

# A FINANCIAL FEASIBILITY REVIEW OF NHI PROPOSALS FOR SOUTH AFRICA

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**There is little evidence to support the central objective of the reform which seeks to raise up to 5% of Gross Domestic Product (GDP) in additional taxes to achieve a total public spend equivalent to 8% of GDP. No international precedent can be found for such a proposal...**

National Health Insurance (NHI) has been introduced as a reform proposal for the South African health system by the African National Congress (ANC) from 2007. Until now such proposals were not seriously considered as South Africa has pursued the path of developing a public health system capable of guaranteeing universal access to health care. Proposals tabled by the ANC in September of 2010, however, propose an alternative institutional path coupled with ambitious budget bids. This chapter seeks to unpack and evaluate these most recent proposals, concentrating on their financial feasibility. Overall the chapter finds little evidence to support the central objective of the reform which seeks to raise up to 5% of Gross Domestic Product (GDP) in additional taxes to achieve a total public spend equivalent to 8% of GDP. No international precedent can be found for such a proposal, with no other developing countries spending anywhere close to this level on public health. Were such a proposal to be implemented it would require that personal tax rates rise to implausible levels, with a general doubling of tax rates. Aside from the general financial considerations the institutional proposals, involving the implementation of what is termed a "SARS-like" organisation, raise serious financial concerns. Aside from a lack of clarity over why this organisation is necessary and what institutional weaknesses it seeks to address, the ambitious list of proposed functions suggest that it will be considerably more costly than indicated. This chapter largely concludes that the ANC proposals are not implementable as proposed and are unlikely to seriously address existing weaknesses in the health system.

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## Introduction

The purpose of this chapter is to evaluate the financial implications of proposals produced by the African National Congress (ANC) on National Health Insurance (NHI). Although no official policy in this regard has emerged at the time of writing, the ANC proposals provide some idea of the positions held by a number of key stakeholders and interests close to the ruling party. This conveniently provides a useful focus for a feasibility assessment. This chapter, therefore, frames the central financial and related institutional elements of the NHI proposals as stated, including the supporting business case, and subjects them to a critical review.

## What is proposed?

Of four ANC documents made public to date, all of which were produced from 2009,<sup>1-4</sup> very little has altered in their broad substance. However, as the reports are fairly broad, with only the most recent discussion document containing any financial information, some proposals with important financial and related efficiency implications remain unclear. Nevertheless, the most recent report is relied on here as the primary source for the discussion in this chapter.

The following is therefore a summary of the main recommendations:

- An NHI Fund should be established which would collect revenue, pool the revenue and purchase all health services in South Africa.<sup>4</sup>
- The NHI fund should be managed by a Chief Executive Officer (CEO) appointed by and reporting to the Minister of Health (MoH) “similar to the way the SARS [South African Revenue Service] Head reports to the Minister of Finance”.<sup>4</sup>
- The NHI Fund should operate as a separate body from the civil service “as evidenced by international practice and experience”.<sup>4</sup>
- The National Department of Health (NDoH) should remain in a stewardship role and “also remain a major provider of services through its national, provincial and district level structures and facilities”.<sup>4a</sup>
- The entire purchasing function of the existing public health system should be transferred to the NHI Fund.<sup>4b</sup>
- The NHI Fund should directly contract with and reimburse both public and private providers.<sup>4</sup>

a It should be noted, however, that the NDoH is not a provider of services through the provinces and districts. Provinces operate independently of the NDoH as fully developed organs of state in terms of the Constitution.

b It should be noted that the discussion document refers to the NDoH as having a purchasing function. In fact, it does not have this function. Provision only occurs at the provincial and local government tiers of government.

- It is proposed that a district team be configured for the provision of population health services. This will include paramedical personnel operating in support of nursing and clinical staff. It is proposed that there should be one team for every 10 000 people. This would require:
  - 5 000 teams;
  - 5 000 doctors/clinical associates and nurses; and
  - 15 000 to 20 000 community health workers.<sup>4</sup>
- The district teams should be supported by health professionals operating from fixed clinics and private sector group practices providing primary care on a capitation basis.<sup>4</sup>
- It is proposed that the primary care system provide 80% of the services needed by communities, with access to secondary and tertiary services on a referral basis only.<sup>4c</sup>
- Private pharmacies should be contracted to provide increased access to medicines.<sup>4</sup>
- An Office of Standards Compliance (OSC) should be established outside of the NDoH but reporting to the MoH “just like the SARS which reports to the Minister of Finance”.<sup>4</sup>
- The benefits offered should be universally available and include all South African citizens and legal residents.<sup>4</sup>
- The benefits should be provided by accredited public and private providers that are contracted to the NHI Fund.<sup>4</sup>
- Existing private general practitioners should be accredited in the system if they work in multi-disciplinary practices “which include primary health-care nurses and a range of allied health professionals”.<sup>4</sup>
- At least 25% of all facilities should be accredited annually “until all facilities are fully accredited during a five-year phased period”.<sup>4</sup>
- An earmarked tax framework, in conjunction with an increase in general taxes, should be implemented to raise additional funds amounting to approximately 5% of Gross Domestic Product (GDP) and added to the existing 3% of GDP already in the public health budget.<sup>4</sup>
- The system should be initiated in 2012 with an additional 2% of GDP added, by way of the earmarked tax, to the existing 3% of GDP currently allocated to the public health budget. By 2017 the total allocation to the health budget should rise to 7% of GDP, reaching 8% of GDP by 2025.<sup>4</sup>
- The fiscal impact of the increased taxes should be offset by the removal of a current tax subsidy for medical scheme users.<sup>4</sup>
- A progressive earmarked tax is proposed at 1% (presum-

c It is not clear whether this refers to activities or finances.

ably of payroll) for the lowest income earners rising to a maximum of about 8% for high income earners, with no income ceilings applied.<sup>4</sup>

## Unpacking the business case

A business case sets out a formal rationale for any programme of action, including any bid for new funds or loans, based on value-for-money arguments where explicit benefits and costs are weighed up. A business case is central to providing decision-makers and, where major public policy issues are at stake, stakeholders and the general population with a clear idea of the trade-offs involved and why the intervention is necessary. In the case of public policy it should indicate a clear rationale for government intervention and how that intervention is tailored to meet specific social concerns that cannot be addressed either through private markets or existing public programmes. Where proposals have very significant financial and institutional implications, involve significant risks of government failure and have widespread implications for many stakeholders and households, the standard of scrutiny rises.<sup>5</sup>

The central elements of the business case provided by the ANC are as follows:<sup>4</sup>

