

Costing reforms towards UHC: considerations for South Africa

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1. Overview

“How much will the reform cost?” is a common and sensible-sounding question in planning any major health reform. Indeed, it is a question that national finance authorities have to ask. Unfortunately, the answer is complicated – although the expectation is that it is simple and straightforward. The accounting view proposes an average cost of service production that can be calculated and these unit costs can be used to project future scenarios based on different levels of service use. The implicit assumption is that cost and production functions for health services are essentially fixed.

However, it is misleading and potentially dangerous to use current unit costs as the basis for projecting the future for three reasons.

First, we don’t know where we are on the cost function.

Cost is a function that describes the relationships between inputs and outputs. Any unit cost that we observe in a cost accounting study is just one point on a curve – but we do not observe that curve.

Second, we don’t want to lock today’s inefficiencies into future estimates. The observed costs –or more accurately, expenditures –also embody inefficiencies that exist in the health system.

Third, changing the health system’s cost structure by re-configuring service delivery is a legitimate objective of many health reforms. Therefore, costing studies can be very useful – but only if they reveal information on the underlying cost structure of service delivery and enable the modeling of different scenarios using various assumptions about prices, the impact of incentives, changes in service delivery configuration, and levels of service use, e.g. primary care driven system.

For example, there are high cost scenarios (e.g. costing based on a hospital-centric configuration, using prices similar to those that currently exist in the private sector, and paying providers on a fee-for-service basis); as well

as low cost scenarios (e.g. unified national pool that incorporates risks of the whole population, focused on primary care service delivery with total expenditures driven by current public sector prices, and payment mechanisms that operate within an overall budget cap).

Another critically important policy aim is to increase administrative efficiency. For example, would the new administration of National Health Insurance (NHI) be additional to the current bureaucracy (e.g. for quality assurance mechanisms)? Will the information systems required to run the pooling fund replace those currently used? What will be the implications for productivity in response to changes in provider payment methods? These fundamental choices need to be considered as planning proceeds –and a good cost analysis can help to raise these issues that encompass not only the national health insurance fund but the implications for the system as a whole.

Ultimately, “what will the UHC cost” depends critically on how it is designed and implemented. In that sense, looking at costing scenarios and assumptions may be valuable for raising some core policy issues. The process thus brings to the surface key choices and implementation issues that have to be made to enable the government to sustain the reforms.

What will not be useful is a focus on getting to “the number” – some point estimate that offers a false certainty about what the resource requirements will be.

By using cost-accounting, projected resource requirements frequently are considerably more than currently available or reasonably projected revenues. This can lead to an endless cycle of revisions and efforts to dream up new revenue sources—thus focusing on issues that have more to do with tax policy than health policy. The experience of Tanzania is instructive –where the focus on “filling the gap” diverted policy attention away from where it needed to be: how to enable their new National Health Insurance fund to pool diverse funding sources and develop into a strong purchaser to drive efficiency and equity gains.

In summary, “what will NHI cost?” is the wrong question – or at best – an incomplete question. It would be better to frame the costing question around the implications of different scenarios for implementing reforms towards achieving UHC.



2. Changing the cost structure for efficiency gains

Health care reforms are not only about getting everyone in the same pool and unifying benefits. Addressing underlying inefficiencies must be core to the NHI strategy if UHC is to be sustained. As the USA experience shows, there is no such thing as “enough money.” Thus, reforms need to also change the cost structure of the health system. But what does this mean exactly?

What’s an example of change in cost structure?

An important example of a change in cost structure is reform that promotes more effective service delivery systems as a whole. A major change worldwide – consistent with WHO’s approach – is shifting to primary health care (PHC). It will cost less to provide services (i.e., the benefits package (BP)) if PHC is strengthened sufficiently to address the vast majority of health issues.

Reforms that change the cost structure of how the system delivers health services to the population will, in turn, have implications for the costs of these reforms. Therefore, a high priority for cost analysis would be to estimate the investments needed to strengthen PHC sufficiently to change the cost structure in other parts of the health system. Other examples of policy that can change the cost structure by influencing demand include health promotion, prevention, and population involvement. Changing policies on pharmaceutical prices (e.g. reference prices) is also likely to change the cost structure.

In the context of South Africa, investments to strengthen PHC are essential, but other changes are needed as well. Given South Africa’s history and, particularly, the remarkable political change that occurred in 1994, it is time to move away from the idea of a country with two health systems that are not related to each other. Public policy must recognize and address the reality that what happens in the private sector has implications for the entire system. It will be very difficult to achieve the equity objectives of the reform without managing the cost spiral in the private sector. For example, increasing prices and expenditures in the private sector impact the system as a whole. For example, the health workforce is increasingly diverted from public to private sector, thus limiting access to services in public facilities and raising costs if the public sector must raise salaries to compensate.

