

REVIEW OF THE REPORT ENTITLED,
“INTERNATIONAL COMPARISON OF SOUTH
AFRICAN PRIVATE HOSPITAL PRICE LEVELS”
(OECD, 2016)

EXECUTIVE SUMMARY

The paper reviews the report *International Comparison of South African Private Hospital Price Levels*, “OECD paper” published by the OECD in February 2016. The pertinent aspects addressed in this review are summarised below:

1. The OECD sample size is unrepresentative of the industry, accounting for just 10.7% of total hospital admissions and hospital expenditure over the period observed. Further, profound anomalies were apparent in the OECD dataset, evident in the unusual cost trends reported.
2. The OECD paper attempts to assess the affordability of private hospital services for the average South African. This methodology is fatally flawed, given the significant proportion of unemployed and/or low income South African households who are unable to afford private healthcare at any price. It would be far more appropriate and accurate to assess the affordability of private healthcare based on the income of the approximately 9 million South Africans who are currently members of medical schemes. This would also create a fair basis for comparison with affordability with countries and healthcare systems in richer OECD countries, where national insurance or a national health service systems cover the entire population.
3. The OECD paper attempts to compare the price of South African private hospital services against OECD countries by adjusting local price levels by a blanket Purchasing Power Parity (PPP) index. No attempt is made to use a PPP index specific to the healthcare industry. This methodology has serious shortcomings, as it implicitly disregards the structure of the healthcare sector in South Africa including such relevant factors as the inflation of hospital input costs against that of the CPI, and the impact of imported goods on the cost of producing local hospital services. As such, the analysis artificially inflates South African PPP adjusted price levels and, in particular, double counts the cost of imported goods, particularly pharmaceuticals and other disposable items which account for approximately 30% of the hospital component of the total cost per hospital event .
4. Results from an alternative independent study, which also compared private hospital price levels internationally, differ significantly from the results of the OECD paper. After adjusting for the impact of imported pharmaceuticals on PPP adjusted price levels, using data obtained in this study, it appears to us that prices charged by South African private hospitals are not out of line with prices charged by hospitals in other OECD countries.
5. Given the above flaws, we believe that the results obtained, the subsequent conclusions, and the recommendations are fundamentally flawed, and that the Panel should not take these into account in its deliberations until these flaws in the methodology are adequately addressed. Upon these flaws being addressed, recommendations of the paper should be revised and presented for public comment.

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Introduction

This paper reviews the report *International Comparison of South African Private Hospital Price Levels*, “OECD paper” published by the OECD in February 2016, and presented to the Health Market Inquiry Panel on 17 February 2016.

Discovery Health (DH) participated in this OECD study by providing claims data for all Discovery Health Medical Scheme (DHMS) beneficiaries, with the consent of DHMS. To the best of our knowledge, the DHMS data was included in all workings conducted by the OECD, and in the results published in the OECD paper, even though this is not explicitly acknowledged in the report.

DH was given an opportunity to review a draft version of the OECD paper, and we provided extensive detailed feedback to the OECD. However, the published report failed to address any of our critical areas of concern, leading to what we believe to be flawed conclusions and recommendations arising from seriously flawed methodology adopted for the study. It is for this reason that we address these matters to the HMI.

This review summarises DH’s key concerns, provides evidence of data anomalies, and presents a detailed evaluation of the methodology and assumptions utilised by the OECD. We also evaluate the results and recommendations reached by the authors.

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Data Problems and Apparent Anomalies in the OECD Paper

The data set is unrepresentative

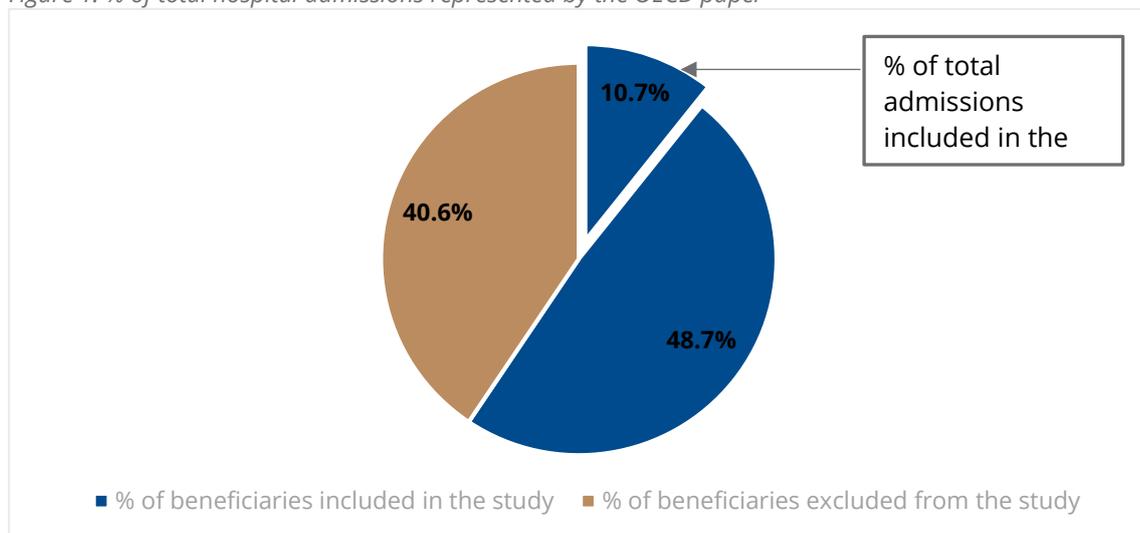
Par 26 states that data for this study was collected from medical schemes representing 59.4% of total beneficiaries in the private sector. However, data for these members was only provided for the 28 selected hospital cases studied in the OECD paper. From the experience of DHMS, these 28 hospital cases represent roughly 18% of total hospital admissions and total hospital expenditure incurred by the scheme in any year.

In this report, total hospital expenditure is equivalent to the sum of the Cost Per Event (CPE) across all admissions. The CPE includes the cost of all providers treating a patient during a hospital admission. This would include the cost of the hospital (made up of the hospital tariffs for ward, theatre and equipment as well as all surgical and ethical pharmacy items), treating specialists, radiology, pathology and other (such as ancillary services).

Assuming that other medical schemes in the industry also spend 18% of total hospital expenditure on these 28 conditions, and given that the OECD data set represents 59.4% of total beneficiaries, the OECD paper bases its analysis on only approximately 10.7% of total hospital expenditure incurred across the industry. This is illustrated in the figures below.

As such, the sample size of the data used in the analysis is neither holistic nor adequately representative of industry experience. Even if it did not suffer from other significant flaws, as outlined below, this fact alone should render its conclusions invalid and certainly not as an adequate basis for making definitive policy recommendations.

