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Further response to the OECD/WHO report: “International Comparison of South African Private Hospital Price levels”

15 September 2016

1 Introduction

This note regards the OECD/WHO report entitled “International Comparison of South African Private Hospital Price Levels” (OECD Working Paper 85). That report was published on the OECD and WHO websites on 17 February 2016, as well as presented to the Competition Commission’s (CC) Health Market Inquiry (HMI) on the same day. The aim of that OECD report is to compare prices in South Africa’s private hospital sector with those in a number of OECD countries. The report finds that South African private hospital prices are on par with those of OECD countries with much higher income levels. It is commented that the prices are therefore higher than one would expect from the level of development of South Africa, indicating that these are too expensive. The study finds that the main contributions to private healthcare expenditure in South Africa are hospital costs and specialists fees. Given the finding of high hospital prices the policy recommendation is some form of price control.

Mediclinic requested Econex to write an economic critique of this report, which was submitted to the HMI on 1 April 2016. Our critique concluded that the finding of high hospital prices is not credible as it is based on incorrect price comparisons and a fundamental misunderstanding of the South African healthcare sector. We also highlighted that we do not agree with the policy conclusions that flow from this flawed analysis, as price controls will not address the problems identified (e.g. scarce human resources), nor does this flow from a competition analysis that would be required in this instance.

Mediclinic and Econex attended and presented our critique at the special hearing of the HMI that pertained to this paper and the various critiques that the HMI had received. This took place on 30 August 2016 at the HMI offices. In that hearing the OECD/WHO persisted with its conclusion and (on the same day) provided a presentation and a follow on report to the HMI documenting this.

Econex has now had time to peruse that OECD/WHO presentation and follow on report, both of which include detailed replies to the Econex critique of their initial report (as well as to all parties that submitted critiques). In the below we substantiate why these replies are not sufficient or acceptable, with particular reference to the items pertaining to the ‘Mediclinic-Econex’ critique in the OECD’s follow on report.

2 General response to the OECD

We have read and considered in detail the OECD's response to our first critique submitted to the HMI on 1 April. In our opinion, that response has not addressed or significantly influenced our general comments on the OECD paper. As stated in our first critique and also emphasised in our presentation of 30 August, we maintain that the OECD analysis cannot be used to arrive at their specific conclusions or to make the said recommendations. This is due to a number of reasons, including technical errors and incorrect assumptions; many of which are addressed in more detail below.

Additionally, we want to reiterate the fact that the OECD paper does not constitute a competition analysis of any kind and therefore does not add value in the current competition market inquiry forum. There are also no economic or empirical models, adding to the disjoint between the study aim, the analysis and final recommendations.

3 Response to specific statements/ subjects

3.1 The relation between hospital prices and specialist prices

Page 18 of the OECD's reply (of 30 August) highlights that 'the Mediclinic authors… repeatedly state that specialist fees are not a component of hospital prices'. Related to this they state that the authors (Econex) 'misunderstood the cost component analysis in the OECD study and therefore arrive at misinformed conclusions.'

In South Africa private hospital costs are made up of ward, theatre and equipment billing codes. Doctor and specialist fees do not form a part of a private hospital's income. The OECD report analyses the cost per event of hospital episodes, i.e. including expenses relating to the hospital, the doctor/specialist, radiology, pathology, etc. The OECD paper incorrectly finds that specialist costs are driving private hospital *prices*. It may well be that specialist costs are driving total cost per event of hospital episodes though, but it cannot in any way drive private hospital prices.

Whilst the issue is mainly one of terminology used in the OECD report, we have repeatedly reiterated that specialist fees are not a component of hospital prices. This is emphasised in order to avoid one misinterpreting that private hospitals are the driving forces of total hospital episode-related price increases. Notwithstanding the many flaws in the OECD analyses that bring into question their findings, one must be clear that specialist fees are not known or determined by private hospitals. If those fees are found to be problematic, then policy recommendations should be directed accordingly. Regulating private hospital prices will not address cost per event increases if driven by a factor outside of the private hospitals' control.

3.2 The relation between CPI and hospital prices

Page 19 of the OECD's reply (of 30 August) responds to various parties' (including Econex's) concern that general price inflation is not a suitable measure against which to compare hospital price inflation. The OECD reiterates their position that they only wanted to 'evaluate whether health care prices are increasing above the rates of growth for other goods and services in the economy as a whole'.

General price inflation is not a suitable measure against which to compare hospital price increases. In South Africa, the 'health' proportion of the South African CPI basket makes up only 1.39% (1.46% in the CPI basket for urban areas). Of this, hospital services make up only 3%. Health-related inflation additionally has many specific factors. These include items such as nurse wages (generally set in the public sector), utilities required to run a hospital (e.g. electricity), and equipment (in turn influenced by the exchange rate). The prices for these items often increase at rates higher than the items in the general CPI basket. Health-related and specific inflation is a globally recognised phenomenon.

Whilst one may compare any two variables, we do not agree that the comparison of hospital prices with headline inflation is founded in any logical hypothesis or is able to provide any useful insights. The only value would be to confirm what is known from international literature and what would be one's ex ante expectation; i.e. that health inflation is generally higher than CPI. However, in the OECD paper this benign and uninteresting finding is presented as unique or problematic for the South African private health sector.

