Strategic Purchasing Policy Brief Series

Brief 6: Provider payment mechanisms to ensure equity, quality and affordability

About this series

National Health Insurance (NHI) refers to a wide-ranging set of reforms of the South African healthcare system, including the establishment of the NHI Fund as a new entity tasked with the *strategic purchasing* of healthcare.

The broad aim of the NHI reforms is to achieve universal health coverage (UHC) in South Africa. UHC offers "all individuals and communities the health services they need without suffering financial hardship. It includes the full spectrum of essential, quality health services, from health promotion to prevention, treatment, rehabilitation, and palliative care. UHC emphasizes not only what services are covered, but also how they are funded, managed, and delivered" (World Health Organization 2019).

Much of the discussion in South Africa on how we achieve these aims has been divisive and polarised. For many, it is difficult to engage in the debates meaningfully without understanding the jargon and myriad of complex concepts. In support of meaningful discourse, we offer this series of briefs to deepen public awareness and enrich discussions on one particular aspect of the proposed reforms: the notion of strategic purchasing. What is strategic purchasing? Who will do the purchasing? How do we hold the purchaser(s) accountable?

The providers of healthcare services, both public and private, are important stakeholders in a healthcare system. The ways in which the proposed reforms are likely to impact on providers is an often-neglected perspective, one which we hope to consider here.

Seven briefs explore what a purchaser-provider split in a healthcare system is, what strategic purchasing is, the nuances of matching the need for care with the supply of services, how to ensure quality and access and how to balance all this with affordability.

At the time of writing these briefs, NHI as a concept was informed by the framework as set out in the draft NHI Bill (2019) which was preceded by a previous draft version of the Bill (2018), two White Papers (2015 and 2017) and a Green (Policy) Paper (2011).

This work was funded by the Hospital Association of South Africa, although the views presented here are the authors' own.

In this brief…

We discuss alternative ways to reimburse healthcare providers for services rendered. This is timely, given the introduction of a single purchaser in the form of the NHI Fund, which is able to explore new contracting mechanisms to secure the best outcomes. There is an opportunity to rethink how we pay providers and what incentives might ensure the highest level of quality, efficiency and affordability.

Why it matters

The way providers are paid creates financial incentives relative to which providers decide how much (or how little) care to provide to clients and how best to organise themselves to provide services. As is explored in the brief, certain payment approaches may incentivise over-servicing that is likely to lead to higher costs than necessary for the NHI Fund. Other approaches may incentivise under-servicing that could contribute to poor health outcomes, unless compensatory monitoring mechanisms are built into the system. There are also payment approaches that can potentially reward good performance of providers. The NHI Bill proposes moving away from fee-for-service to capitation for primary healthcare and fixed case-based fees (based on diagnosis-related groups) for hospital-based care. While the Bill does not at this stage mention the purchasing of hospital services from the private sector, this may very well happen in the future. It will be important for the NHI Fund to get the design and implementation of payment approaches, for different providers and across sectors, right in order to facilitate the optimal level of servicing and performance.