- It will provide an opportunity for significant economic and social benefits as the population will be healthier and more productive. They suggest that: “international evidence demonstrates that a properly implemented NHI, as demonstrated in countries such as Japan, Taiwan, Chile, Thailand and South Korea, has resulted in economic and social benefits to the country”;
- The population will be protected against private health insurance premium increases through introducing a “highly effective, fair and cost-effective national health insurance system”;
- High-income countries in the European Monetary Union spend 73% of health-care funds through public arrangements;
- “Rich countries, in general, choose to spend their health-care publicly”;
- A free-market for health care is often inequitable and inefficient and suffers from market failure;
- Public spending “acts as a brake on overall spending and prevents the rapid cost escalation that has occurred, for example, in the United States of America”;
- “Each extra year of life expectancy raises a country’s GDP per person around 4% in the long run”;
- “Health investments are important safety nets against poverty traps in times of economic upheaval ... lack of health insurance in India means that over 37 million fall below the poverty line each year due to catastrophic health spending”;
- The public financing of health “frees the poor to use more money to increase their own welfare and create jobs”.
- “In South Africa 57% of health spending flowed via private health insurance contributions (44%) and out-of-pocket spending (13%). If the poor did not have to spend this 13% on out-of-pocket expenditure, they would either save it or spend it on other goods and services. Studies have shown that they would use it on other services including investing in other household assets and other activities that create jobs in South Africa.”
- “Business will have a healthier workforce at a lower cost”;
- “Many middle-income countries have implemented universal national health insurance quickly and innovatively and to wide popular appeal.” Examples provided refer to Taiwan, the Republic of Korea, Mexico, Thailand, Vietnam and Columbia;
- It is argued that there would be good “citizen buy-in” to the NHI on the basis of a survey, the findings of which are stated as:
  - There is a good understanding of the need for pre-payment to ensure financial protection from the costs of health-care with 76% of all respondents agreeing with the statement: “I would agree to pay a small amount each month so that if I get sick, health-care will be free, even if I’m not sick now”.
  - More than two-thirds of respondents (67%) agreed with the statement: “I would join a publicly supported health insurance scheme if my monthly contribution was less than for current medical schemes”. Importantly, an even greater number of medical scheme members (82%) agreed with this statement, strongly suggesting that there is widespread dissatisfaction with the high cost of medical scheme membership.
  - Another important finding of this survey is that, despite reported widespread concern about the quality of care in public sector facilities, 73% of South Africans agreed with the statement: “I would join a publicly supported health insurance scheme if I could use public health services for free”.

On the strength of this business case the following recommendations are made:

- An NHI Fund be established at the level of national government which would:
  - Collect revenue for the purpose of financing health-care benefits;
  - ‘Purchase’ services, with this function entirely trans-

ferred from provincial and local government;

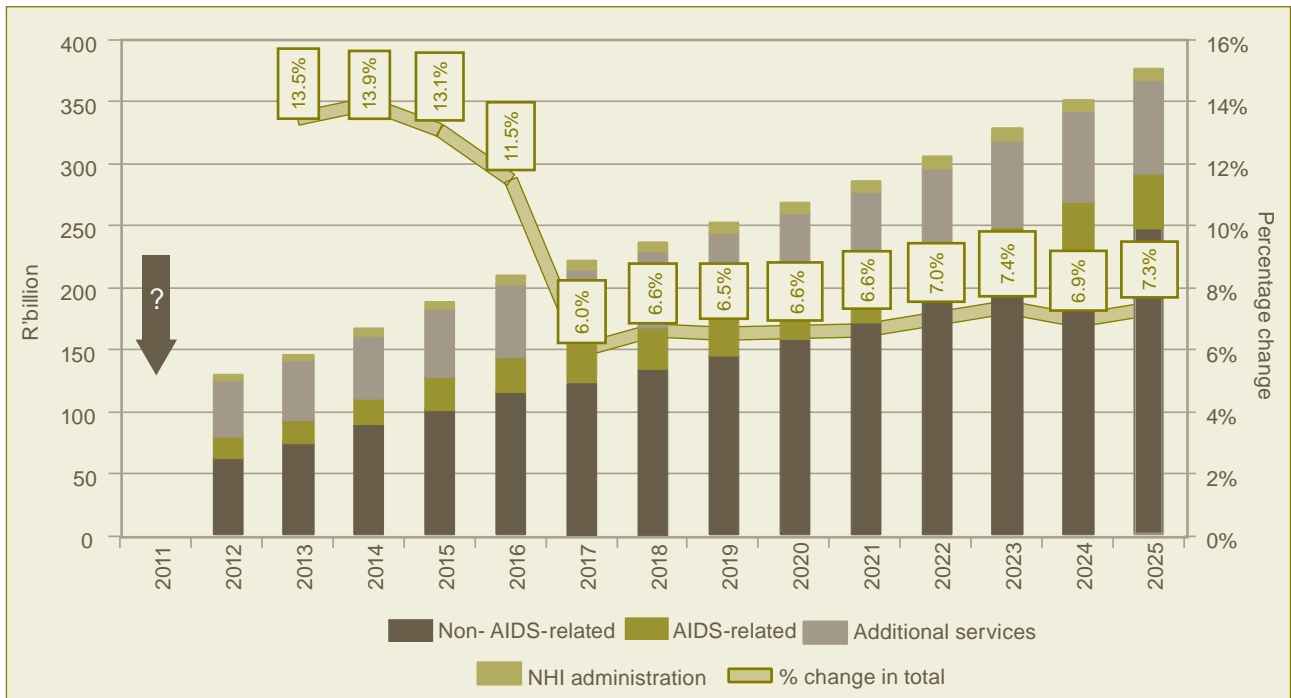
- 'Purchase' services from both the public and private sectors;
- Provincial governments in future only render services on behalf of the NHI Fund on a contractual basis;
- An earmarked tax be implemented to raise funds in addition to the present budget allocation;
- That total funds allocated to the NHI Fund ultimately rise to 8% of GDP, with a start-up allocation equivalent to 5% of GDP in 2012, growing to 7% of GDP by 2017, and thereafter rising to 8% by 2025;
- That a quality assurance authority be established to accredit all services to be "purchased" by the NHI Fund; and
- That a political governance model be implemented for both the NHI Fund and the quality assurance structure that would involve the MoH appointing the CEOs of the organisations.<sup>4</sup>

- Non-AIDS-related services;
- AIDS-related services;
- Additional services; and
- NHI operational costs.

The report, however, does not define the streams, making it difficult to evaluate what lies beneath the numbers or relate them to existing programmes. The proposed budget trajectory, reflected in Figures 1 and 2, indicates that very dramatic increases in service funding is proposed, beginning in the period 2012 to 2017, with increases at roughly 13% per annum in real terms and around 7% per annum in real terms thereafter to 2027. The AIDS-related services, which do not correlate with existing HIV and AIDS budgets and programmes, also show very dramatic increases, rising ultimately to R47 billion, i.e. nearly 50% of current public health expenditure. The non-AIDS-related budget increases are more pronounced than any of the other programmes, with increases of 18% and 19% per annum for the first two years, dropping to 15% per annum in the next two and roughly 9% per annum from 2017 to 2025.

