is an example of this process underway in Malaysia.

Figure 24

Costing health services in Malaysia

The Ministry of Health (MoH) in Malaysia, including the Institute for Health Systems Research (IHSR), initiated costing exercises to estimate the budget requirements for delivering health service in government facilities. To calculate the costs for hospital discharges, outpatient visits, and daycare visits, the IHSR research team collected data using provider questionnaires and estimated the share of organization-level expenditure by departments.

One public clinic that uses electronic medical records was selected to conduct a costing exercise to determine the cost per visit for patients with specific conditions. Four people developed a costing template for each service using the patient as the cost object and collected data about staffing medicines, medical and non-medical consumables, and equipment and devices. The team calculated the cost of 310 separate services grouped into 11 visit categories. The visit categories were acute upper respiratory tract infection, prenatal care, routine child health examination, primary care for hypertension and Type 2 diabetes, dental exam, dental caries, fever, contraceptive management, nail removal, and dengue rapid test. They added up the costs of services in each category to arrive at an average cost per patient visit per category. Included in the costs were services and supplies, assets, grants and fixed charges, building, and land. Overhead costs were distributed by assuming average resource use across patient types, and personnel costs were assigned based on the average staff time spent on specific procedures.

For establishing DRGs in hospitals, the team costed all hospital inpatient cases using a top-down approach to measure and value personnel, medical products, overheads, and capital resource use. They plan to cost intensive care unit stays because those stays are known to be heterogeneous in their resource use. The team also plans to use the bottom-up approach to cost expensive laboratory tests and radiological interventions. Between 12 to 50 staff at ten hospitals were required to complete the exercise over a four-month period, including one month for verification.

Source: Adapted from Özaltın & Cashin, 2014.

8.2

Building institutional capacities

Given the technical and political complexities of price regulation, in several settings, entities with the legal authority to set up and control payment rates have been established. The mandate of these agencies is to develop a credible price schedule. This includes grouping and ordering services based on their complexity, taking into consideration the available health resources, burden of disease, and clinical protocols and pathways.

Whether an independent entity or designated institution, characteristics of successful systems include political independence, formal systems of communication with stakeholders, freedom from conflicts of interest, and political standing to resist both industry capture and political pressures. In some cases, such entities have independent sources of funding that are separate from general revenues. Clearly delineating the technical task of establishing the price schedule

from the political process of negotiating payments to health care providers has also been recommended (Kumar et al., 2014).

There are multiple stakeholders involved in price setting and regulation, and systems have failed in the past when they faced political challenges (Barber et al., 2018). Critical to the work of price setting is a process that also involves stakeholders to establish a base price and identify the cost elements that are covered by the unit of payment. To do this objectively, it is important to establish formal systems of collaboration with medical doctors and specialists, health care providers, and payers. Formal and transparent systems can help establish a balance between maintaining dialogue with stakeholders while also observing objectivity and independence.

Appropriate institutional oversight can help insulate the authority from external influences. Mechanisms for price setting are instruments to achieve broader system goals. Where clear policy goals and priorities have been articulated, they can be used to guide action and may avoid overly complex implementation processes. Regular public reporting on performance standards and targets linked to the overarching policy priorities can increase accountability. Such mechanisms also allow for modifying processes that have become overly complex that inhibit performance and responsiveness.

An important issue for low- and middle-income settings is how to make use of all health resources available to attain coverage and financial protection. Price setting for only one part of the health system (either public or private) could create incentives for providers to shift care to other settings that are not subject to price regulation (Frakt, 2011). This would diminish the impact of pricing policies on coverage and desired outcomes. A comprehensive price setting system could be used to create a level playing field and eliminate the fragmentation across public and private sectors. In this sense, price schedules are a public good, whereby private health plans can use prices set by the government as benchmarks. Given finite resources for health, price regulation can be used to promote greater value for all payers, and both public and private health spending.