The South African provider-payment environment

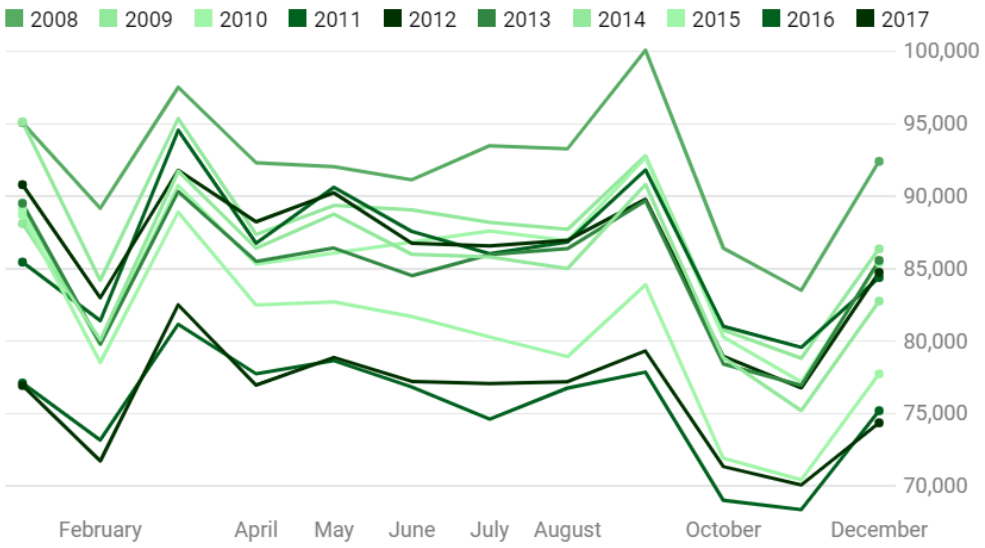
Provider payment refers to the mechanism through which a funder or purchaser contracts healthcare providers for rendering services. There are a multitude of ways this can be done, each with its own set of pros and cons. Below we detail the current provider payment environment in South Africa's public and private health sectors. In the next section, we detail the most common alternative payment mechanisms, which could be used under NHI, and addresses some of the pragmatic considerations for doing so.

Public sector

'Line item budgeting' is the current status quo in the South African public health sector. This is when budgets are developed at the beginning of the financial year and there is a set allocation for a specific provider, programme or level of care. The budget is mostly fixed, however there can be some shifts in the budget during the year, and for specific spending areas (for example on medicines or pathology), with approval from the accounting officer. A budgeting approach protects the fiscus from overspending, but exposes clients to the risk of resources diminishing over the course of the year.

In the public sector, human resources (HR) are hired based on an organogram, and posts are funded each year based on the existing 'warm-bodies' and any planned new hires. HR makes up over 60% of total health expenditure in the public sector. The majority of the human resources for health (HRH) are salaried, meaning that they are paid irrespective of volumes or quality. Under this type of provider payment, there is limited room for incentives to reward quality, efficiency or effectiveness of care and the system relies on the provider to self-motivate and self-manage (Econex 2010). There are of course oversight mechanisms that should help to control for this. The positive of a salaried approach is that the HR costs are known and predictable. However, a salaried approach doesn't allow for changes in HRH mix and numbers in busier months (like the known spike in births in some months- see figure below), creating over-burdened staff, which can result in adverse events for clients. The current system is also geographically rigid, with it not being possible to move staff easily between facilities or geographies.

Figure 1: Rate of births by month (Statistics South Africa 2017)



In the public sector, funds are pre-allocated to budget programmes based on historical trends and utilisation, rather than 'input-based' costings. The consequence is that the funding does not follow patients, or need, resulting in a system that is often not responsive and that is not oriented towards improvement.

Private sector

Fee-for-service (FFS) is the standard reimbursement mechanism in South Africa's private sector. It entails determining tariffs for each individual item involved in the provision of care, including the different providers involved. FFS presents minimal risk for the provider, as the amount paid is linked to actual utilisation of services. However, FFS poses a serious risk to the purchaser of healthcare, as there is no overall ceiling on costs. FFS creates the incentive for providers to over-service, given that they are paid per interaction (Econex 2010). FFS

is not an affordable option for NHI unless the administrative capacity was greatly improved to be able to identify over-servicing and gatekeep unnecessary care. This approach ultimately leads to the need for demand-throttling interventions, micro-management of providers and an antagonistic relationship between purchaser and provider.

There are examples of alternative reimbursement mechanisms used in the private sector. There are some examples of capitation fees payable to general practitioners (where the practitioner is paid an amount per person in their care per month, regardless of whether they treat that patient in that month or not). There are also per diem and fixed fees in the hospital sector – a per diem fee is a set fee paid per day that the patient is in hospital, and a fixed fee is a total pre-set amount paid for a particular type of admission (e.g. a tonsillectomy) regardless of how long the patient stays in hospital. In recent years there have been a few examples of value-based contracts, where healthcare providers are rewarded for high quality, efficient care usually through global fees paid to a multi-disciplinary team of providers. There are a wide range of reasons for the slow move to alternative reimbursement, most of which continue to be risks under NHI: insufficiently motivated purchasers, an unsupportive regulatory environment and a trust deficit between purchasers and providers.