The NHI is intended as a national policy reform, and the analyses that support design and implementation – including costing studies – must incorporate these interactions and spillover effects.

Therefore, in this context, it is also essential to address the levels and methods used by private medical schemes to pay private providers –as this has very important implications for the cost of various options for NHI implementation.

It is inconsistent with reforms moving towards UHC to assume as fixed the current provider payment systems and rates that medical schemes pay. Costing under the assumption of current prices solidifies existing private scheme premiums and payments. Doing so will accelerate cost escalation and encourage providers to mistakenly assume that they should be paid whatever they wish to charge. This is dangerous because it will not encourage the necessary efficiency gains and cost containment that is essential for sustaining progress towards UHC.

Diverse international experience exists demonstrating the negative consequences of fee-for-service payments – from the USA to China. In China, for example, a massive increase in public spending to enroll nearly the entire population in health insurance has shifted the proportions of public and private sources – but had virtually no impact on financial protection. Because of the fee-for-service system, providers simply generated more services and more reimbursements – while the levels of patient out-of-pocket payments (mostly as co-payments) did not change.

Where an objective of the reform is to change the cost structure, it can be misleading or even hamper reform progress to rely on a historical costing of services or benefit packages based on the existing cost structure and service delivery patterns.

It is not so easy to develop reliable estimates of the cost of a BP under a new cost structure because it does not exist yet. Thus, the cost data from the existing system are not helpful and relevant and new costs are difficult to predict.



The myth of “true cost”

Cost is a function that describes the relationships between inputs and outputs. While policy makers are frequently requested to estimate the “true cost” of services or a reform, it is worth noting that there is no such concept in economics. What may be observed in an estimate of unit cost is one point along a function. That point also embodies how efficiently services are being produced, existing prices, and the level of capacity utilization. Providers often push (*“you’re not paying us the real costs of the services”*), but they themselves often don’t know their own cost function and may simply seek to justify higher payments. Financiers can be trapped if they promote this concept, as it leads to higher costs for the system overall.

3. Implementation Sequencing

There is some evidence that starting a reform process by costing the benefits package (BP) can have two negative effects: paralysis and distraction.

The first potential negative effect is paralysis. In Tajikistan, for example, discussions have been ongoing for years to define a theoretical BP that is outside of the current reality of the health delivery system and provider payment system. The result is a circular and unending discussion about how to cost it.

The second potential negative effect is to divert attention from the policies that matter. By spending time and resources on BP specifications and revenue sources, inadequate attention is paid to key policy issues – and in particular, provider payment systems. In Ghana, for example, extensive discussions debated the BP with very little focus on how to move away from fee-for-service – which was driving deficits in the National Health Insurance Scheme.

Starting with the BP and a big cost study aimed to identify the needed resources is essentially a one-off accounting approach to a complex economic problem. Instead, it is important to think of an ongoing process to align revenues and expenditures over time.

It is preferred to first develop the engine of output-based provider payment systems by better matching provider payment to the BP. To support the development of these systems, costing is needed, but it is specifically cost accounting for the provider payment mechanisms rather than overall UHC costing.ⁱ

There is a risk of overdesign of the BP by trying to narrowly define all services to be covered by the system. This is a particular concern at PHC level because most patients present with symptoms rather than well-defined conditions. At the same time, investment and training aims to gradually expand the scope of services to be made available at PHC level. A better approach is to begin by paying PHC providers a capitated rate and increasing investments into the infrastructure of PHC facilities. This enables funding of the platform and the level of care, while giving space for the scope of service to develop over time. This is much more practical than a long and detailed costing of services at PHC level.

Implementation of new purchasing mechanisms and a new BP inevitably requires harmonization of the health financing reforms with public finance management (PFM) rules and practices. This is especially true where the main funding source will be general government funds. This is essential because most PFM systems are designed to fund programs, buildings, and inputs – rather than quality services. A focus on purchasing requires reforming mechanisms for allocating budgets from Treasury to the NHI Fund –including the means to hold the Fund accountable for purchasing the health services on behalf of the population. Such linkages are not routinely accommodated in PFM – but can be.ⁱⁱ

Therefore, during discussions between Health and Treasury about funding requests, it is critical to raise the issue of shifting to output- and/or population-based provider payment systems within an overall budget cap.