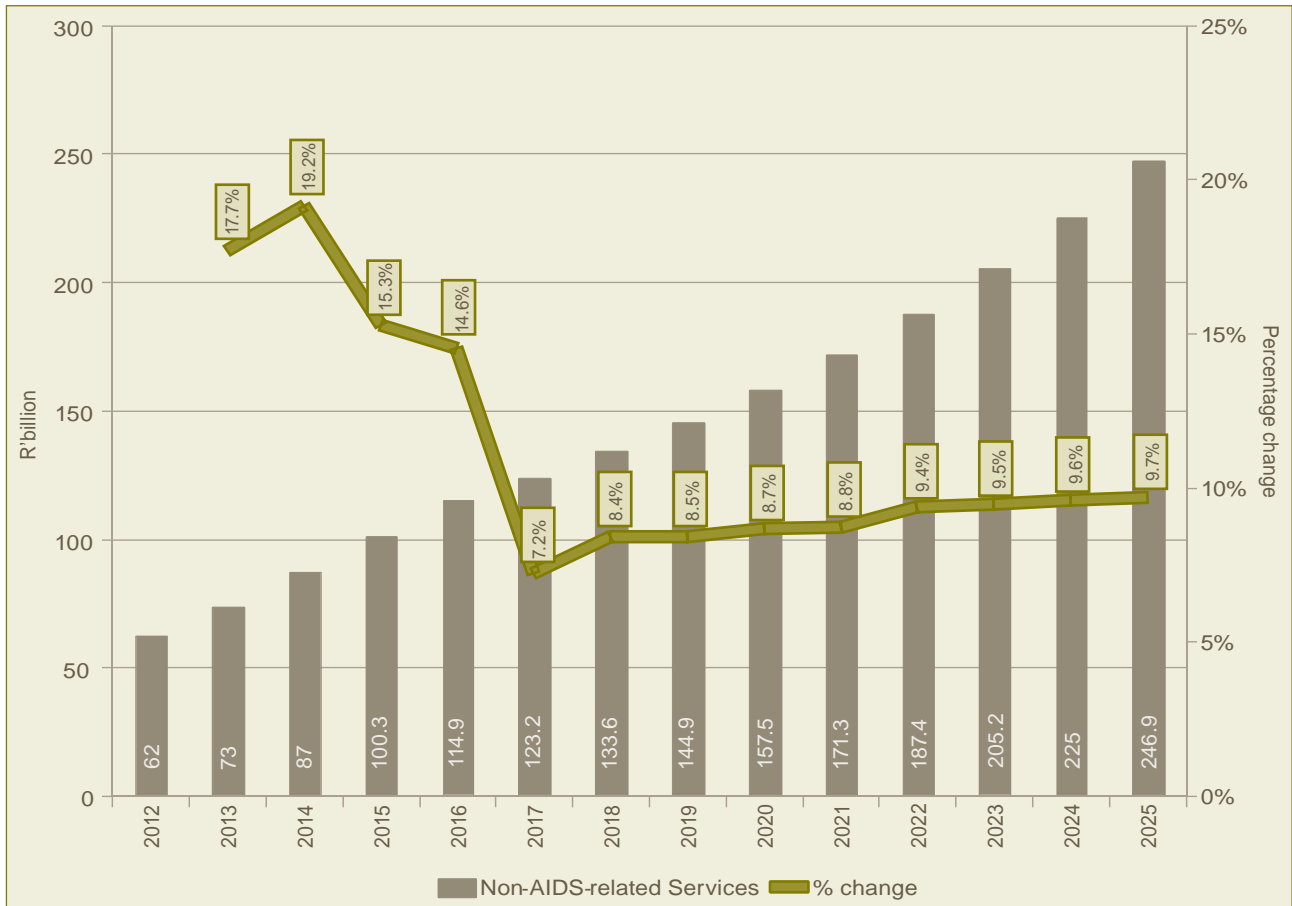
In terms of an overall expenditure plan the ANC report outlines four high-level categories of public health expenditure:<sup>4</sup>

**Figure 1: ANC financial proposal for NHI**



Source: African National Congress, 2010.<sup>4</sup>

Figure 2: Proposed changes in the non-AIDS-related public budget



Source: African National Congress, 2010.<sup>4</sup>

Table 1: ANC financial proposal for NHI (R billion in 2010 prices)

	Non-AIDS-related	AIDS-related	Additional services	NHI administration	Total
2011	?	?	?	?	?
2012	62.0	17.2	44.8	3.7	127.7
2013	73.0	19.7	48	4.2	144.9
2014	87.0	22.0	51.3	4.8	165.1
2015	100.3	26.2	54.8	5.4	186.7
2016	114.9	28.7	58.5	6.0	208.1
2017	123.2	31.0	60.0	6.4	220.6
2018	133.6	33.1	61.6	6.9	235.2
2019	144.9	35.1	63.2	7.3	250.5
2020	157.5	36.9	64.8	7.8	267.0
2021	171.3	38.7	66.4	8.3	284.7
2022	187.4	40.3	68.0	8.9	304.6
2023	205.2	42.8	69.6	9.5	327.1
2024	225.0	43.3	71.3	10.2	349.8
2025	246.9	44.7	73.0	10.9	375.5

Source: African National Congress, 2010.<sup>4</sup>

## Evaluating the business case

### General comment

Given the far-reaching nature of the ANC's proposals for NHI, motivated on public interest grounds, it is important to review the case presented, including whether the solutions reasonably relate to the gaps in the health system and are reasonable and feasible. This section therefore provides a limited critical review of the substance and reasonableness of the ANC's NHI framework. This involves an examination of the objectives, the financial proposal, administration costs, earmarked taxes and citizen buy-in. Each element examined, although not exhaustive, materially relates to the value-for-money of the proposals.

### The objective of the reform

The objective underpinning this proposal, although never clearly laid out, appears to be the achievement of a version of equity that assumes public welfare is maximised where all health-care expenditure is centrally pooled and services purchased at a level equivalent to the existing level of total national health expenditure.

The calculation of total national health expenditure, in this instance, is understood to include existing public sector, medical scheme, social insurance and out-of-pocket expenditure.

The business case, seen together with the recommendations, relies on the rationale that the public health system is underfunded to a degree that is inconsistent with international norms and that the existence of a private system with independent funding is the main institutional weakness driving the systemic under-performance of the health system. Central to this thesis is the fact that only 16% of the population access medical scheme cover and that out-of-pocket expenditure is regarded as excessive at 13% of overall national health expenditure.

The proposals therefore see both medical scheme and out-of-pocket expenditure as social negatives which can only be eliminated through their being subsumed into a single "pre-paid" system which offers free care at point of service. This is assumed to occur by increasing public expenditure levels so dramatically that no-one will feel the need to pay out-of-pocket for any health services or contribute voluntarily to a medical scheme.

The goal of improved health outcomes is, surprisingly, not prioritised in the proposals, despite South Africa's evident poor performance relative to international benchmarks and comparator countries (see Table 2). The 'business case' for

NHI, in contrast to findings elsewhere, does not talk to public sector poor performance as a causal factor for poor health outcomes, but focuses attention instead on arguments that more public health expenditure self-evidently advances the public interest and that quality assurance will be catered for through the introduction of a centrally-located quality assurance body reporting to the Minister of Health.

### An international review of public health expenditure

In a review of the national health accounts of all health systems, no precedent can be found for a developing country increasing its public health expenditure to 8% of GDP. Amongst industrialised countries only two spend 8% or above. Of the eight countries benchmarked as having NHI in the ANC discussion document, only three spend more than 4% of GDP on public health expenditure: Japan (6.5%), Columbia (4.9%) and Chile (4.1%).