Provider payment under NHI

Price-setting across public and private

A purchaser-provider split enables the NHI Fund to buy services from both public and private providers[1]. There is the need to set fair prices, regardless of the reimbursement mechanism, across the two sectors. This is made complicated by structural differences, differences in input costs and differences in the quality of care between the two sectors. For example, there are differences in the cost of capital, taxes, human resources and the existence of profit margins (see Box 1 on this). Public hospitals, for example, are able to employ doctors whilst private

There is the need to set fair prices, regardless of the reimbursement mechanism, across the two sectors.

[1] The technical term is pluralistic purchasing.

sector hospitals are not. There are also currently differences in medicine prices between the two sectors, although presumably this will no longer be the case under NHI.

Pricing across the sectors does not necessarily have to be the same, given the differences in starting points, however both sectors should be fairly reimbursed for services rendered and this will need to be a process of deep engagement on price-setting. Furthermore, the accreditation process (as described in brief 5) will ensure that historically-public-sector providers are incentivised to improve on the level of detail collected by making it a condition for contracting with the Fund. Common data definitions for health events such as outpatient visits and hospitalisation will be very important in arriving at a fair and reliable pricing approach across both sectors.

Box 1: Differential price factors between public and private providers

Average cost differences between public and private hospitals in South Africa have been explored in a previous study (Ramjee, 2013). The following factors were found to be major differential factors driving cost differences:

- **Monopsony power or state discounts**: Because of the overall health budget and the size of the population it serves, the South African National Department of Health has immense buying power allowing it to obtain discounts private providers can't always achieve.
- **Funding for capital investments**: While capital investments for public hospitals can be directly funded from government budgets, private hospitals have to use debt or equity to fund capital expenditure. This imposes costs that are not as evident in the public sector.
- **Taxes such as VAT**: Total expenditure on private hospitals are reported with a VAT amount included (not the case for public hospitals).

Once at least capital cost differences and state discounts had been taken into account, cost differences between public and private providers narrows.

In England where the NHS buys health services from public and private health providers, the most problematic differential factor has been accounting for differences in capital funding between the two sectors (Mason et al. 2009). Three approaches are available for dealing with these cost differences between public and private providers: explicit adjustments in the tariffs (whether capitation or DRGs are used) paid to public vs. private providers, non-activity-related payments (e.g. a budget for capital expenditure), and regulatory policies taxation (Mason et al., 2009).

The system should seek flexibility and patience around payment experimentation and learning.

There are currently no "prices" per se in the public sector[2]. It will be necessary to accurately determine and allocate input costs in order to enable price setting under NHI. In the private sector there is a difference between cost and price, where prices are determined on an input-basis, taking into account cost and profit margins. Private-sector prices are not currently collectively agreed upon or regulated, resulting in variations in prices between individual providers.

Rigidity in the NHI Bill

There are a wide range of ways in which providers can be paid, and payment systems tend to shift and change over time as lessons are learnt and health systems evolve. It is concerning that the NHI Bill specifies the mechanisms by which providers will be paid (they refer to "capitation" and "diagnosis related groupers", both described below), some years before the full implementation of NHI.

Capitation

Capitation in the context of healthcare provider reimbursement can be defined as a set amount paid in advance to a provider (or team of providers) for the provision of healthcare services for a client (i.e. per capita) for a defined set of services, for a defined period of time (usually per annum) (Rice and Smith 2001). The payment is made regardless of whether the client seeks care or not. The calculated amount to be paid per capita is determined based on expected utilisation of services and an assumed level of efficiency in delivering services.