Figure 1: % of total hospital admissions represented by the OECD paper



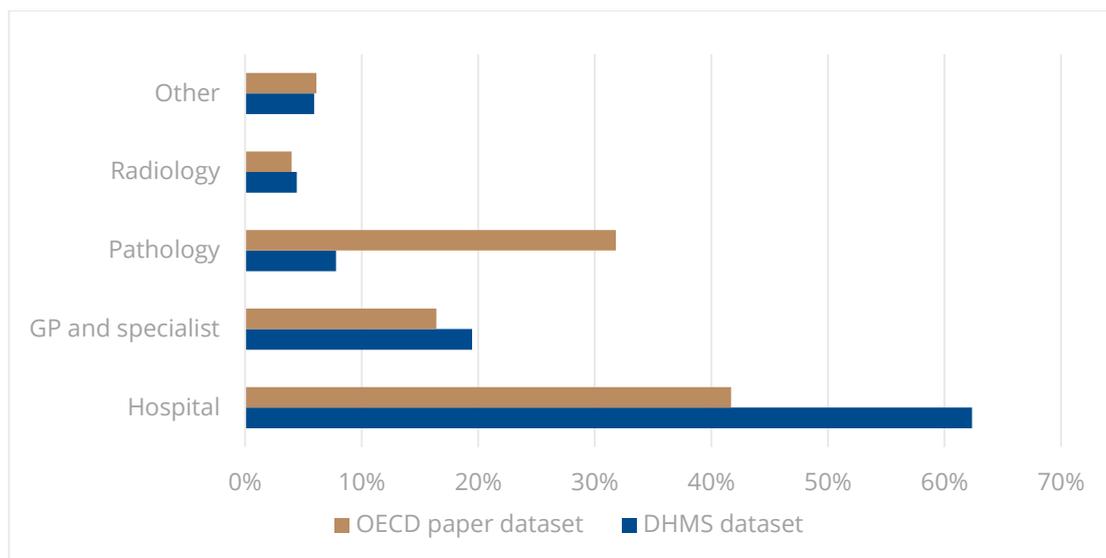
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Data anomalies

Given that the OECD data set represents only 59.4% of the industry, with DHMS data being included in this sample, the results in the OECD paper is heavily weighted to DHMS's experience (since DHMS accounts for almost 30% of the total industry, and therefore approximately 50% of the total sample). This is confirmed by the fact that the results and trends of the study on admission rates per medical case, average length of stay and average total hospital costs closely match the experience of DHMS, with the exception of the results shown in Section 12 (par 58 to par 64) of the OECD paper.

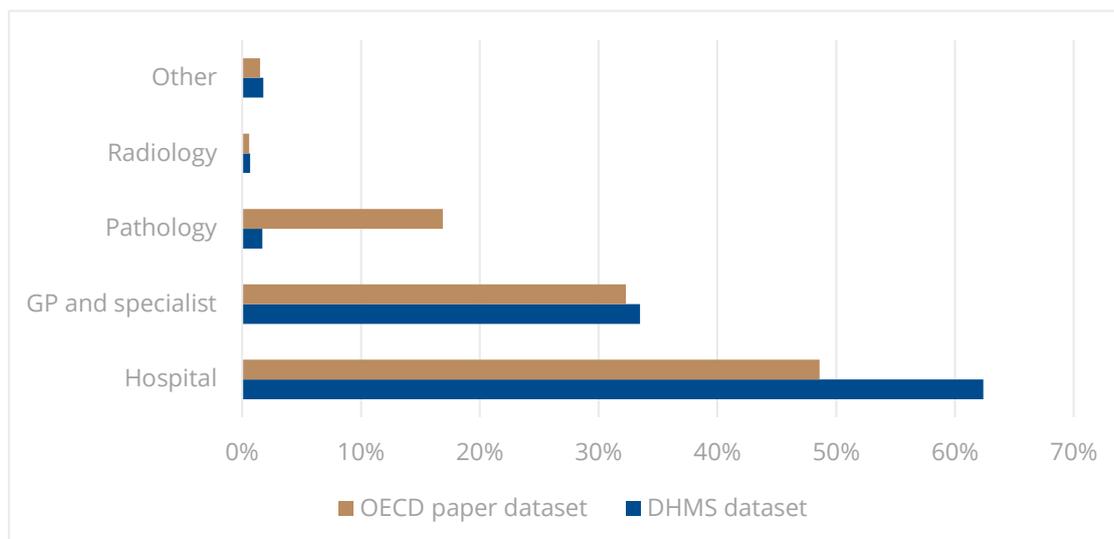
Section 12 of the OECD paper attempts to split the total hospital cost (sum of the CPE across admissions) by provider. For most of the 28 medical cases observed, the hospital tariff component of the CPE is unusually small relative to DHMS's experience, with the share consumed by pathology extraordinarily large for all years observed. This is evident in the figures below, which compares the percentage split of the 2013 CPE by provider type between DHMS's experience and the results provided in Figure 14 (page 33) the OECD paper.

Figure 2: Comparison of percentage split of CPEt by provider type for medical case types between DHMS and OECD results, 2013



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Figure 3: Comparison of percentage split of CPE by provider type for surgical case types between DHMS and OECD results, 2013



The significant discrepancies as shown in the figures above between the two datasets is concerning, and sheds considerable doubt on the subsequent conclusions drawn by the OECD on cost trends, and on the overall evaluation of costs in the report. It seems to us that there are serious data or data interpretation problems. The OECD uses these analyses to infer trends on the distribution of the CPE by provider type, to reach conclusions and make recommendations. We believe that a rigorous data cleaning and data verification process is necessary before any conclusions can be reached on the basis of what appears inaccurate data.

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Detailed Commentary on the OECD Paper

Par 12 -15

The paper is correct in stating that, unlike the other OECD countries, a large proportion of national healthcare expenditure is mobilised via the private sector in South Africa. However, the statement in par. 15, that private health insurance plays a similar role in South Africa to that of some OECD countries, is incorrect.

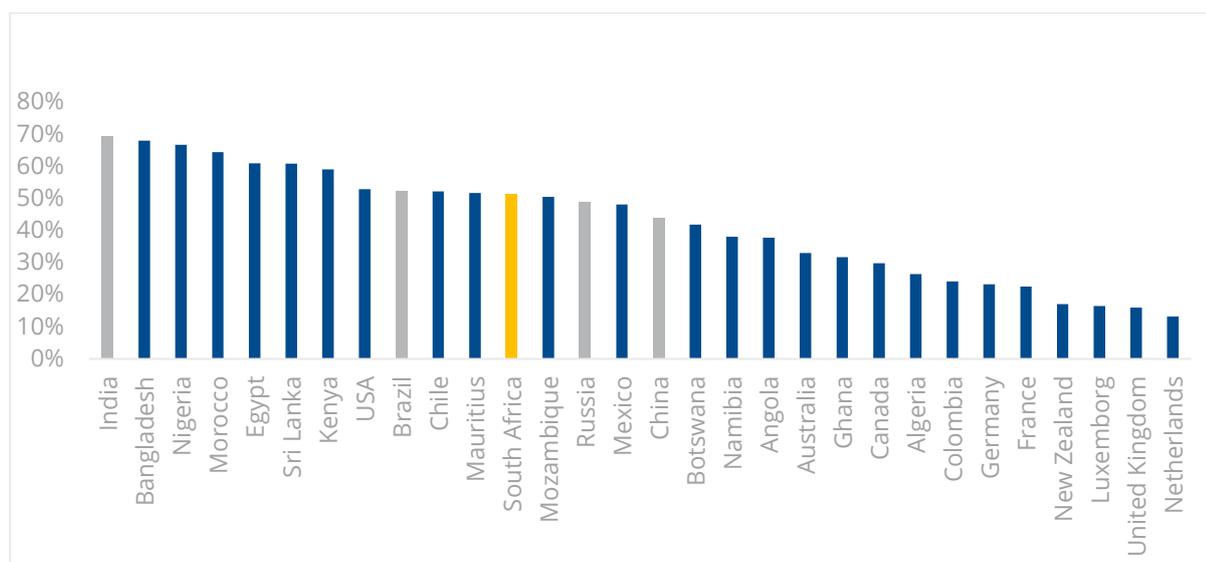
The fundamental difference between South Africa and the OECD counterparts is that citizens purchasing private voluntary cover in South Africa make *exclusive* use of the private sector. In the OECD countries, the large majority of citizens purchasing private voluntary cover use the public system as their primary funder and/or provider of care, with the private sector typically providing care for supplementary services such as elective surgery or dental care and/or providing policy holders with greater freedom of choice and/or quicker access to care than is available in the public system.