Only two of the countries referred to as having NHI in the ANC NHI discussion document in fact have single-payer NHI arrangements: South Korea and Taiwan. All the rest, including Japan, are multi-payer and/or mixed public and private multi-payer systems. However, despite having NHI, total public health expenditure stands at only 3.6% and 3.7% of GDP for South Korea and Taiwan respectively, which compares favourably to South Africa's 3.4%. Aside from other institutional factors specific to their context, their considerable income (roughly three times South Africa's per capita GDP) and favourable employment levels permit a public spend not dissimilar to that of South Africa as a proportion of GDP to fund a universal benefit of some significance.

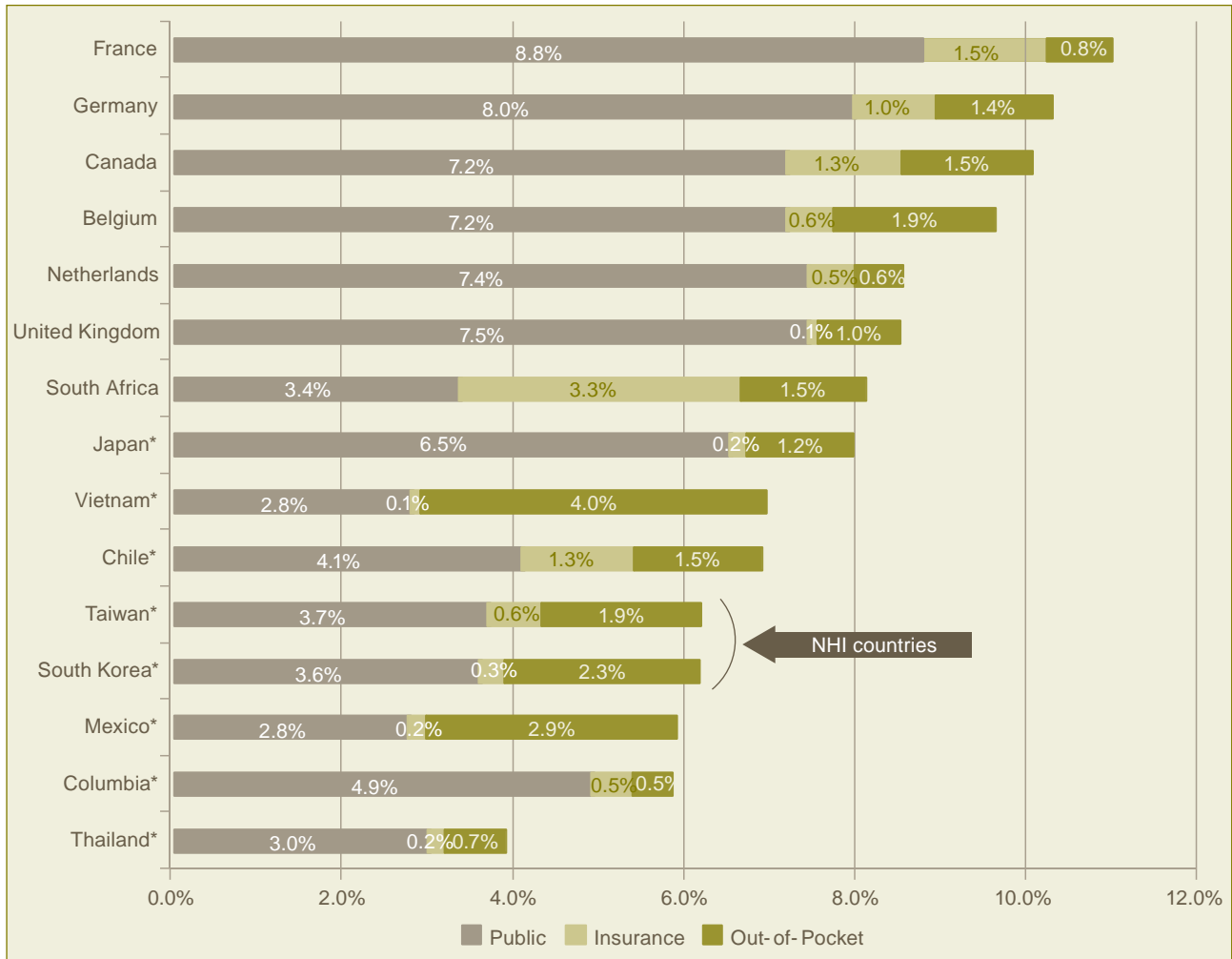
In contrast to the developing countries, industrialised countries spend a higher proportion of GDP on health-care. However, it is rare even for these countries to exceed 8% of GDP on public health expenditure, with Germany and France being the only notable examples. Public expenditure as a percentage of GDP ranges from 7.2-7.5% in the health systems used as benchmarks in the NHI discussion document: United Kingdom (UK) at 7.5%, Canada (7.2%), Netherlands (7.4%) and Belgium (7.2%), as depicted in Figure 3.

The proportion of total health expenditure spent publicly is also unrelated to the type of health system. It does, however, rise with increasing per capita GDP, consistent with the luxury good<sup>d</sup> nature of overall health expenditure, irrespective of whether funding is predominantly public or private.

<sup>d</sup> In economics a luxury good occurs where demand for it rises as a proportion of income with increases in income. Goods that are needed, necessity goods, decline as proportion of income as incomes rise. Health-care goods and services have elements that fall into both categories. For instance the demand for TB treatment should decline with increased income, while the prevention and treatment of all cancers is expected to rise, as a proportion of income, with increases in income.



Figure 3: National health accounts for selected countries expressed as a percentage of GDP, 2008



Source: World Health Organization and Hong Kong Bureau of Food and Health.

### Out-of-pocket payments

South Africa’s levels of out-of-pocket payments at 18.1%<sup>f</sup> are reasonable when compared to the developing countries benchmarked in the NHI discussion document, with only Columbia at 7.9% performing markedly better. Interestingly, both the NHI countries of Taiwan and South Korea have out-of-pocket expenditure as a per cent of total expenditure substantially in excess of South Africa’s at 30.0% and 36.8% respectively (Figure 4).

e World Health Organization (WHO) country statistics ([www.who.int/countries/en/](http://www.who.int/countries/en/)). As Taiwan’s national health accounts are not formally reported by the WHO the data reported by the Hong Kong Bureau of Food and Health was used ([www.fhb.gov.hk](http://www.fhb.gov.hk)). A 2006 breakdown was used.

f The ANC discussion document refers to a figure of 13% which is lower than the WHO estimate. It is not clear where their figure comes from as it is not referenced.