The NHI Bill names particular reimbursement mechanisms: this rigidity limits our ability to introduce other payment mechanisms which may emerge globally as well as the possibility of payment innovation.

At present, private primary care services are largely GP-led, with most doctors operating in solo practices. This is an inefficient and expensive way of delivering care. The public primary health care service, by contrast, is nurse-led. Capitation rates will almost certainly assume a more efficient organisation of care, with teams consisting of GPs, nurses, community-health workers and other professionals. This re-organisation of care will need to be carefully supported – financially, technically and by providing contracting certainty - particularly given that there are likely to be capital costs associated with re-organising. There is also likely to be resistance to new forms of contracting. Hence the process will require a high level of trust and engagement.

[2] There is a price-list that is used to charge user fees for public services, for those above the means test. However, these prices have not been comprehensively reviewed and it is not clear that they accurately reflect input costs.

It is important to realise that new reimbursement mechanisms cannot be implemented without a significant process of change management.

The public budgeting system will also need to be over-hauled to be able to respond to and manage a new set of financial flows – this is not a small task particularly given that budgeting processes are not healthcare specific. **Consistency between the sectors will be tricky to achieve given the differences in starting points.**

Capitation contracts transfer the risk of higher utilisation to the provider of care – this acts as the incentive to ensure that the population remains healthy. However, it is more difficult for a provider to judge whether a capitation rate is fair or not, particularly with a new population, where the usage of services is unknown.

Capitation-based payment systems are attractive from an equity perspective because they ensure that funds follow patients, and they encourage primary care providers to think about the long-term health of the population they serve. The more patients need to see providers, the less profitable the capitation fee is. In the short-term, this can lead to underservicing or excess referral on to more specialised levels of care, but there are mechanisms to compensate for both of these.

Such safeguards can include data that monitors utilisation at individual providers and regular measurement of the health of the catchment population (measured through patient-reporting outcome measures, adherence to medication, immunisation rates and other such examples), which would help to ensure clients are appropriately accessing the service to the betterment of their health status. This would then move the capitation into the value-based care payment realm, which is discussed at the end of this brief.

Capitation contracts have evolved and changed, and there are many different forms of these contracts found around the world. Key features include whether the capitation rate:

- is risk adjusted: those serving sicker populations or populations with a high-level of need such as pregnant women and infants earn higher rates;
- penalises providers for their patients using excess specialised or hospital services (on the presumption that this reflects poor primary care) – the extent to which primary care providers are expected to carry this risk has reduced as capitation models have evolved;
- allows for performance-payments where providers are rewarded for providing good quality care.

Diagnosis-related groupers (DRGs)

Case-based payments for hospital care are fixed prospectively – i.e. they don't depend on how long an individual client actually ends up spends in hospital or the precise mix of services delivered, or even whether the client was in a general ward or intensive-care ward – but rather on the characteristics of the client and their admission at the outset of care. These payments are typically inclusive of all costs: professional fees, hospital

fees, medicines and consumables – encouraging facilities and health professionals to take joint responsibility for patients.

Diagnostic related groupers (DRGs) are a statistical tool used to group admissions into categories, where a category is expected to use a similar amount of resources. The term DRG is used to refer to each of these categories and to a reimbursement mechanism where a case-based payment is made per category. There are hundreds of categories and these are determined depending on the characteristics of the client (such as age, sex and disease profile), and the care that the client needs (based on their diagnosis, and to some extent on the medical procedures performed) (Mathauer and Wittenbecher 2013).

DRG-based reimbursement mechanisms transfer risk from the purchaser to the provider, incentivising efficient use of resources and cost-effective care. Case rates can lend themselves to using insufficient resources per admission[3]. Therefore, data is crucial to ensuring that the reimbursement mechanism is not impacting adversely on quality. One way to ensure this is to regularly check the DRG payments against actual resource-use and adjust upwards if needs be. This makes clear the need for detailed resource-use data even as you shift away from FFS. The other option, as with capitation, is to measure healthcare outcomes and reward hospitals for good and improving quality of care – this shifts the locus of control and accountability back to the providers of care.