Although private insurers may also be permitted to offer duplicative cover, the need for duplicative cover is often obsolete, as care in the public sector is easily accessible and of high quality. Furthermore, unlike South Africa, in these OECD markets, private voluntary cover is traditionally risk-rated without rules of open enrolment and guaranteed acceptance, which means that access to the private sector in OECD countries is restricted relative to South Africa's system of open enrolment and guaranteed acceptance.

In fact, as shown in the Figure below, South Africa is similar to other middle income countries (including its BRICS counterparts), when evaluating private health expenditure as a proportion of total health expenditure. In middle and lower income countries, it is common for a relatively small percentage of the population (usually a subset of those formally employed) to opt out of receiving care from the public sector completely, and purchase their healthcare exclusively from the private sector via private insurance and/or out of pocket payments.

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Figure 4: Private Health Expenditure as a Percentage of Total Health Expenditure (2012)



Source: WHO 2015

Given the data above, we would argue that a comparison against all OECD countries seems inappropriate.

Also, it is mentioned in passing in par. 12, but in our view should be emphasised, that South African private healthcare is structured in such a way that private sector patients in South Africa face roughly 66% lower co-payments than their OECD counterparts. This is an important aspect of providing access to healthcare and increasing affordability to South African consumers, which is not explored in sufficient depth in the OECD paper.

Further, it is not clear why the OECD paper benchmarks prices (and affordability) of South African hospital services against OECD countries, without any attempt to provide context or to quantify the impact of South Africa's economy being fundamentally different to that of most OECD countries. The OECD countries represent the wealthiest and the most developed economies of the world, and do not face the extreme challenges of the South African economy, such as a heavily skewed income distribution, exacerbated by unemployment rates roughly 3.5 times the OECD average. South Africa is a young economy, significantly poorer than the OECD counterparts, with an average GDP per capita of \$13,002, almost a third of the OECD average GDP per capita¹. A comparison against the OECD is therefore questionable, especially in the absence of a reasonable attempt to explore the implications of such significant economic discrepancies. For these reasons, these results should be interpreted with extreme caution before drawing any conclusions.

¹ OECD statistics, OECD ilibrary (2013), <http://www.oecd-ilibrary.org/>

Even the subset of the seven poorer OECD countries (as identified in the OECD paper in par 46), with relatively lower GDP per capita, serves as an unreliable benchmark for South Africa. The average GDP per capita across these seven countries is \$27,303, more than double that of South Africa's.

Par 19

The statement is made that South Africa lacks measures to prescribe, cap or signal prices, unlike OECD countries. We do not believe that this statement is accurate. There are certainly such price signals in the South African market (such as reference to the NHRPL price list), and because some OECD countries set prices in a very similar way to South Africa. In some OECD countries (for example Switzerland and the United Kingdom), private providers contract with both private voluntary insurance companies and with public funders. When private providers contract with public funders, tariffs may be set at the regulated rate or determined with reference to benchmarked prices (usually the tariffs applicable to public providers). However, it is uncommon that these regulated or benchmark tariffs are applicable to contracts between private voluntary insurance companies and private providers. For example, in Switzerland, providers servicing those with supplementary insurance set their prices freely in negotiations with supplementary insurance funders. Although these negotiations usually reference the national agreed point structure (TARMED), TARMED is not a reference price structure. Instead, TARMED is a point structure where "points" are assigned to each medical service based on the intensity of each service.² Similarly in Australia, private hospital tariffs are determined via negotiations between private insurance companies and private providers, in a similar manner in which tariffs are determined between medical schemes and private providers in South Africa³. South Africa is thus not unique in lacking price measures for its voluntary private market, contrary to the OECD assertion in this paragraph.

Par 26

The change in the distribution of beneficiaries by age band between 2011 and 2013 (as shown in Figure 2, page 14, of the OECD paper), provides clear evidence of the anti-selection faced by open medical schemes. During the period observed, as shown in Figure 2 of the OECD paper, more younger (and most likely healthier) members exited medical schemes, while more older (and most likely sicker) members joined medical schemes. It is also stated that a higher proportion of females joined the scheme. Females tend to select against medical schemes, especially during child bearing ages.

These trends of anti-selection (driven by an incomplete regulatory framework) have been observed by medical schemes since 2000, when the principles of open enrolment and community rating without mandatory membership were implemented. As a result, the demographic profile of the medical scheme population deteriorates every year, and younger people are replaced by older people. The graphs below shows the compounded effect of this annual anti-selection observed. From the figures

² OECD, OECD review of health systems: Switzerland 2011, October 2011

³ Productivity Commission, Private hospitals in Australia, Commission Paper, AusInfo, Canberra (1999)

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below it is evident that medical schemes have a higher proportion of older beneficiaries than the general population, as well as a higher proportion of female beneficiaries in child bearing ages.

Figure 5: Medical scheme demographic profile vs demographic profile of South Africa