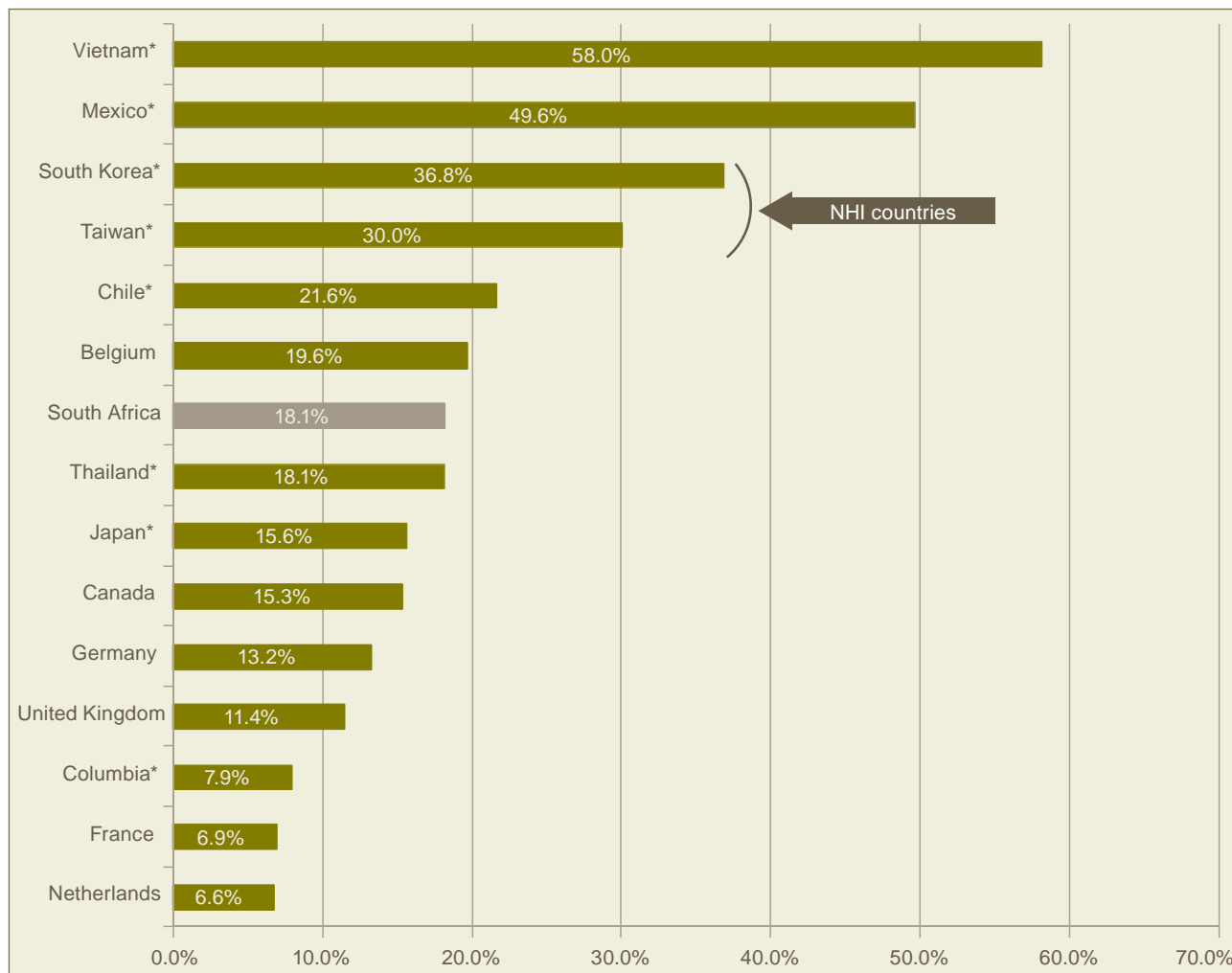
### Health system typologies

Industrialised countries, although characterised by having high levels of public funding, vary considerably in their health systems. Whereas the UK and France have substantial public delivery systems, countries such as Germany, the Netherlands and Belgium have regulated private health insurers directly administering funding and the reimbursement of health expenses. These latter systems are generally classified as social health insurance (SHI) systems and involve multiple payers (i.e. multiple insurers).

Of the countries referred to in the ANC discussion document as having NHI systems, only South Korea (from 1995) and Taiwan (from 2000) correctly fall into this category. All the rest involve some mix of multiple-payer and public system approaches (Table 2).

In both South Korea and Taiwan, the NHI arrangements evolved from systems based entirely on multi-payer fee-

**Figure 4: Out-of-pocket expenditure for selected countries expressed as a percentage of total health expenditure, 2008**



\* Countries benchmarked as having NHI in the ANC discussion document.

Source: World Health Organization and Hong Kong Bureau of Food and Health.<sup>g</sup>

for-service private insurance. In both instances the conversion was a natural and logical progression and did not involve sudden increases in taxation, although in both cases there were unforeseen cost increases resulting in large deficits.

Despite having NHIs in place, both South Korea and Taiwan can be regarded as multi-tier<sup>h</sup> health systems, despite offering some form of universal benefit. This is because both ration their universal benefit quite severely, using co-payments, which require households to fund a substantial portion of their benefits on an out-of-pocket basis. Given this, their levels of out-of-pocket expenditure exceed that of South Africa. (Figure 4).

Despite the mix of systems, all the countries referred to in the ANC discussion document and South Africa offer universal access to health care, with all except Japan (as it is an industrialised country) doing so on a multi-tier basis. Importantly, differential tiers arise as a consequence of the level of economic development of a country and are unrelated to the system typology. Industrialised countries are consequently predominantly single-tier, whereas even relatively affluent countries such as South Korea and Taiwan are multi-tier. As countries such as Columbia, Mexico and Chile develop, their health systems will naturally evolve over time into single-tier systems, with or without a NHI arrangement.

g World Health Organization (WHO) country statistics ([www.who.int/countries/en/](http://www.who.int/countries/en/)). As Taiwan's national health accounts are not formally reported by the WHO the data reported by the Hong Kong Bureau of Food and Health was used ([www.fhb.gov.hk](http://www.fhb.gov.hk)). A 2006 breakdown was used.

h A multi-tier system will be characterised by some degree of differentiation based on income.



**Table 2: Health system types of benchmarked countries in the ANC NHI discussion document**

Country	Access	Tiers	System typology by year			
			1980	1990	2000	2008
Japan	Universal	Single	SHI(mp)			
South Korea	Universal	Multi	SHI(mp)			NHI(sp)
Taiwan	Universal	Multi	SHI(mp)	NHI(sp)		
Thailand	Universal	Multi	SHI(mp)			
Vietnam	Universal	Multi	SHI(mp)			
Colombia	Universal	Multi	SHI(mp)			
Mexico	Universal	Multi	PHS/SHI(mp)			
Chile	Universal	Multi	PHS/SHI(mp)			
South Africa	Universal	Multi	PHS/SHI(mp)			

Source: World Health Organization, 2010;<sup>9</sup> Lee et al., 2008.<sup>8</sup>

**Definitions:** Health system definitions used in Table 2<sup>8</sup>

*NHI(sp)* = National Health Insurance (single-payer): a single statutory arrangement offers a comprehensive universal health benefit on an insurance basis;

*SHI(mp)* = Social Health Insurance (multi-payer): a regulated system with multiple health insurers, both statutory and private, usually with different benefits for income and non-income earners;

*PHS/SHI(mp)* = Public Health Service combined with Social Health Insurance (multi-payer): a publicly provided tax funded health service for those without income and a regulated multi-payer system for income earners.