The price for each category could be established using existing price data for the same event, with adjustments made to ensure fairness across the public and private sectors and to allow for changes in efficiency and/or quality. Where price data is not available (as is the case in our public sector) or is not trusted, substantial workload data and unit cost data is required (Mathauer and Wittenbecher 2013). These are called time-and-motion studies and require tracking actual patients to determine the resources used, incorporating all staffing, materials and medicines and adjusting the cost based on the risk of the expected population. The absence of accurate diagnosis and procedure data per patient in our public sector will require a substantial investment in systems and people capacity to do the capturing. The data required to develop and sustain DRGs should allow public hospitals to plan better for their expected client pool, assuming high quality management reporting systems are overlaid on the data. This is a worthwhile investment regardless of the timeline to fully implement DRGs.

The process of ensuring consistent clinical coding between facilities will take many years to develop due to both the complexity of coding and the need for a feedback process that involves the purchaser using the data that emerges to improve the quality of coding. An example of the complexity of clinical coding can be seen in the case of a diabetic patient admitted with severe stomach pain who is only diagnosed part way through their

[3] Under FFS, a hospital will be financially rewarded if a patient is moved to a higher-intensity ward (e.g. ICU). Under a case-rate, such a move would have negative financial consequences.

admission, and who ends up with a hospital-acquired infection. This admission will need to have a string of diagnosis codes to reflect the patient co-morbidities, the change in their diagnosis across the course of the admission, and the adverse event. A shadow period will be required before funds are allocated to facilities on the basis of DRGs.

Shifting to DRGs would be easier for the private sector than for the public sector, given the huge amount of data that is already collected. The large hospital groups have extensive experience with using DRGs as a statistical tool for the purposes of management information. However, the current impediments to implementation of DRG-based reimbursement relate to determining an agreed-upon DRG fee across all hospitals, schemes and health professionals together with certain ethical rules of the HPCSA. The final report of the Competition Commission's Health Market Inquiry makes it clear that, in particular, the rules on the sharing of fees (ethical rule 7), business models (ethical rule 8) and sub-contracting (ethical rule 9) have made the implementation of DRGs and payment for teams of healthcare workers very difficult. These rules are viewed as undermining competition and innovation in the private health sector (Competition Commission South Africa, 2019).

In South Africa's fractured health system, there are also big differences in costs and inputs across and within sectors, meaning that it will require significant engagement to get to an affordable and acceptable rate, per DRG. One of the ways that may make this easier is to get stakeholders to agree on the **philosophy of the costing**- so that in-depth engagement for each different DRG is not required.

The biggest philosophical question is how to apportion indirect costs and shared resources. An indirect cost could be the hospital management team and an example of a shared cost would be the running of an autoclave machine for cleaning surgical equipment. Best practice recommends that DRG categories that use similar providers and materials could be grouped for the indirect costing determination, to ensure that the resources are shared proportionally amongst similar DRGs, rather than equally amongst all DRGs (Mathauer and Wittenbecher 2013). This would prevent artificially high or low DRG payments.

Of course, it is not possible to reimburse hospitals exclusively on DRGs, and therefore DRGs need to co-exist within the broader reimbursement framework, drawing on global budgets or other payments to ensure that research, training, infrastructure and systems within the hospital are adequately funded too. In order to create a level playing field in terms of pricing and costs between providers, additional payments for non-activity related payments, e.g. for capital expenses, may have to be made to private providers every now and then.

Two other options to consider

DRGs and capitation are the reimbursement mechanisms highlighted in the NHI Bill. Below, we highlight some other provider payment options that the sector may consider as it firms up the implementation of the policy: global budgets and value-based contracting (VBC). Global budgets are a well-established reimbursement mechanism, while VBC is newer and is generally only possible in more mature healthcare environments, given

the reliance on quality measurement data. However, we detail it below given that it is quickly becoming recognised as a highly effective provider payment mechanism.