Costing will be much more productive if there is first a shift to such payment mechanisms – because then the costing can support the refinement of these payment systems. Conversely, it is very hard to cost under input-based payment mechanisms (as in the public sector currently) because of the need to transform line budgets into reasonable cost accounting categories linked to health services. While the “easy answer” is that the current cost is equal to the budget being paid now, this doesn’t really help in thinking about where you want to go in the future.

A related point is the ability to match payments to the BP. If a BP is first defined, it will be very difficult to just create a budget along the existing line items that will fund this – because the existing payment system provides no link between payment and services. This will be a source of dissatisfaction for the population, and will undermine clear and transparent relations between



health and treasury – again because there would be no explicit link between budgets and promised services.

Conversely, if there is shift to output/population-based payment and PFM adjustments are made to link budgets to the payment systems, the question will arise as to the composition of the BP. But it is important to see benefit design as one instrument of financing policy that will need to be continually refined over time. In turn, this means designing into the provider payment system the generation of data, including facility-specific expenditure data that will enable a process of ongoing improvement to adjust payment rates to support efficient production of services. Thus, the costing work can be useful to inform the needed refinements in the provider payment mechanisms. Thinking through the sequencing of these steps is key.

4. What to cost?

As noted above, it is important to have clarity on what to cost, and for what purpose.ⁱⁱⁱ Efforts to do cost the entire BP (as compared to marginal changes to existing BPs) are often long, confusing, inaccurate, and disingenuous processes. By contrast, costing of specific steps can be very valuable, such as cost accounting to set provider payment rates or costing of specific investments to produce reform (e.g. investment into PHC facilities or actually setting up the NHI Fund), change cost structure, improve service delivery, etc.

5. Country Examples

Kyrgyzstan: Costing was part of the agenda but did not drive it. Costing was part of the process of developing and implementing the Kyrgyz “Single Payer” reform. However, the sequencing of reforms was critical and enabled costing to be used to address specific policy questions.

The first step focused on purchasing, with an intent to shift payment methods towards output-based (case-based hospital payment) and population-based (capitation for PHC) methods. This also required centralizing the pooling of budget funds. Cost accounting was required for setting the provider payment rates, costing investments in PHC and other sources of potential efficiency gains. Shifting to output-based provider payment systems was central to enable better matching of payments to covered services. In turn, this allowed the collection of clinical, statistical and cost data required to carry out a better costing of the BP over time.

Another key activity was that the BP was largely related to levels of service for (PHC, hospital, etc.) – rather than a positive list of thousands of services or procedures. Over time and using ever improving cost data, the BP was “costed” using a method called “minimum standards.” In essence, this method equalized investments in the BP by equalizing resource allocation, i.e., providing comparable funding between the capital city and geographic areas outside of the capital (incorporating both pooling and purchasing).

This experience underscores the point that it is very hard to cost services/BP when the only available cost information comes from an input-based budget payment system. This experience is similar to the early implementation process in the US for DRGs, where fee-for-service “charge data” were used to approximate cost data. In South Africa, the only such “charge”-based cost data are from the private medical schemes. Using such data could drive very high levels of expenditure. Alternatively, in Kyrgyzstan, data were generated through pilot implementation of reforms in one region that included the introduction of hospital cost accounting systems. Over time, this provided the basic information needed to develop relative cost weights and inform the payment systems.

Many countries develop detailed health sector plans with estimates of resource requirements. However, these cost estimates are often far removed from realistic spending scenarios and generate projected gaps that cannot feasibly be closed over the short to medium term (Box 1).^{iv}

Box 1. EXAMPLES OF COSTING EXERCISES FOR NATIONAL HEALTH SECTOR PLANS

Country	Costing exercise	Estimated resource gap
Ministry of Health of Ghana	Health Sector Medium-Term Development Plan 2010–13	US\$34/per person 113% increase in government health budget
Ministry of Health of India	India Draft National Health Policy 2015	US\$6.6 billion/year 40% increase in government health budget
Ministry of Health of Zambia	National Health Strategic Plan 2011–15	US\$1.2 billion over 5 years 35% increase in government health budget

Frequently, such exercises are based on bottom-up costing of health programs and benefits packages that face important methodological challenges. It is not possible to develop detailed costing for each particular

service. Aggregating cost estimates for individual services typically leads to heavily inflated total cost estimates that almost always exceed even the upper bound of available resources.^v Even when cost estimates lead to reasonable aggregate estimates of resource requirements, it may be difficult to match funding flows with service priorities. In addition, as noted before, bottom up costing based on current cost structures may include inefficiencies including inappropriate technologies or facilities, or reflect chronic underfunding of the sector.