### Health outcomes and the relationship to the funding and institutional design of the health system

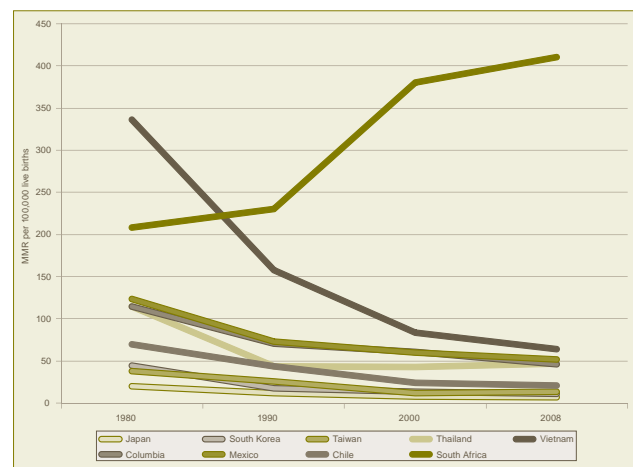
In the ANC NHI document, improvements in key health outcomes directly related to the health service are not explained, with crude reference to the over-riding health system’s design or funding levels. For instance, of the two countries with a form of NHI both had achieved major improvements in their maternal mortality ratio (MMR), which are an indicator of health service quality rather than socio-economic conditions, when they had multi-payer systems. The implementation of NHI is plainly unrelated to the achievement of health outcome improvements.

This observation is further reinforced with reference to the other countries benchmarked in the NHI discussion document, all of which have improved their MMRs with multi-payer, multi-tier health systems not materially different to that of South Africa. Importantly, despite allocating much the same public expenditure to health, South Africa has materially higher MMRs than all comparable developing countries.

Furthermore, whereas these countries are improving over time, South Africa is worsening (see Figure 5). This is indicative of major efficiency concerns in the delivery of public health services unrelated to whether or not a single-payer NHI is in place or to the funding levels.

It is worth noting that both Thailand and Vietnam, countries that spend substantially less than South Africa on public health, have materially improved their health outcomes over the past 30 years. South Africa is consequently an outlier in terms of systems performance which cannot be explained by the broad design of the health system or its funding levels.

**Figure 5: Trends in maternal mortality ratio (per 100 000 live births) from 1980-2008 for the countries benchmarked in the ANC NHI discussion document**



Source: World Health Organization, 2010.<sup>9</sup>

### The financial proposal

The NHI proposal reflected in Figure 1 argues for an increase in public health expenditure from 3.4% of GDP to 8% of GDP by 2025. The target percentage of GDP corresponds with existing estimates of total South African health expenditure and is related to the equity objective underpinning the proposal. Given this, the financial proposal is not really a costing analysis, but rather a phased budget proposal fitted to a 15 year (from 2011) timeline to 2025. However, the overall value of the NHI proposal estimated for 2025 corresponds with cost estimates provided by a number of studies where a complete NHI option was assumed at maximum implementation and appears to accept their broad assumptions.<sup>10,11</sup>

However, these studies were static in nature and costed as if the system were to be implemented immediately. Thus, although the rand value comes out the same, they imply very different percentages of GDP. They also assumed that, where the private sector was contracted, private sector prices would mostly apply.

i The system typologies are derived by reviewing the country information provided by the World Health Organization and categorising them.

The costing assumptions proposed in the NHI discussion document are, however, unclear and appear to suggest that only public sector cost structures apply. This may not be an unreasonable assumption if it is proposed to expand the existing public system, which would eliminate the need for the “SARS-like” centralised purchaser. However, given that the purpose of the central purchaser is to contract with the private sector, the private sector cost of health-care needs to be taken into consideration in any costing analysis.

As the budget proposal is mainly structured to fit within a set percentage of GDP, the technical validity of the bid for funds cannot be judged in conventional value-for-money terms as the target has been set in abstract with no measurable social outcomes. Since the goal of improved health outcomes is not prioritised in the latest proposals and therefore appears to be a secondary objective, the public policy objective could conceivably be regarded, by its proposers, as successful were it merely to reduce medical scheme cover, even in the face of worsening or unchanging health outcomes. As levels of medical scheme participation have little to do with overall improved health outcomes this would, however, be a weak rationale for the budget bid.

Improved budget allocations at the margin are conventionally judged on the grounds of realisable social policy achievements. If this is not done, government services would deviate from allocatively efficient outcomes.<sup>j</sup> Increasing the public health budget merely to decrease medical scheme participation, consistent with the equity objective outlined above, is likely to result in an allocatively inefficient distribution of public services, as the marginal increases in the health budget will invariably begin to deliver a lower marginal social return than equivalent marginal increases in social assistance, basic housing, security, justice and basic education long before it has impacted on medical scheme participation.

Medical scheme cover could, however, deteriorate for a number of reasons. Assuming universally free public hospital services, which is not the case at present, medical scheme members would rationally reduce or move out of cover for good reasons where public health services achieved a quality standard such that further additional private cover became superfluous. However, it is also possible that substantial increases in taxes can cause an affordability problem for lower-income members, who would drop their cover despite the absence of any improvements in public services. If coverage declines exclusively for the latter reason then the net social outcome will be negative, judged on the grounds of health outcomes and access, as higher taxes will not have improved services and merely removed some of the access

lower-income groups could have obtained through their own contributions to a medical scheme.

The services targeted for new investment with the proposed additional taxes will also affect the net cost of the overall health system. Families that purchase medical scheme cover do so primarily for major and catastrophic health events. Implicitly much of the day-to-day care is self-funded, even if funded through a medical scheme. General primary care services are quite low-cost per event and occur so frequently that they are technically uninsurable. Regardless of the availability of free state services, income earners choose to purchase their own primary care services at their discretion amongst all income groups.<sup>k</sup> Expanding these services in the state will not impact on medical scheme coverage, therefore, as they implicitly don't insure them now. Aside from artificially-induced affordability constraints (through higher taxes), medical scheme members will reduce or drop their cover only when the state can adequately offer reasonable access and quality assurance for major medical and catastrophic health events.

The proposals also raise serious macro-economic questions that appear not to have been considered. Given that approximately 5% of GDP is to be raised in additional taxes from current tax-payers, the impact on businesses and private disposable incomes will be considerable. As the taxable income of taxpayers amounts to roughly 24% of GDP, an amount of 5% of GDP raised from existing taxpayers would require a 20% increase in taxes if distributed proportionately. This would require a doubling of existing personal taxes from an average of 20.4% presently to 41.2%. If apportioned in accordance with the existing progressive personal tax structure, the highest effective marginal tax rates would range from 72-79% for those earning R2 million to R5 million per annum respectively. Income earners who in 2010 are earning roughly R154 000 per annum, assuming a progressive tax structure, would face an effective change in tax rates from 14.5% now to 29.2%. If a proportional tax is assumed, this would rise to an effective rate of 35.3%, which is roughly the existing effective tax rate of people presently earning around R2 million per annum now.<sup>l</sup>

Quite aside from the feasibility of the intended absolute levels of expenditure, the front-loaded allocations identified from 2012 to 2017 imply annual changes in expenditure that would severely test the absorption capacity of even a well-functioning health system. However, the existing public health system is very weak and is unlikely to be able to productively absorb the proposed increases. Even were considerable improvements to public health spending considered, the phasing would most

<sup>j</sup> Allocative efficiency refers to the principle used to proportion government goods and services between all its programmes. An allocatively inefficient result occurs where too much funding is allocated to services that deliver low social rates of return.