Global budgets

Global budgets are paid in advance of any service delivery and the provider is given control on how to spend the allocation, provided they meet the stipulated criteria they are being contracted for (Kazungu et al. 2018). Global budgets can be very effective but require regular monitoring to ensure quality and cost-effectiveness of spend (Econex 2010; Altman and Cohen 1993). They are similar to line item budgets in that they can lend themselves to under-servicing as the funds not spent are mostly not returned and any over-spending is not reimbursed. Canada and the UK are examples of countries with universal health coverage (UHC) which make use of global budgets for their historically-public-sector hospitals (Katuu 2018). Global budgets can, therefore, help to bring down the cost of healthcare by incentivising healthcare teams and care at the lowest possible level, where providers are in control of how they are configured, and what they earn (i.e. not salaried) (Econex 2010; Altman and Cohen 1993). The disadvantage, from the provider's perspective, is that there is considerable risk of higher than expected severity of cases and utilisation of services. Effective implementation of a global budget requires substantial management information. It works more effectively in systems where the use of services from one year to the next is fairly stable primarily because the level of the budgets can be set in line with patient need. In an under-resourced environment or environment where the use of services is not stable, global budgets have similar disadvantages to line-item budgets in that they result in front-line health workers having to make prioritisation decisions and can result in inequities between facilities if funds are not structured to follow patients. Global budgets pose limited risk to the fiscus, but potentially at the cost of equitable access to quality care.

Value-based contracting

The philosophical backbone of value-based approaches is that "the purpose of the health care system is not to minimize costs but to deliver value to patients, that is, better health per dollar spent" (Porter and Teisberg, 2007). The concept of value-based contracting is deceptively simple: it is a way for funders to purchase care from healthcare providers that incentivises and supports providers to deliver "good" care, where good relates to health outcomes that matter to patients (NEJM Catalyst 2017).

Full implementation of VBC requires:

- healthcare providers to organise into integrated practice units (effectively, multi-disciplinary teams);
- measurement of quality outcomes and costs for every patient;
- bundled payments across care cycles;
- integrated care delivery across separate facilities;

- an expansion of services across geography; and
- an enabling information technology platform.

(Porter and Lee, 2013).

Part of the complexity of VBC is that different contracts need to be developed for different aspects of care and sub-populations. There are pockets of VBC in systems around the world but it has yet to be rolled out in a comprehensive way across any health system.

Even where full VBC is not implemented, it is possible to introduce value-based concepts into any reimbursement system by allowing for a portion of the fee to be dependent on the quality of care delivered. An alternative reimbursement mechanism that does not include a value-based care element, poses a risk for clients. Because value-based contracting places a focus on keeping clients well, there is an incentive for providers to focus on health promotion and prevention efforts, an often-overlooked element within a stressed health system (NEJM Catalyst 2017).

The realities of changing the provider payment landscape

Changing the provider payment landscape will require changes to regulation, contracting methods, systems, provider technical capacity and data requirements. Philosophical issues of equity (from a client perspective) and fairness (between providers) will also require attention - building fair levels of payment that protect provider, payer and client from risk. NHI and the proposed alternative reimbursement strategies that it intends to implement raises many uncertainties and "what if" scenarios. We set out some of these scenarios in Box 2 below.

Box 2: NHI contracting "what if" scenarios

There are various uncertainties around the implementation of alternative contracting approaches under NHI. It is not clear how this will be dealt with under NHI, but these are uncertainties that the government will have to seek to proactively recognise and address. At least two major uncertainties will have to be dealt with:

What if client volumes increase beyond those contracted for? Given the realities of rural-urban (and vice versa) migration and the fact that people move around, the patient volumes of certain providers may increase beyond those initially contracted for. Smart contracting could be one solution, where capitation agreements would make provision for this uncertainty and allow for the contract to be revised (based on new patient volume data) at certain points in the year. It is possible that clients may choose to switch away from their primary healthcare provider due to the nature of service received, e.g. poor quality, or may move to an alternative provider. We do not know how regularly patients may be able to make these switches but in these cases the money should eventually follow the patient. Smart and flexible contracting would allow this eventuality to be dealt with in a practical manner.