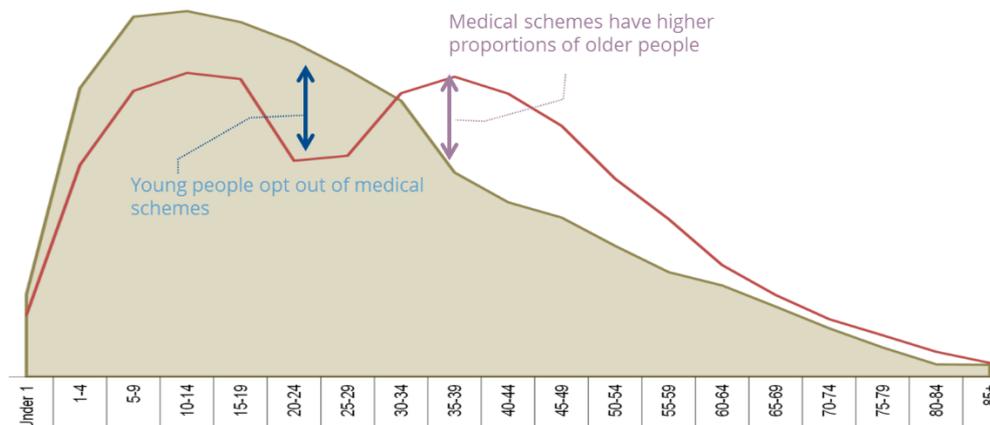
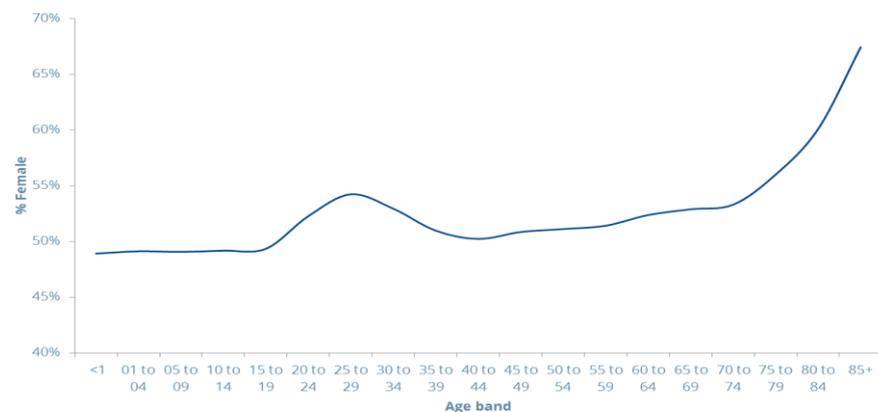


Figure 6: Female ratio of medical schemes by age band

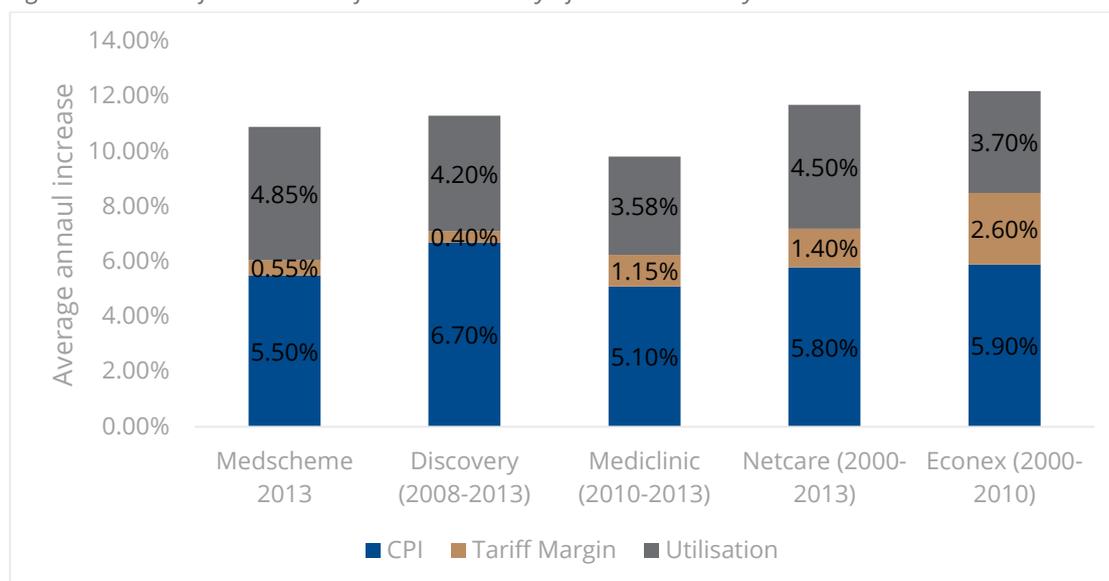


While the OECD paper notes these changes in the demographic profile of medical scheme beneficiaries, the paper provides no considered view on the impact of these demographic changes on the costs observed.

DH has conducted detailed analysis quantifying the impact of this demographic change on healthcare expenditure incurred by DHMS and its other client medical schemes. Similarly, several other large stakeholders across the industry, who have sufficient data to analyse the drivers of healthcare inflation, have provided the HMI with a breakdown of healthcare inflation into its main components, as shown in the following graph summarising the submissions made to the HMI on this matter.

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Figure 7: Drivers of Healthcare inflation - Summary of data received by the Commission



*Medscheme did not explicitly provide a Tariff Margin. This was calculated splitting the residual inflation 50:50 between tariff and utilisation.

The data from the administrators (Medscheme and Discovery Health) represent the average annual increase in plan-mix adjusted claims experience. This includes all claims, not just hospital claims, although hospital claims have the highest weighting. The data from the hospital groups (Mediclinic, Netcare and the Econex research) represent the average annual increase in hospital revenue.

The Medscheme and Discovery Health submissions further split the utilisation components into demand and supply side factors. Demand side factors include components such as aging, changes in burden of disease and impact of plan mix. Supply side factors include components such as new medical technology, new hospital beds, changes in clinical practices etc.

Medscheme and Discovery Health respectively quantified that approximately 88.7%⁴ and 69.0% of the increase in utilisation was due to demand side factors. The submissions go on to state that the demand side factors observed are largely due to adverse selection manifesting in an increasing average age, increasing prevalence of chronic disease, increasing burden of disease and deliberate anti-selective behaviour of members. This is due to the direct consequences of the incomplete medical scheme regulatory framework, specifically the conditions of open enrolment and community rated contributions without mandatory membership or risk equalisation.

The hospital groups were unable to split the utilisation components into supply and demand side factors, as they do not have access to sufficiently detailed exposure and demographic data, as held by medical schemes, to carry out such analysis. The hospital groups however do concur with Medscheme and Discovery Health, attributing the increase in utilisation to predominantly demand side factors, as evidenced by the increase length of stay and increased acuity (case-mix) of admissions as experienced by these hospital groups.

⁴ This was approximated using data provided in the Medscheme submission

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Par 27

Paragraph 27 notes that the data from the OECD includes hospital costs from both public and private providers, while data from South Africa includes private hospitals only. It is important to note that there are significant structural and economic and financial differences between public and private sector providers, and that these undoubtedly impact the input costs, and hence the prices of care provided. For example, in South Africa, the structural differences in the costs between public and private sectors include: differences in taxation (private providers pay VAT and corporate taxation whereas public providers do not), the cost of capital, and preferential purchasing arrangements⁵ (e.g. the public sector has access to pharmaceuticals at State Tender Prices which are significantly cheaper than prices paid in the private sector). These structural differences enable the public sector to provide care at significantly lower costs than the private sector.

Similarly, public providers in other countries may also enjoy such advantages over private players. It is not clear from the OECD paper if any attempt was made at adjusting for these structural differences to ensure a fair comparison between public and private providers.

In fact, a study⁶ comparing the cost of delivering hospital services across the public and private sectors in South Africa shows that, after removing the impact of structural differences on the cost of providing care, private hospital CPE was just 5.8% higher than the CPE in the public sector. This is to be expected, given that the public and private sectors in South Africa face the same input costs that are largely determined by international factors, regardless of the affordability constraints of the local population.