Furthermore, bottom-up costing studies would not generally incorporate the expected provider responses to new purchasing strategies. If the purchaser uses average costs to inform payment rates, these rates will reflect the current clinical practices in the health system – and fail to reward efficient behavior of individual providers. Providers who are able to deliver services at below-average costs may be able to benefit from being more efficient. In addition, sometimes the purchaser may want to set payment rates above the cost of delivering the service. For example, if increasing primary care and prevention services are policy objectives and lead to lower health care costs over the long term, setting payment rates above costs for those services encourage providers to offer them more often.

In summary, although estimates of resources are important to support health financing policy dialogue and priority-setting in the budget, detailed bottom-up costing exercises of health programs, benefit packages, and care pathways have generally not been useful for informing practical decisions about the steps to be taken in health reform processes.^{vi}

6. Conclusions

The cost of delivering services is not a single point to be calculated—rather, it is a function of decisions made by providers, which may include inefficiencies as well as the level of realized demand (service use).

Despite how often the terms are used, there is no such thing as “real cost” or “true cost.” The cost of delivering health services does not exist in a vacuum and is affected by ongoing, real-world factors and decisions – of which some promote efficiency and others do not.

Given that observed costs embody inefficiencies in the existing health system, it is potentially dangerous and misleading to use current estimated unit costs as a basis for projecting the future.

This is because we don’t know where we are on the cost function. In addition, we don’t want to lock today’s inefficiencies into our future estimates. **Indeed, changing the underlying cost structure of service delivery is a legitimate objective of many health reforms –and certainly should be in South Africa.**

Care is thus warranted in the use of cost estimates in the NHI development process. Costing studies can be very useful if they reveal information on the underlying cost structure of service delivery and enable the modeling of different scenarios using different assumptions about prices, the impact of incentives, changes in service delivery configuration, and levels of service use. They may also be useful for raising challenging policy choices, such as whether the costs of the administrative machinery of a new NHI will be offset by re-design of administrative processes in other parts of the health system.

But an exercise that leads to a single figure and treats that as a reality is not helpful. Even worse, an entire reform process can become hostage to long, detailed, and expensive costing studies that slow the process, and divert attention from critical policy decision such as payment reform.

Finally, it is important to think of an ongoing process to align revenues and expenditures over time rather than a one-off accounting exercise.

It is preferred to first develop the engine of output-based provider payment systems by better matching provider payment to the BP. To support the development of these systems, costing is needed, but it is specifically cost accounting for the provider payment mechanisms rather than overall BP or “NHI costing.” It is also critical to engage with Treasury on the importance of shifting to output- and/or population-based provider payment systems within an overall budget cap.

Ultimately, “the cost of NHI” depends critically on how it is designed and implemented.



REFERENCES

ⁱ For cost accounting for provider payment guidance, guidance can be found here: Özaltın, A and C Cashin, eds. (2014). *Costing of Health Services for Provider Payment*. Joint Learning Network for Universal Health Coverage. Washington, DC: Results for Development Institute.

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ⁱⁱ For examples of how these issues have affected the health sector and health policy responses, see Chakraborty, S, S O'Dougherty, P Panopoulou, MM Cvikl, C Cashin (2010). "Aligning public expenditure and financial management with health financing reforms." In Kutzin, J, C Cashin, M Jakab, eds. (2010). *Implementing Health Financing Reform: Lessons from Countries in Transition*. Copenhagen, Denmark: World Health Organization, on behalf of the European Observatory on Health Systems and Policies. <http://www.euro.who.int/en/health-topics/Health-systems/health-systems-financing/publications2/2010/implementing-health-financing-reform-lessons-from-countries-in-transition>

ⁱⁱⁱ See JLN costing manual and experience from Ghana.

^{iv} Cashin, C (2015 forthcoming). "The macroeconomic and fiscal context for health financing policy: informing the dialogue between Ministries of Health and Ministries of Finance in support of Universal Health Coverage." Guidance Note. Washington, DC: the World Bank.

^v Özaltın, A and C Cashin, eds. (2014).

^{vi} Kutzin, J, M Jakab, C Cashin (2010). "Lessons from health financing reform in central and eastern Europe and the former Soviet Union." *Health Economics, Policy and Law* 5(2):135-147. <http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=7455040&fileId=S1744133110000010>