What if private quality exceeds that of the public sector, or vice versa? According to the draft bill, the NHI Fund will only be permitted to contract with accredited providers. These are providers who would have been certified by the OHSC and who would have met the accreditation standards as set out by the Fund. There is a possibility that not all public providers, or not all private providers, will be accredited. While private providers can continue to do business with private clients on an FFS business, this will mean the exclusion of public providers as providers to NHI. It is not clear what will happen if an insufficient number of public providers are accredited and what this will mean for healthcare access. It is assumed that these providers will have to be supported in other ways until they are able to provide services of a sufficient level able to meet the minimum standard.

What if private providers are able to adapt and respond to new reimbursement mechanisms more rapidly that public providers? The rigidities of the public budgeting system, the lack of experience with alternative reimbursement and the capital costs associated with existing infrastructure mean that public providers are likely to be slow to adapt to new forms of reimbursement. Private hospitals, for example, already have experience with clinical coding, with the use of DRGs as a management tool and have contracting capacity. More rapid implementation in the private sector could further the inequities between public and private providers, particularly if reimbursement mechanisms strongly incentivise a focus on patient outcomes.

South Africa would need to do extensive provider and stakeholder engagement, to ensure the capitation and case-based amounts are acceptable, affordable and incentivise quality sufficiently. Ultimately, NHI should seek for price-setting to be evidence-based and driven by a transparent and scientific process that equally balances affordability with quality. In order to achieve evidence-based, fair and transparent pricing, an independent and neutral body or unit to do the costing and update this annually, will be required. In Germany, data collection and the calculation of DRGs are managed by the Institute for Hospital Remuneration Systems (INEK). INEK is an independent company that is jointly owned by the German insurance industry and the German hospitals

association. The funding of the INEK derives from a charge applied to every patient case (HFMA, 2015) – highlighting the costs associated with maintaining such a system.

If the public and private sectors are to deliver health services in the same system and subject to fair pricing, regulatory neutrality will be essential. This can be achieved by taking a functional approach to regulation of providers with regards to seeking the same cost, quality and access objectives (Bacher et al., 2013).

The prices that may be affordable for NHI are likely to be lower than current reimbursement levels in the private sector - although the volume of NHI clients should make up for this to some extent. The need for services to be re-organised should not be under-estimated, and the cost of this will need to be allowed for.

The move to capitation/case-based reimbursement in the public sector will require substantial change management with existing staff. The first step will be to put in place the required data and management information systems. Given the FFS environment in the private sector currently, much of the administrative, information and data requirements is sufficiently detailed to allow for cost and utilisation control (although there is insufficient data for quality measurement). The public sector has already begun work on rolling out computers, internet access and electronic health information systems which would make electronic client records a viable option. However, high-quality clinical coding, accompanied with time-and-motion studies will take many years to be bedded down fully.

If these alternative payment approaches are to work in an NHI regime, and affordable and sustainable access is to be achieved, mechanisms will need to be put in place to ensure that overruns on targets, i.e. volume of cases multiplied by the DRG rate, are actively managed. For entities that have overruns on targets, sanctions or penalties may have to be put in place, e.g. a reduction in the DRG rate in the next round of contracting. Without these penalties, providers may not take the need for accurate and comprehensive data collection and client servicing relative to targets seriously. At the same time, given the potential for under-servicing, when especially capitation is used as the payment approach, clear provider targets in terms of quality and patient outcomes will have to be set and enforced.

Conclusion

The move to NHI requires an overhaul in reimbursement mechanisms for both public and private providers. While neither sectors' provider payment mechanism is yielding optimal results, there is much to be learned between the two and the NHI gives an opportunity to establish a new norm that puts the client at the centre of the healthcare system. We suggest a slow and phased approach - focussing on improving data collection and use in the public sector to begin with, with a relatively long shadow implementation period to build familiarity.