Par 28

The data from the OECD countries represent data from their entire healthcare systems, while data from South Africa represents data from just the private voluntary sector. It is important to note that it is therefore expected that admission rates for specific surgeries (such as knee replacements and hysterectomies) will be higher in a private voluntary environment (even after adjusting for population age/sex structures), as individuals purchasing private voluntary cover do so if access to care for these services is constrained in the public sector. This effect is exacerbated in South Africa, where open medical schemes are exposed to a significant degree of anti-selection, as demonstrated above.

Even in wealthier countries such as the United Kingdom (UK) or Canada, access to public health systems is constrained as policyholders balance the demands of the local population and budgetary constraints. For example, the National Health System in the UK has a significant proportion of people waiting over four months for elective surgery⁷, while waiting times in Canada for elective procedures

⁵ Ramjee S., Comparing the cost of delivering hospital services across the public and private sectors in South Africa, October 2013

⁶ Ramjee S., Comparing the cost of delivering hospital services across the public and private sectors in South Africa, October 2013

⁷ OECD, Health at a glance 2011: OECD indicators, accessed from <http://www.oecd-ilibrary.org/>

are amongst the highest across high income countries⁸. These systems employ rationing mechanisms such as waiting lists, strict gate-keeper referral pathway rules, and exclusions from benefit packages, all of which serves to reduce the admission rate⁹.

Patients in the South African private health sector on the other hand, have immediate access to care, with waiting times a trivial concern for private patients. Medical scheme members purchase private cover to opt out the public sector, to join a system with increased access and freedom of choice. Given this structure and role of the private health sector in South Africa, it is therefore unsurprising that admission rates are higher than those of other national systems.

Another structural difference between the South African private sector and the OECD countries is that, unlike the developed countries, the emergence of day surgery facilities is still in its infancy in South Africa. Advanced healthcare systems, such as the USA, have well developed day clinics and surgical centres enabling simpler surgical procedures to be performed in an ambulatory setting. Recent data suggests that up to 90% of all surgery in the US is now done on a same day basis. In South Africa, the majority of ambulatory and day cases are treated in acute hospitals, with only 15% being conducted on a same day basis. This massive difference thus distorts admission rates and cost comparisons of acute hospitals in South Africa to those of developed countries.

Par 29 – 31

While Purchasing Power Parities (PPPs) aid in international comparisons of prices at a macro level, this measure has severe shortcomings, which become pertinent when making comparisons at a micro (company or industry) level.

The theory of PPP assumes that exchange rates are influenced only by inflation rates, which is incorrect. This shortcoming of the PPP is most notable in South Africa where the Rand has depreciated considerably in recent years. During the period of investigation of the OECD report, 1 January 2011 and 31 December 2013, the South African Rand has depreciated by 52.6% against the US Dollar while the cumulative impact of CPI was 17.2% and 6.4% in South Africa and US respectively.

This means that the application of PPP adjustments on its own to understand fundamentals of competitiveness between countries would draw incorrect conclusions. The direct theoretical link between CPI (or PPI) and PPP does not consider that different industries in any economy experience different levels of inflation depending on the type of industry (e.g. health, manufacturing etc.) and the nature of the economy (e.g. agrarian, industrial etc.). Therefore applying an average PPP to correct for exchange rates with a view to understand an industry or company competitiveness, is fundamentally flawed.

⁸ Commonwealth Fund, International profiles of healthcare systems 2014, January 2015

⁹ Insight Actuaries and Consulting, International benchmarking of hospital utilisation: How does the South African private sector compare?, 21 November 2014

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From the above, it is clear that international price comparisons require a deeper analysis of the structure and nature of the industry considered. In the health sector, key drivers of cost that must be taken into specific account include:

1. Pharmaceuticals, which are mostly imported and therefore depend on exchange rates. It is estimated that on average pharmaceuticals account on average 30% of the hospital tariff component of the total CPE.
2. Medical equipment, also largely imported and dependent on exchanged rates, accounts for more than 10% of the hospital tariff component of the total CPE. .
3. The salaries / fees of healthcare professionals such as doctors and nurses. South Africa faces a critical shortage of healthcare professionals, exacerbated by the international demand for South African personnel. Figure 8 below illustrates the large proportion of South African healthcare professionals employed in OECD countries. This international demand for South African medical professionals has put tremendous pressure on local nurse salaries and doctor tariffs in both the public and private sectors. In the recent years, salary levels for healthcare professionals have been increasing at rates much higher than CPI. For example, the introduction by the public sector of the Occupation Specific Dispensation (OSD) in 2007, increased public sector nurse salaries by 20% - 23%¹⁰. Private hospitals have had to closely match salary hikes in the public sector in order to ensure their salary levels remain competitive. Evidence from private hospitals show that current public sector salary levels are higher than salary levels in the private sector, especially for highly qualified nurses, confirming that it is in fact the public sector, and not the private sector, driving the cost of labour¹¹.

Figure 8: South African healthcare professionals employed in OECD countries

	Total in home country	Number working in OECD countries	Percentage of home work force
Doctors	32 973	12 136 (8 countries)*	37%
Nurses & midwives	184 459	13 496 (7 countries)**	7%

Source: WHO (2006:100)

* Australia, Canada, Finland, France, Germany, Portugal, United Kingdom, USA

** Canada, Denmark, Finland, Ireland, Portugal, United Kingdom, USA

Note that the above table excludes New Zealand, a popular destination for South African doctors

Source: Human Sciences Research Council, The Shortage of Medical Doctors in South Africa, March 2008

4. Other significant hospital input costs include food and electricity both of which have been increasing at rates higher than CPI due to specific economic factors pertaining in the SA economy in recent years.

¹⁰ <http://www.polity.org.za/article/sa-tshabalalamsimang-meeting-with-hospital-chief-executive-officers-on-nurses039-salaries-13072007-2007-07-13>

¹¹ Mediclinic Southern Africa, Submission to the Competition Commission, 31 October 2014
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The OECD paper fails to demonstrate any level of analysis that deals with the above factors that are pertinent to (1) the health industry and (2) South Africa. The PPP methodology adopted in the OECD paper fails to recognise the effect of imported goods on the production of hospital services, given that about 30% of the hospital account comprises of imported pharmaceutical and other disposable surgical products. With this reliance on imported goods, all else being equal, a deterioration in the local currency would thus increase local costs and hence prices for hospital services. The OECD report does not acknowledge the extent of the Rand depreciation above inflation (CPI) rates in South Africa, and makes no attempt to adjust for this in the price levels provided in the paper. This is a further fundamental shortcoming of the OECD analysis.

Similarly, the PPP adjustment, which is an index dependent on CPI, weighted by price levels of general goods, does not consider differentials in the price of *hospital* input costs. Given that hospital input costs have increased at rates significantly higher than CPI, using a general PPP index would significantly overestimate price levels in the South African healthcare sector.

Par 33 – 36

The study aims to assess the affordability of private healthcare services for the population as a whole, “rather [than] a specific population subset that can already afford to use these [private healthcare] services”. In order to do this, price levels of hospital services are compared to average GDP per capita, with all figures PPP adjusted.