<sup>k</sup> The General Household Survey indicates that all income deciles make use of private out-of-hospital services despite access to free public sector clinics.

<sup>l</sup> The estimates provided here are based on tax statistics published by National Treasury in 2008 and applicable to the 2006 financial year.

logically involve slow initial growth as the system is properly capacitated.

Overall, therefore, the financial proposal involves a public health budget increase to levels unprecedented in developing countries and rare in industrialised countries, a dramatic increase in taxes to implausible levels, and a phasing strategy which seeks to front-load substantial budget increases on a weak public health infrastructure. This analysis has also not examined the substantial contingent liabilities, such as the risk of significant unit cost changes due to the incorporation of private providers, implicit in the proposals which would require very careful examination if any of these recommendations are taken seriously.

### Administration costs

The ANC NHI discussion document puts the operational expenses at 2.5-2.8% of total turnover.<sup>4</sup> However, no rationale for this low estimate is provided, despite the fact that this organisation is designated to perform many onerous functions for which no private or public sector equivalent exists in South Africa, including inter alia:

- Managing a real-time national population registry;
- Procuring health-care services from every single health provider in South Africa, public and private, for which it will require:
  - At least 52 district offices, for primary care contracts, capitation agreements, and contracts with retail pharmacies;
  - At least nine regional structures, possibly more, for contracting hospital services;
- A substantial information technology system; and
- A substantial fraud detection element.

It is highly unlikely that a complex arrangement such as this could be financed at only 3% of total expenditure. It is also unclear whether South Africa has the range of skills on the scale required to set up the contracts and oversee the rational use of resources.

Using the financial proposals of the NHI discussion document as a base, three plausible administration cost scenarios in addition to the scenario outlined in Table 1 are presented in Figure 6. The three options (of which one includes two options with the same ratio) use the ratio of administration cost to turnover as a crude measure for determining cost and include:

- The administration cost ratio of the single-payer NHI fund in South Korea, which comes to 4%;<sup>8</sup>
- The administration cost of the South African Social Security

Agency (SASSA) of around 6% of turnover;<sup>12</sup>

- The administration cost of the Government Employees Medical Scheme (GEMS) is presently the lowest in the market at 6% of turnover and provides a benchmark for an efficient insurance operator providing no capitation arrangements;<sup>13</sup> and
- A cost structure assuming extensive managed-care interventions in the fund, resulting in a ratio similar to medical schemes in South Africa, which is expected to double the fee-for-service administration cost of GEMS.<sup>m</sup>

It is important to note that the South Korean NHI funds benefits on a fee-for-service basis and consequently has a fairly elementary administration system which differs considerably from the South African proposal. The SASSA also has a relatively simple administrative platform in comparison to health insurers as it merely enrolls people onto social security and pays their benefits, which are fixed in value and paid through pre-arranged pay points. The high administrative cost of the SASSA is counter-intuitive, but illustrates clearly that public entities in South Africa do not necessarily operate efficiently. While a ratio of 6% reflects inefficiency in the case of SASSA, the same ratio is indicative of efficiency in the case of GEMS, which has more onerous functions.

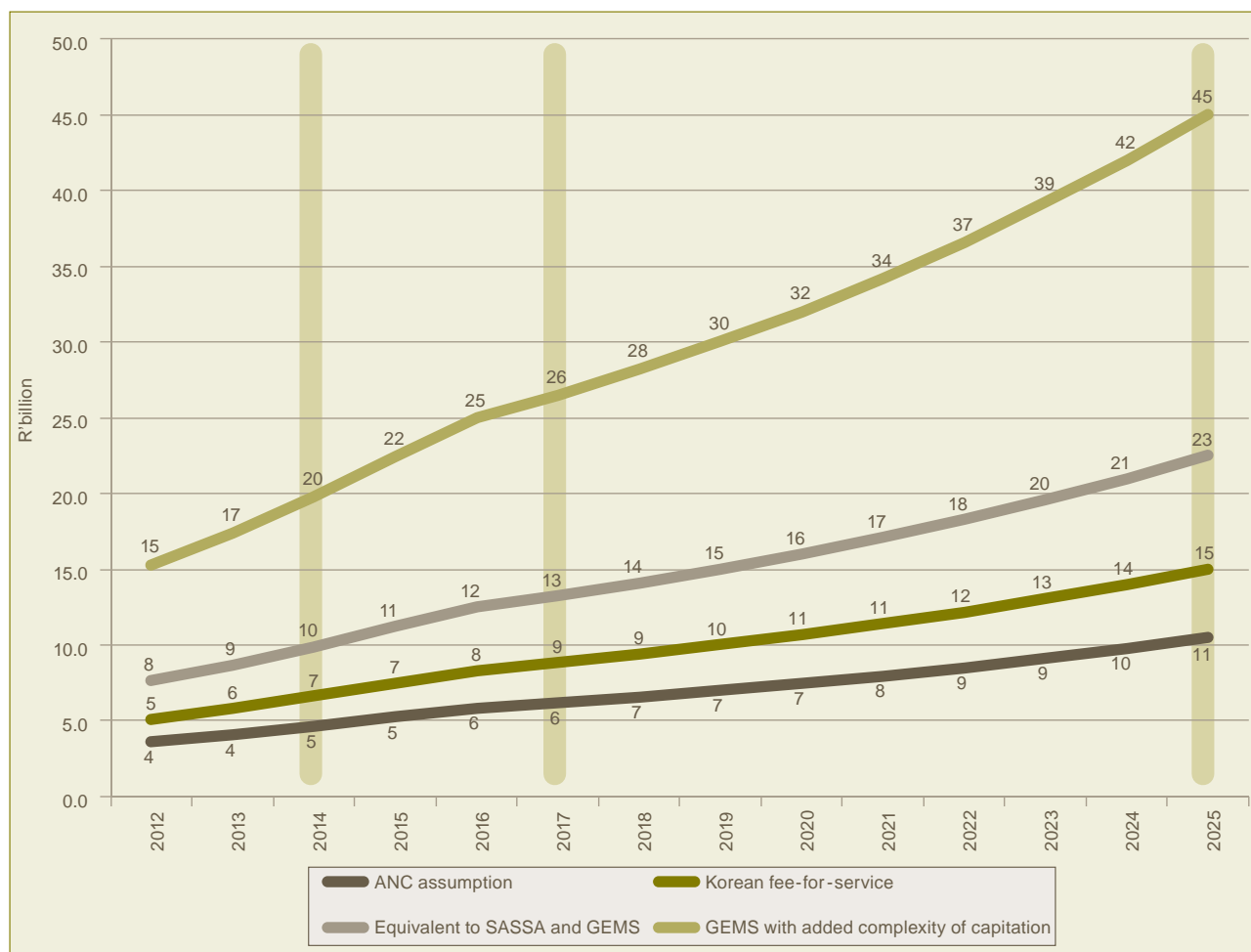
The GEMS with capitation is indicative of the cost of health insurers required to manage more complex funding arrangements, as well as reflecting a high-risk, high-end cost possibility. Such a scenario can be motivated on the basis that the proposed governance structure, which is identical to that of SASSA and involves one minister appointing the Chief Executive, will generate severe administrative inefficiencies and probable corruption that, due to the added complexity of a health administrator, will result in a higher cost relative to turnover than SASSA's 6%.<sup>12</sup>

The results in Figure 6 illustrate a plausible spread of cost for the proposed NHI Fund. Of the four, the least probable are the 3% and 4% scenarios due to the complexity of the proposed institution relative to realistic benchmarks. If the higher cost scenarios, which are at least equivalent to SASSA and GEMS, occurred by 2014 the NHI Fund would cost between R10 billion and R20 billion. By 2017 this rises to between R13 billion and 26 billion. By 2025 the NHI Fund could cost between R23 billion and R45 billion, with the higher figure close to 50% of present provincial health expenditure, and around nine times the existing HIV and AIDS allocations.