We also suggest testing the process and affordability of contracting private services under NHI, using capitation for private general practitioner services or DRGs for some hospital services. This would also allow the public

sector to already contract out some much-needed services to the private sector, whilst NHI policy and process is still being discussed. By simultaneously improving data and information systems in the public sector and testing the process and contracting in the private sector, the NHI can use the lessons learned to refine the approach once the NHI is fully-fledged.

Before committing to a particular approach to reimbursement, an investment case and risk assessment is required to ensure that the we fully understand the costs and timelines associated with the approach. The considerable work required can begin ahead of full implementation of NHI. Small scale testing of reimbursement mechanisms would be preferable before a full system-wide implementation.

References

Altman, Stuart, and Alan Cohen. 1993. "The Need For A National Global Budget." *Health Affairs* 12 (suppl 1): 194–203. https://doi.org/10.1377/hlthaff.12.suppl_1.194.

Bacher Gary E., Michael E. Chernew, Daniel P. Kessler, and Stephen M. Weiner. 2013. " Regulatory neutrality is essential to establihsing a level playing field for Accountable Care Organizations. *Health Affairs*. 32(8): 1426–1432.

Competition Commision South Africa. 2019. "Health Market Inquiry: Final report and recommendations." http: http://www.compcom.co.za/wp-content/uploads/2014/09/Health-Market-Inquiry-Report.pdf.

Econex. 2010. "Provider Payment Systems Health," no. September: 1–15.

Healthcare Financial Management Assocation (HFMA). 2015. "Costing healthcare in Germany: Report of a meeting between INEK, the HFMA and Monitor.". https: https://www.hfma.org.uk/docs/default-source/default-document-library/costing-healthcare-in-germany.pdf?sfvrsn=0.

Katuu, Shadrack. 2018. "Healthcare Systems: Typologies, Framework Models, and South Africa's Health Sector." *International Journal of Health Governance* 23 (2): 134–48. https://doi.org/10.1108/IJHG-10-2017-0054.

Kazungu, Jacob S., Edwine W. Barasa, Melvin Obadha, and Jane Chuma. 2018. "What Characteristics of Provider Payment Mechanisms Influence Health Care Providers' Behaviour? A Literature Review." *International Journal of Health Planning and Management* 33 (4): e892–905. https://doi.org/10.1002/hpm.2565.

Mason, Anne, Street, Andrew, Miraldo, Marisa, and Luigi Sicialini. 2009. "Should prospective payments be differentiated for public and private healthcare providers?". *Health Economics, Policy and Law*, 4: 383–403.

Mathauer, Inke, and Friedrich Wittenbecher. 2013. "Hospital Payment Systems Based on Diagnosis-Related Groups: Experiences in Low- and Middle-Income Countries." *Bulletin of the World Health Organization* 91: 746-756A. https://doi.org/10.1002/jcp.1030350203.

NEJM Catalyst. 2017. "What Is Value-Based Healthcare?" NEJM Catalyst. 2017. https://catalyst.nejm.org/what-is-value-based-healthcare/.

Ramjee, S. 2013. "Comparing the cost of deliverying hospital services across the public and private sectors".

Research commissioned by the Hospital Assocation of South Africa.

Rice, N, and P C Smith. 2001. “Approaches to Capitation and Risk Adjustment in Health Care Financing: An International Survey.” *The Milbank Quarterly* 79 (1): 81–113. https://doi.org/10.1111/1468-0009.00197.

Statistics South Africa. 2017. “P0305- Recorded Live Births, 2017.” Pretoria. http://www.statssa.gov.za/?page_id=1856&PPN=P0305&SCH=7366.

World Health Organization. 2019. “Universal Health Coverage (UHC).” 2019. https://www.who.int/news-room/fact-sheets/detail/universal-health-coverage-(uhc).

www.percept.co.za