The fundamental flaw is that the OECD is assessing the affordability of a *private* good for a large proportion of the South African population that is unemployed, or has low income levels. Unlike OECD countries, the South African economy is plagued by stubbornly high unemployment rates, with the unemployment rate in South Africa at roughly 3.5 times the OECD average (25.3% in 2014).

Given this disparity between South Africa and the OECD, together with the fact that the analysis only considers care provided in the private *voluntary* sector of South Africa, it would be more appropriate to use the GDP per capita of the subset of the population actually purchasing private healthcare cover. It has been estimated that the sub-population medical scheme members in South Africa has a GDP roughly 2.7 times the average population¹². This would be equivalent to a GDP per capita of \$34 806. If the OECD were to make an appropriate adjustment to reflect the wealth of the target market of private medical schemes in South Africa, relative price levels in South Africa would not be out of line with those of OECD countries.

However, by expecting a country's wealth (as measured by GDP per capita) to correspond to price levels of hospital services, the analysis in totality is flawed. This argument implies that, in a country with no income, private hospital services should cost nothing, and prices should be zero, which is clearly not realistic.

¹² Inferred from Income and Expenditure Survey (2011), StatsSA
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Par 42

It is not unexpected that surgical services would have the highest prices. Firstly, surgical procedures are more complex than medical procedures, and include the cost of the theatre, surgeons, anaesthesiologists and surgical products. Secondly, the surgical products consumed are largely imported, and are directly impacted by changes in exchange rates.

The table below shows the pharmacy component of complex surgical procedures compared to a relatively simple medical admission: Normal Vaginal Delivery (NVD). As evident the pharmacy component (both ethicals and surgicals) makes up a significantly higher proportion of surgical procedures compared to NVDs.

Table 1: Pharmacy component on total hospital cost by procedure – DHMS experience

Procedure	Pharmacy (Ethicals and Surgicals) Component of CPE
Coronary Artery Bypass Graft	██████
Hip Replacement	██████
Knee Replacement	██████
NVD	██████

The variation in the results in Table 7 (page 21) of the OECD paper illustrates further shortcomings in the methodology adopted by the researchers. The variation in the annual rate of change in prices per case type observed is the product of the effect of various factors at play including:

- Change in the case mix of patients per case
- Change in the mix of hospitals from which services were provided
- Change in the distribution of members across medical schemes and plans
- Change in the mix of pharmaceuticals utilised

Further, all hospital tariffs (for a hospital group), increase by the same percentage points across a scheme each year. Tariff increases are applied to hospital accommodation and theatre fees only. Pharmaceuticals used in hospital, on the other hand, are sold at cost by the hospital, and increase at the Single Exit Price and the Net Acquisition Price, prices that are not determined by the hospital.

It is therefore important to note that change in the price levels observed in Table 7, is not an indication of increases in provider tariffs over the period, but consists of a multitude of factors that must be quantified in order to isolate the impact of tariff inflation on costs observed.

Par 43

As discussed above, hospital input costs increase at rates higher than CPI, and are determined by largely macroeconomic factors, beyond the control of private providers. It is therefore inconsistent to use CPI as a benchmark for hospital tariff increases.

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Par 44

The results in Table 8 are highly questionable, given the volatility of prices provided. For example, comparative price levels of South African hospital services decreased almost 10% from 103 in 2012 to 94 in 2013 when compared to 20 OECD countries. This must be incorrect, and raises concerns of the robustness of the methodologies used in the study.

Secondly, in both Tables 8 and 9, surgical services are significantly more expensive than medical services. To reiterate, this is to be expected given the reliance of surgical services on imported goods and that the study did not adequately allow for exchange rate fluctuations observed over the period.

Par 47 – 49

As discussed above, this argument in totality is fundamentally flawed as it assumes that in countries with no income, the cost of producing healthcare services and hence the price of healthcare services should be zero. Similarly, this logic implies that as unemployment rates increase, the cost of producing private healthcare services should decrease, resulting in a fall in the price of healthcare services.

Figure 5 (page 25) of the OECD paper compares the price of private hospital services to the average GDP per capita for South Africa as a whole. As noted above, it is not surprising that South Africa is out of kilter to the OECD, given that unlike the OECD countries, a significant proportion of the South African population is unemployed and therefore unable to afford private healthcare, at any price.

For a more realistic view, one should consider comparing the GDP per capita for the medical scheme population, which was roughly estimated at 2.7 times the average South African GDP level. Using this approximation, the South African private sector would be more in line with the trend across the OECD.

In addition, the crude analysis in the OECD paper fails to recognise the income-cross subsidies inherent in the design of closed medical schemes and in the plans tailored for the low income market in open schemes. It should be noted, for instance, that in 2014, DHMS members with income rated contributions (typically lower income members) received an income-based cross subsidy amounting to R568 million from the rest of the scheme, which was offset by the net surplus of accrued to the scheme by higher income members.

It is important to note that DHMS is not the only scheme offering products aimed at lower income earners. There were 26 low income products across the open market in 2014, covering 850 000 members. In addition, employers typically rate contributions by income for members on all plans of closed schemes, to facilitate the coverage of their low income employees. At an industry level therefore, this income cross-subsidy is likely to be quite substantial, without which low income earners' ability to purchase cover would be severely compromised. By not acknowledging this impact of income cross-subsidies on affordability for lower income earners, the OECD paper has no basis to conclude that "hospital services are less affordable than other countries in this study."

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Par 51 – 53

The shortcomings of the analysis is highlighted with surgical procedures being artificially inflated due to inadequate adjustments for exchange rate fluctuations. As a result, surgical procedures are shown to be more expensive than medical cases.