8.3 Planning sequenced implementation

Particularly for settings that employ line-item budgets, substantial long-term planning is needed to change payment systems, estimate prices, and use prices and payment systems to reach policy goals. Figure 25 illustrates an example of a planning exercise to implement such changes over a period of a few years including investing in institutional capacities to sustain changes in how providers are paid (Özaltın and Cashin, 2014).

Figure 25
Hypothetical example of sequencing the change in payment methods

	Preparation	Initiation	Strengthening implementation
Planning activities	Analyse utilization of health services across providers. Plan to gradually consolidate and reducing budget line items.	Plan new formula for setting budget caps that gradually introduces volumes. Begin consolidating and reducing line items for budget formulation and implementation.	Establish caps and budgets based on data about activities and population. Flexibility given to providers to move budgets across line items.
Primary health care capitation	Estimate population for capitation. Conduct cost analysis of PHC benefits package to estimate base payment. Estimates adjustments for different regions.	Introduce new formula for calculating base payment. Introduce mechanisms to account for mobile and migrating populations. Apply geographic adjustments.	Initiate electronic registration for population database for capitation. Expand incentives for health promotion and disease prevention.
Outpatient bundled payments	Analyse volumes and delivery for acute outpatient services: day surgery, dialysis, cancer.	Explore bundled payment options for episodes of care among different providers.	Introduce bundled payments with a cap, and incentives for the management of chronic conditions.
Hospital payments (based on DRGs)	Analyse current case-based groupings and cost per case distribution within each group.	Develop new case groups and adjustable base payments. Conduct simulations.	Expand number of groups, adjust for severity and comorbidities.

Source: Adapted from Cashin, 2015.

For any payment reform, the starting point is developing a classification system of the services that are currently being delivered. This involves an analysis of utilization and costs for the different categories of care and facilities, and a plan to consolidate budget line items. Subsequently, new formulas for setting budget caps can be initiated to gradually introduce volumes. The budget formulation process can utilize consolidated line items for implementation, and data collected in the first stage can be used to calculate base for payments while incorporating adjustments for payment adequacy by region. During implementation, the budget planning process can be based on data about activities and population, and greater flexibility given to providers to move budgets across line items. Investments in health information systems could allow for electronic registration of the population to create the database for capitation. Finally, monitoring systems could inform adjustments in prices and payment systems to expand on incentives for important public health goals, such as quality care and disease prevention.

This is not to endorse any one payment or pricing method, which should be determined based on local needs and capacities. For example, should there be a plan to implement capitation, in many settings, the first task would be to decrease balance billing for covered services that may lead to catastrophic spending.

Low- and middle-income settings typically initiate payment reforms while also building critical capacities in health systems. Given that the strength of these fundamental capacities can affect the speed and quality of implementation, continued investments in broader health systems capacities should receive greater attention. Unbiased clinical care standards and treatment pathways are the basis of purchasing and pricing. Managerial capacities at central and health facility levels are needed to analyse and implement changes and manage contracts. Strong professional associations can establish systems of self-regulation and enable participation in negotiation processes. The strength of professionals representing primary care, for example, may affect the extent to which primary care is recognized and rewarded. Hospital autonomy can ensure that hospitals have decision-making authority to respond to incentives for efficiency. Policy-makers can shape the health care market through trade and competition policies, which can influence hospital mergers and acquisitions that affect prices.

8.4

Establishing prices that approximate the most efficient way of delivering care

Prices should approximate the cost of delivering services in the most efficient way that enables quality and health outcomes. This minimizes incentives for inappropriate levels of care and enables accurate budget projections. Costing aims to collect information that reveals the costs of delivering services and providing quality patient care. To do this, different methodologies have been used to approximate the costs of health services and allocate indirect costs. Costing studies should be sufficiently large to capture cost variations. In instances where unit costs are not available, other options include using information and experiences from other settings.

Costing studies have important limitations in reflecting costs at one point in time within existing service delivery structures, including their inefficiencies. Costing exercises can be useful if they reveal information about the underlying cost structure of service delivery and enable the development alternative scenarios about modes of service delivery that offer higher levels of efficiency and quality. Thus, costing exercises should not be considered one-off exercises. Costing is a part of an ongoing process to collect information about the different alternatives to align resources and service delivery configurations with the desired outcomes, i.e., coverage, quality, financial protection, and health (WHO, 2015b).