The establishment of a NHI Fund which procures health services needs very careful examination before it is given serious

m There is no clear benchmark for this cost. However, it will significantly add to rather than reduce the fee-for-service administration cost. The required close administration is expected to be substantially more complex to administer than conventional fee-for-service.

**Figure 6: Administration costs of the proposed NHI – alternative scenarios (2010 prices)**



**Source:** African National Congress, 2010;<sup>4</sup> Council for Medical Schemes, 2010;<sup>13</sup> National Treasury, 2010.<sup>12</sup>

consideration. Whereas the public health system would most probably benefit from a centralised resource allocation function for both the district health system and publicly available hospital services (consistent with international best practice)<sup>13,14</sup> the centralisation of contracting, procurement and service reimbursement would deeply fragment the public service and reduce coherence and efficiency. Instead, it would be far more logical, efficient and cost-effective to build up the provincial and district platforms to effectively render and procure health services.<sup>11</sup>

The NHI Fund proposal, by contrast, undermines the possibility of fully integrated provincial and district authorities without presenting any evidence showing why this intervention is rational in the South African context. Aside from clear constitutional issues, if attempted it would combine three major risks: increased costs of running the public health service; increased corruption and fraud at all levels of the administration in relation to procurement; and reduced efficiency both during the transition and on an ongoing basis.

<sup>n</sup> Note that reference to a “purchasing” function by a health authority conflates two distinct functions, procurement and service delivery. These are mutually exclusive functions with significant vulnerability to corruption occurring in the case of procurement.

## Earmarked taxes

The use of earmarked contributions conventionally applies to social insurance arrangements where a government mandates participation in some form of private or public insurance system. In such instances the contributors and their families are the beneficiaries and the government intervention is justified on the grounds of an increased level of insurance coverage. Such contributions do not involve significant income cross-subsidies as the primary focus is on maximising the size of an insurance risk pool.

Therefore, where risk pooling rather than income redistribution is the principal goal, a payroll or earmarked contribution is appropriate. Where vertical subsidies (significant income transfers between households) are required, ordinary taxation is the preferred arrangement. This is because in the former instance the benefit principle, i.e. where the contributor receives a direct benefit in exchange for the contribution, is stronger than in the latter instance. An unemployment insurance contribution is consequently not regarded as a tax by employees, but seen instead as a quasi-private insurance contribution. However, an earmarked tax to fund social

grants would invariably be considered a pure redistributive tax as no direct benefit is likely to flow to the contributor, i.e. the benefit principle is very weak and indirect.

The proposed NHI tax is clearly not equivalent to a quasi private insurance contribution and instead has the character of a pure tax. Given this, there is no clear rationale for its introduction as it merely involves a complication of the general tax system that will, in any case, never truly be earmarked. Budgets provided through general government cannot be revenue driven, even where an earmarked tax is present, as expenditures must still be voted on by the various parliaments.

### Citizen buy-in

Claims made regarding citizen buy-in, quoted above, rely exclusively on a survey carried out by McIntyre et al.<sup>6</sup> These results must, however, be treated with caution due to the possibility that the options presented to the respondents could have been open to misinterpretation. For example the statement, “I would join a publicly supported health insurance scheme if my monthly contribution was less than for current medical schemes,” can be interpreted in various ways. Assuming the person was rational and, presented with no concrete scenarios, they could interpret the question in one of two ways: either the reduced contribution is for a benefit equivalent to their medical scheme; or it is for a benefit that is equivalent to what is offered in the public sector. It is possible that the respondents assumed that the scheme was a state-sponsored medical scheme along the lines of the GEMS and did not regard the question as referring to public services.

If the respondent assumed that the benefits would be equivalent to current medical scheme cover then they would rationally pick the public scheme. If they assumed they would be getting existing quality public health services they would plainly pick the medical scheme. Had all the respondents assumed the former, and assuming they are rational, there would have been a 100% response in favour of the public scheme. Conversely, had all the respondents assumed the latter then there would have been a 100% response in favour of the medical scheme cover. The split may result merely indicate that respondents had different interpretations of the question, which could invalidate both the empirical relevance of the survey and its purported findings.

For the question to have improved empirical meaning, specific values should have been allocated to alternative contributions for a range of benefits varying by package size and quality. Similarly for the question, “I would join a publicly supported insurance scheme if I could use public health services for free,” there was also the possibility of the question being interpreted in different ways. It is for instance not clear from

the question whether the respondent would have to pay for the “publicly supported health insurance scheme”. It is also not clear whether they would need to drop their existing coverage in order to pay for the scheme.

## Conclusions

The most recent NHI proposals provided by the ANC do not materially advance the debate on strategic health reform for South Africa. Both the institutional and financial proposals appear detached from the realities of the health system. The institutional proposals involve both short and long-term financial and efficiency risks that should not be ignored.

The financial proposals have no international precedent and exhibit a number of unusual features. These include the fact that the business case for substantial additional funds is not motivated on the grounds of explicit health outcomes or objectives. Instead it relies exclusively on a zero-sum argument that the net macro-economic position would be the same once people have switched from medical scheme into public cover at a point where public health expenditure equals 8% of GDP. However, not even one of the countries used as benchmarks in the ANC discussion document has public expenditure at 8% of GDP. This includes two single-payer NHIs (Taiwan and South Korea) and the third-largest economy in the world (Japan). Furthermore, South Africa’s levels of out-of-pocket health payments are reasonable by international standards, lower than those of the two single-payer NHIs and lower than all but one of the benchmark countries.

The proposed ‘SARS-like’ NHI Fund also lacks a coherent business case indicating how it would improve administration of the public system relative to a focused strategy aimed at fully developing the existing provincial and district structures. Whereas the former option both disrupts the existing public health service and exposes the health services to ongoing systemic risk of government failure (due to procurement-related corruption), the latter merely requires the establishment of centralised resource allocation (i.e. no purchasing) combined with a coherent strategy to build provincial and district authority platforms.

Noticeable by their absence in the proposals, however, are any bold interventions focused on introducing governance and accountability arrangements that would de-politicise the administration of the health service and greatly improve efficiency and outcomes. Until courageous moves are made along these lines, boldness with the country’s national resources will legitimately be questioned.

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