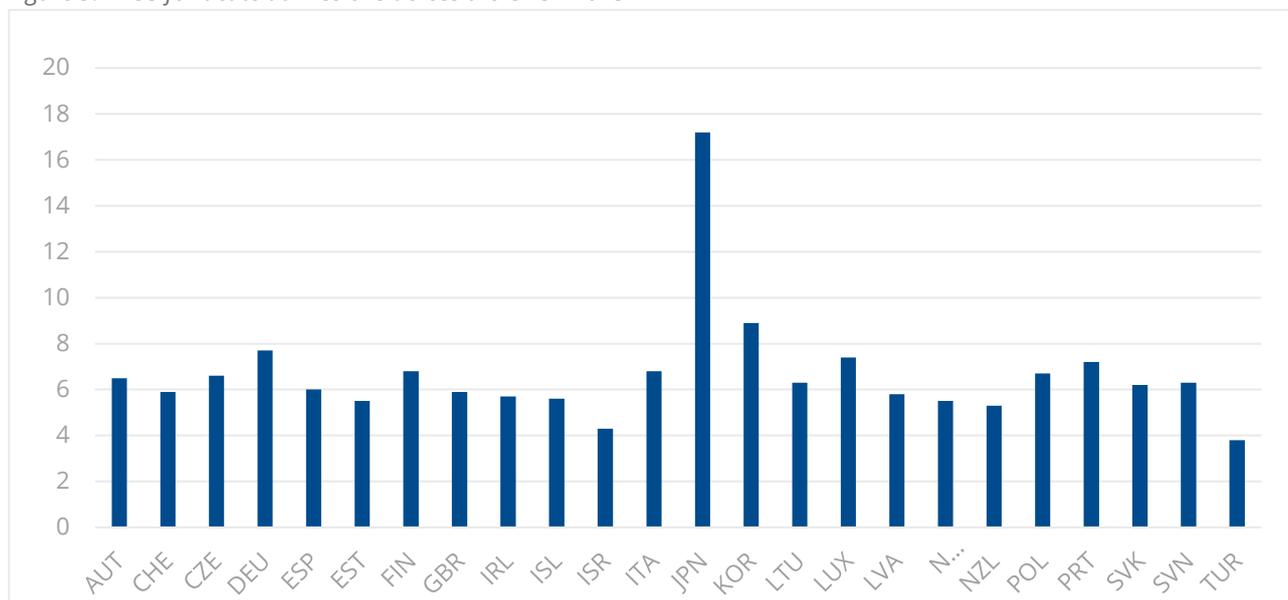
Par 55 -57

As discussed above, the analysis compares the South African private voluntary market to universal systems across the OECD. Given that the membership of medical schemes in the South African market is voluntary, with members purchasing care if and when it is needed, together with the regulatory environment that cause and exacerbate anti-selection, it is not surprising that utilisation rates in South Africa are higher than the OECD average.

Par 58 – 60

In the presentation to the Health Market Inquiry Panel on 17 February 2016, it was suggested by the OECD representatives that the lower ALOS observed may be an indicator of poor quality of care, as funders pressurise providers to discharge patients. This assertion by the OECD is concerning, given the variation in ALOS observed across the OECD countries themselves as shown in Figure 9 below.

Figure 9: ALOS for acute admissions across the OECD 2013



Source: OECD

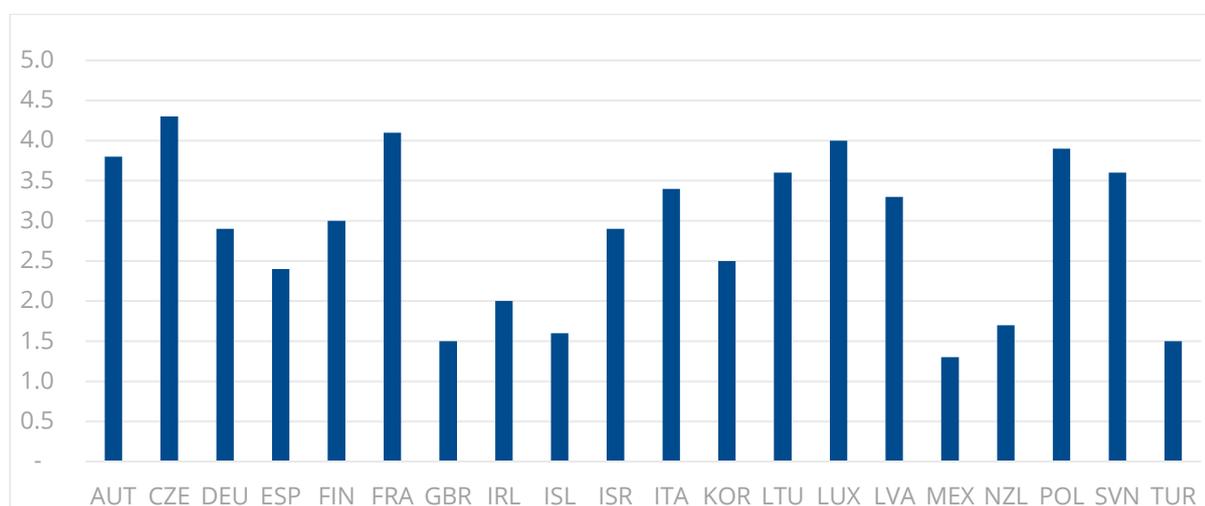
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Research has demonstrated that this sustained international variation in ALOS is driven predominantly by non-clinical factors such as cultural norms, hospital bed availability, payment incentives and the accessibility to long-term care facilities¹³.

For example, Japan has the highest ALOS across the OECD at 17.2 days on average per admission in 2013. This high length of stay is as a result of the abundant supply of hospital beds and the structure of hospital payments in Japan which provide hospitals with incentives to keep patients longer¹⁴.

The variation of ALOS for maternity admissions across the OECD, as shown in Figure 10 below, is further evidence that ALOS is not an indicator of quality, but driven instead by non-clinical factors. In Germany, the high length of stay observed is due to the option mothers have to remain in hospital for a few days after birth for additional nursing support. In Sweden, the discharge of mothers are delayed due to a shortage of paediatricians, delaying the routine examination of the new born, resulting in a longer ALOS than clinically necessary¹⁵.

Figure 10: ALOS for maternity admissions across the OECD 2013



Source OECD

Greater insight is therefore required on the structural features of the South African private sector to understand South Africa’s observed ALOS. In particular, managed care is a well-developed field in the South African private sector, and DH has invested significantly to employ sophisticated techniques, ensuring patients receive care that is provided cost efficiently without compromising quality.

¹³ Tiessen J., What causes international variations in length of stay: a comparative analysis for two inpatient conditions in Japanese and Canadian hospitals, August 2013

¹⁴ OECD, “Average length of stay in hospitals”, in Health at a Glance 2011: OECD Indicators, OECD Publishing, 2011

¹⁵ International comparisons of selected service lines in seven health systems, Evidence report, October 2014,

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/382854/Annex_12_Maternity_services_in_Swedish_County1.pdf

Case management protocols at DH are concentrated on ensuring the clinical appropriateness of hospital admissions with a stringent pre-authorisation process. Once patients are admitted to hospital, the case manager seldom intervenes on matters such as length of stay for routine procedures. It is also important to note, that while reimbursement with the hospital may be on a risk-sharing basis, doctors are always reimbursed on a fee-for-service basis and therefore have no financial incentive to discharge a patient prematurely.

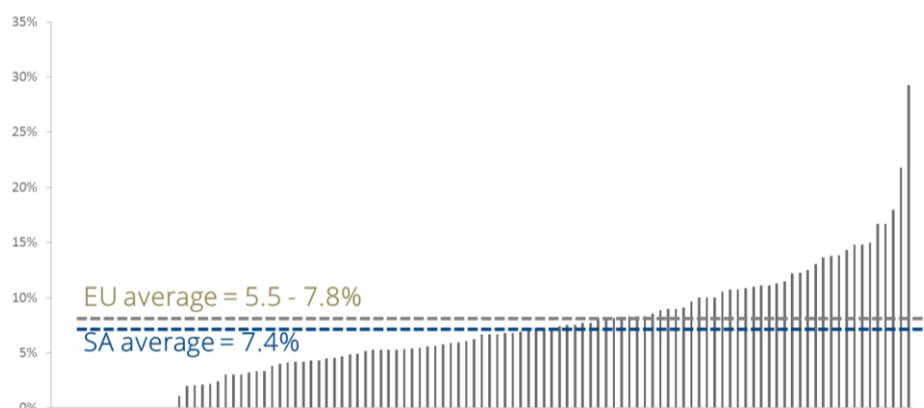
It is therefore irresponsible to assume a correlation between ALOS and quality outcomes in South Africa without supporting data or evidence. Instead, the lower ALOS observed in the South African private sector could well be attributed to clinical efficiency. Further analysis is required, benchmarking South African quality outcomes data internationally, before such assertions are made.