8.5

Using prices as instruments to promote value for health spending

We have emphasized that prices should reflect actual costs. However, the price level not only ensures adequacy in covering the costs of delivering services but also provides important incentives for health care providers. In each of the settings studied, pricing and payment systems are recognized as powerful tools to drive broader health system goals.

Geographical price adjustments are used to ensure that health facilities are adequately reimbursed and compensated for factors outside their control. Prices are also adjusted to promote greater coverage of certain services or access for specific populations to attain broader policy objectives. For example, prices have been adjusted in many settings to ensure the provision of care in rural and remote areas and for those providers treating high numbers of low-income or high-cost patients. Regulated prices are frequently modified to promote education, research, and innovation in addition to national health priorities. Pricing policies have been used to control volumes and overall expenditure levels through reductions in prices for repeated unplanned outpatient visits or hospital readmissions. A number of countries prohibit or restrict balance billing. This ensures that patients are fully reimbursed at regulated prices and ensure that covered services can be accessed and remain affordable.

8.6

Strengthening the national role in setting prices

While the methods for setting prices vary and are grounded in historical developments, we can conclude that unilateral price setting by a regulator eliminates price discrimination and performs better in controlling growth in health care costs. In contrast, individual negotiations between buyers and sellers are the weakest along these same parameters. Both collective negotiations and unilateral administrative price setting also have the potential to improve quality better than individual negotiations. Generally, macro-budgeting tools and limits on the rate of budget growth have provided strong controls on expenditures under different payment systems.

Where prices are used as instruments to attain policy goals, a strong central role in guiding the process is required. Among those settings in this study, including the USA Medicare program and the Maryland all-payer system, national governments have played active roles in price setting and price regulation to reach policy objectives. Across many settings, the price and fee structures are centrally determined (i.e., France, Japan, the Republic of Korea, and Australian specialists working privately).

In countries such as Germany, fees can additionally be tailored to state specificities reflecting the country's federal structure.

8.7

Establishing systems of ongoing revision, monitoring and evaluation

Payment systems and price levels are being continuously revised, particularly because there are many factors driving prices that are not under control of health care providers such as input costs. When a new technology is introduced, evaluations are required to compare its impact with existing technology. In addition, the total fiscal resources for health continually change. At the same time, health care providers and other stakeholders quickly adapt to the incentives (and disincentives) inherent in each payment mechanism and try to "game" the system to their benefit.

Flexibility is needed to respond to the evolution of pricing and payment methods, to identify changes in the market structure and factors outside of the control of providers, and to adapt to unintended changes in provider behaviour so that the system can function as intended. In many settings, systems of monitoring enable adjustments in response to unintended consequences or negative incentives. Ongoing reviews can inform about whether the pricing and payment systems are on track towards the larger system goals of financial protection, efficiency, coverage, and quality. Reviews at specific regular intervals may be better than waiting for a problem to arise.

Given the potential impact on provider behaviours, it is important to maximize the use of pricing policies to attain better outcomes. There are many experiments underway to link pricing and payment systems to quality of care through bundled payments and value-based purchasing, for example. Price adjustments and payment reform need to be monitored and evaluated to dynamically adjust the price level to induce desirable health care provider behaviours. In addition, unintended consequences can result. More research is needed, for example, about the impact of the different methods of price setting and regulation on quality of care. Systematic testing and evaluation is critical to inform about the impact of payment systems on behaviours and determine the feasibility of scale-up within a given setting and replicability elsewhere.

In conclusion, policies about pricing and purchasing health care services attempt to overcome the imperfections of health care markets. They are grounded in each country's institutional history, and level of resources dedicated to health. In each setting, approaches have been implemented that help address the broader system objectives – whether to promote better coverage, quality, financial protection, and health outcomes. Ultimately, it is these objectives that guide policy choices.