

It has been widely held that the private sector is relatively inefficient and that the predominantly fee-for-service reimbursement system is at the root of the problem. There is thus often an assumption that a future system with changed purchasing behaviour (more strategic purchasing and less passive purchasing) and changed reimbursement (more capitation and use of DRGs) can deliver healthcare more efficiently than the private sector at present. However, hard evidence for the extent of any saving in the public sector or NHI is mixed and the issue is not at all straightforward. This policy brief sets out some of the evidence for this critical assumption in costing.

In the original work on Prescribed Minimum Benefits by Söderlund & Peprah, they found that admission rates for elective surgery in South African medical schemes are almost double those of NHS hospitals in the UK, and approximately four times those of mine hospitals. Three levels of efficiency in managed care are used by Milliman USA: **Loosely-managed** (similar to medical schemes with managed care interventions like pre-authorisation, case management and drug-utilisation review but almost no risk-sharing with providers); **Moderately-managed** (involves some risk-sharing, like per diem or per case rates on hospitalisation); and **Well-managed** (a full implementation of managed care with extensive risk-sharing or complete risk-taking by providers). However, the magnitude of improvement in utilisation in the USA between these levels has not been experienced in South Africa.

Newer evidence from Ellis of Boston University showed that selection of healthier people by age explains most of the observed difference in cost between different forms of managed care in the USA. The major reason managed care plans appear to be lower cost, according to Polsky & Nicholson, is that they can drive down reimbursement rates in the USA. The critical difference between South Africa and the USA is the relative lack of human resources. Given this, it is argued that in the South African environment the price differences for the introduction of managed care are not achievable.

It is now known that there are large differences in definitions of hospital admissions across different countries or provider systems. The Council for Medical Scheme published an admission rate for the SA private sector of **301.7** days per 1,000 lives, whereas USA figures are cited as **132.2** days per 1,000, or a gap of **169.5** days per 1,000. In a recent paper comparing bed utilisation in South Africa and the USA, Van Eck & Besesar showed that a series of adjustments were needed to both the SA data and the USA data for a fair comparison. Differences in coding, ways of recording information and facility types influence the results and after adjustment, the gap had fallen from 169.5 days to **21.7** days per 1,000. The authors argue that the remaining difference may be due to the differing burden of disease in the two countries (HIV/AIDS prevalence in particular) and the differing insurance environment.

In 2001, South African data was used to cost minimum benefits in medical schemes. In the absence of solid evidence on public sector costs, 70% of the full PMB price was suggested for the public sector. Recent work at Medscheme puts the difference in cost per admission at about 20% after adjusting for risk and case mix. However, the average length-of-stay in State is much longer, perhaps because of no case management infrastructure and medical schemes not firmly managing this in the public sector. After adjusting for 14% VAT not paid in the public sector, the difference is at best **6%**.

In the absence of clear evidence of how to adjust the private sector data for the cost of delivery in the public sector, the McLeod-Grobler-Van der Berg model allows for a “family” of cost curves to be developed to illustrate the sensitivity of the total cost to this critical assumption (Table 1 overleaf). These costings should be regarded as preliminary since administration and managed care costs have not been included. The effect of HIV/AIDS in the public sector population is also not fully taken into account and there are a range of technical issues that still need to be addressed.

Although the public and private sectors are not really comparable due to potentially great differences in the quality of care, it was estimated that fully comprehensive cover might cost as much as **R334 billion** in 2009 assuming current medical scheme delivery. The same package would be **R234 billion** if there was a 30% reduction in delivery cost compared to the private sector. The authors said that even if an optimistic 30% reduction was applied across the board, the funding required to fund the NHI at the Basic Benefit Package (PMBs plus primary care only) level is a full **R176 billion**.

Table 1: Preliminary Costing of NHI for a Range of Packages and a Range of Efficiency Levels. Source: McLeod, Grobler & van der Berg, 2010

Cost in Rbn (2009 terms) of Benefit Package Offered by NHI					
Efficiency assumption	Medical Scheme Prescribed Minimum Benefits (PMBs)	Basic Benefits: PMBs+ Primary Care	High Cost Benefits: PMBs+ all In-Hospital	Core Benefits: PMBs+ Primary Care+ In-Hospital	Fully Comprehensive: all healthcare benefits
Medical schemes efficiency: 100% of cost	156	251	224	319	334
Moderate improvement: 80% of cost	125	201	179	255	267
Presumed public sector cost: 70% of cost	109	176	157	223	234
Staff model efficiency: 50% of cost	78	126	112	160	167

Summarised for IMSA by **Jessica Nurick and Shivani Ramjee**

8 March 2010

Further resources on the IMSA NHI web-site

http://www.innovativemedicines.co.za/national_health_insurance.html

- The full policy brief, as well as the slides and tables used.
- The February 2010 report entitled "Preliminary Estimate of NHI Costing in 2009 Rand Terms. McLeod-Grobler-Van der Berg Model Methodology and Assumptions. A briefing paper prepared for National Treasury."
- The spreadsheet of the McLeod-Grobler-Van der Berg Preliminary Model.

All material produced for the IMSA web-site may be freely used, provided the source is acknowledged. It is produced under a Creative Commons Attribution-Noncommercial-Share Alike licence. <http://creativecommons.org/licenses/by-nc-sa/2.5/za/>