While outcome data on quality indicators is in its infancy across the medical scheme industry, DH is committed to ensuring that the care received by members is not compromised. In fact, over the recent years, DH has steered provider contracting from the traditional avenues to value based purchasing, where quality of care is prioritised.

In order to monitor quality outcomes, DH has introduced patient surveys where patients are able to assess the quality of care provided. These results are now available publicly to assist members in making informed decisions when choosing a healthcare provider.

In addition, there are various platforms across the private industry, enabling stakeholders from both the funder and provider sectors to collaborate on enhancing quality such as *Best Care Always...!* As shown in the figure below, in a study comparing acute myocardial infarction mortality rates, the South African private sector was found to have mortality rates within the European Union average range.

Figure 11: Mortality rate for Acute Myocardial Infarction 2008 -2011

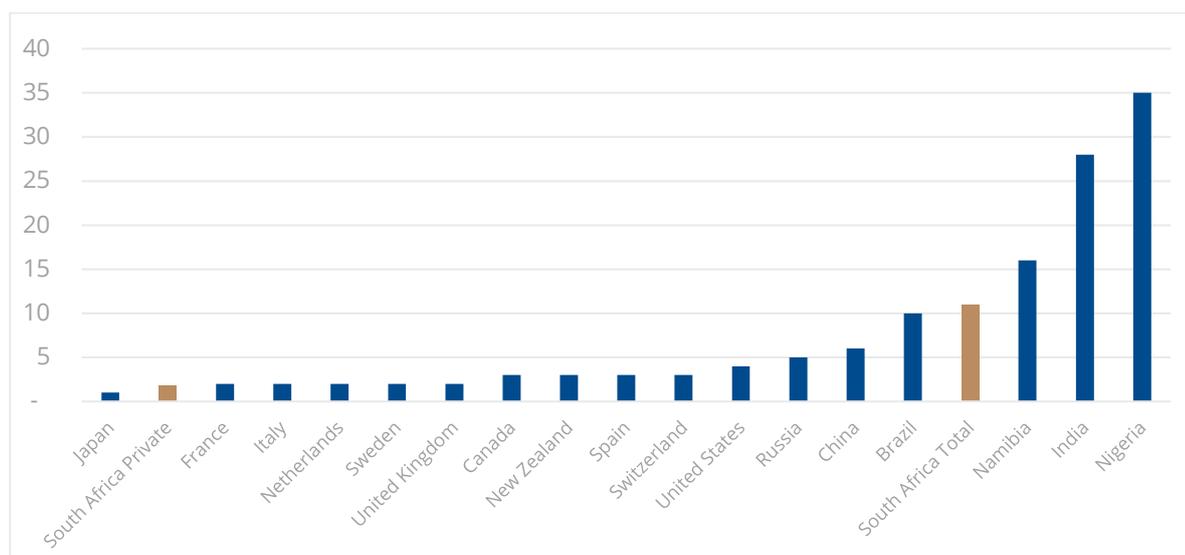


N=111 hospitals

Similarly, a comparison of neonatal mortality rate internationally shows that the South African private sector performs in par with health systems of higher-income countries. In the figure below, the South African private sector data was calculated based on DHMS's experience, while all other figures were extracted from the World Bank database.

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Figure 12: Neonatal mortality rate (<28 days) per 1000 live births



Source: DHMS and World Bank

Par 61

It is expected that the surgical procedures listed here would have the highest price per day. This is due to the high weighting of pharmaceutical products making up the cost of surgical admissions.

Par 62

As discussed above, because pharmaceutical products (which make up on average 30% of the hospital component of the CPE) are sold at cost price by the hospital, (due to the Single Exit Price regulations and the Net Acquisition Price model), it is critical that hospital tariffs are analysed in isolation of the pharmacy component to quantify the effect of hospital tariff inflation.

Par 65- 73

The above critique outlines the shortcomings of the methodology adopted by the OECD. Evidence that the analysis is not robust and methodologically sound is provided in the volatility of the results observed. On the basis of such flawed analysis, it is therefore premature to make a recommendation of price controls to contain healthcare inflation. In addition to the fact that this recommendation is based on flawed methodology and hence flawed results, the utilisation data referred to above, and confirmed in 6 submissions from significant stakeholders to the HMI, clearly illustrates that price controls will have negligible effects on future rates of medical inflation.

Other than providing insight into whether South African price levels of hospital services correspond to GDP per capita trends as evident across the OECD, the paper provides no information on the relative international competitiveness of South African hospital services, the affordability of these services to

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the medical scheme population and the underlying drivers of healthcare inflation as experienced in South Africa.

In particular, the OECD analysis fails to acknowledge the impact of demographic change on healthcare inflation. This is concerning, given that stakeholders from both the provider and funder sectors, have unanimously proven that the excessive healthcare inflation in the private sector is largely driven by demographic factors stemming from anti-selective effects.

In fact, detailed analysis of health expenditure data, from stakeholders across the industry, provides evidence that provider tariff inflation is only marginally above CPI year on year. Thus implementing price controls without addressing the shortcomings of the solidarity regulations governing medical schemes, will do little to improve the affordability of private healthcare for the average South African.

Industry experts¹⁶ have estimated that under a mandatory environment for those formally employed, (a reform that would adequately protect schemes from the risk of anti-selection), medical scheme contributions would be about 17-23% lower than current contribution rates. Even with price controls, it is unlikely that provider tariffs could be reduced to such proportions without being detrimental to the sustainability of providers. This then reiterates that the suggestion of the OECD of price controls is premature without a comprehensive analysis of all factors driving the healthcare inflation trends observed.

¹⁶ McLeod H, Expanding Health Insurance Coverage, NHI Policy Brief 2, Innovative Medicines South Africa

iFHP INTERNATIONAL PRICE COMPARISONS

DHMS is a member of the International Federation of Health Plans (iFHP). The iFHP is an independent association of private health funders, enabling the collation of market intelligence at a global level. As a member of iFHP, DHMS participated in a study and received data on the CPE for selective healthcare services across a few countries, including South Africa, for 2015. This data is to be included in the upcoming iFHP price comparison report, expected to be published shortly.

The iFHP analysis is an alternative methodology for international cost comparisons of healthcare services. This alternative methodology has the following merits over the OECD paper:

- The data for all countries is provided from the private sector only. This enables a more consistent global comparison, eliminating the impact of distortions in price levels arising from structural differences between the public and private sectors.
- The analysis is done on a case type level, significantly reducing the effect on changes in price levels arising from changes in case-mix from one year to the next within a country and from differences in case mix between countries.
- The data is provided in US Dollars, enabling the assessment of South African private sector price levels against international counterparts, before and after the data is adjusted for PPP.

At the time of writing, the iFHP has not completed the checking and quality control on all components of the data. We have been requested not to release the draft results until this process is complete. We will do so immediately upon notification that the comparison may now be published, which we expect to be around the end of March. At this point, based on our discussions and interactions with the iFHP, it appears that the results contained in their report will give a different perspective on relative hospital costs.

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