3.3 The comparability of the OECD and SA sample

Pages 21-23 of the OECD's reply (of 30 August) responds to various parties' (including Econex's) concern that, in comparing the OECD and SA sample, the OECD should make control for various factors. The OECD explains that control for 'case-mix' was implicit in their choice of treatments and weighting of these is in overall utilisation. They also state that 'many procedures included are routine and/standardised and thus severity does not apply'. No comprehensive control was therefore made for age, gender, burden of disease, severity or relevant demand and supply side factors.

Again, we think this may be an issue related to terminology, but impacts significantly on the analysis performed. In our understanding, 'case-mix' in the South African context does not refer to the representativeness of the group of treatments making up overall utilisation (i.e. that more appendectomies are performed than open heart surgery, for instance). It refers to the severity of cases included, i.e. are the appendectomies included in the various country samples the same in terms of resources used, time in theatre, co-morbidities and other demographic factors of the patient that may influence the procedure itself. We note that the OECD maintains that the coding used leads to standardised procedures rendering controls for severity unnecessary. In our experience, very few cases are exactly the same – without controls for severity (case-mix) the samples will either be too small to use (if comparable) or then incomparable due to the lack of controls.

We do not comment further; suffice to refer back to the table from our critique. This highlights the many differences in the two samples, for which no controls were made.

Table 1: Summary of sample differences/ controls required

Comparability check	South African sample	OECD sample	Comparable?
Is treatment at public or private facilities in question?	Private hospitals	Public/private hospitals	X
Which type of private coverage is considered?	Supplementary, duplicative	Supplementary, duplicative, complementary; with varying combinations (in addition to, as mentioned above, public healthcare)	X
How representative are the samples of the respective private healthcare populations?	60% or less of private beneficiaries; one or two administrators' profiles	Participating countries conduct their own surveys, each with a different sample size; Eurostat and the OECD verify the methodologies used	X
What is the service delivery model of the respective healthcare systems?	Catastrophic based hospital care combined with step down facilities[1]	This is not considered by the OECD	X
What do the demographics of each respective population look like?	Ageing medical scheme population, burden of disease (consider regulatory landscape and resultant anti-selection)	This is not considered by the OECD	X
Which prices are being compared?	Actual prices or reimbursement rates (it is not clear which is used by the OECD in analysing South Africa) Privately determined/negotiated prices	'Quasi prices' – as per section 2.3.2 of this report Publicly and privately determined prices (influenced significantly more by non-market forces)	X

3.4 The treatment of outliers and day surgeries

Pages 23-24 of the OECD reply (of 30 August) respond to the fact that Econex questions the way in which the OECD removes outliers in their analyses, as well as the way (if any) in which the OECD controls for different service delivery landscapes (e.g. day surgeries) in their comparison of two samples. The OECD reiterates their methods for outlier removal and discusses that they did indeed control for service delivery landscape, albeit on the basis of an analysis of only 4 (of 28) of the case-types.

Whilst the first point does not form part of our central critique, we reiterate that the method of outlier removal could potentially bias the results. We have discussed this is our report of 1 April. We also

[1] Step down facilities will not always be included but do influence the data, as one would expect higher average hospital cost per day but lower length of stay of people are moved to step down facilities.

recognise the means of control for service delivery landscape, but do not agree that this is likely to have provided a robust and comprehensive control.

3.5 The use of 'quasi' prices

Pages 28-29 of the OECD reply (of 30 August) respond to various parties' (including Econex's) concerns regarding the use of quasi prices in the OECD analyses. The OECD reiterates that these 'prices' 'emulate a competitive situation where prices equal average costs per product.' The OECD also assumes that 'in South Africa private hospital prices are negotiated and are not based on the results of transactions in an open and competitive market.' They determine this on their interpretation of a paper by Erasmus and Theron (2016).

Starting with the latter point, the paper in question discusses the countervailing power on the side of medical schemes (i.e. to drive hospital prices down, not up). How the OECD determines that negotiations are uncompetitive is unclear. Finally, we maintain our position that 'quasi' prices do not form a sound basis for the international price comparison that the OECD has attempted. Pricemetrics has elaborated on this point; we do not repeat.

3.6 The OECD's PPP adjustments

Pages 29-30 of the OECD reply (of 30 August) relates to Econex's query of whether the OECD used output-based hospital prices in their PPP analysis, and whether productivity differences are accounted for in this way. The OECD's reply confirms both points i.e. output-based prices were used and productivity was controlled for.

This provides the detail that was required (and absent in the OECD report). We do not comment further.

3.7 The relevance of informal payments

Pages 30-31 of the OECD reply (of 30 August) respond to various parties' (including Econex's) concern that informal payments were excluded from the analysis. The OECD states that 'informal payments are usually directed to the physicians and not the hospitals… the argument of the existence of informal payments is thus irrelevant to the price comparisons.'

The issue with this statement by the OECD is self-evident. As mentioned in 3.1, the OECD is analysing CPE (all costs relating to a hospital episode including doctor/specialist costs). How this can then not be relevant is unclear. This again casts doubt on the OECD's contextual understanding of the South African private healthcare sector.

3.8 The disaggregation of DRG data

Pages 34-35 of the OECD reply (of 30 August) respond to various parties' (including Econex's) concern that even in the OECD data … not all prices are available at the individual patient level, but instead only at the level of DRGs.' The OECD states that 'If data are available at category level, the correspondence between case types and DRG-like categories has been reviewed to decide whether the DRG definition matches the case type definition. The decision was made on the basis of an agreed threshold of at least 80% of cases within each DRG for which the selected case type-specific diagnosis and/procedure codes could be assigned. As a result, only a subset of the case types might be included in the analysis.'

We do not comment further, suffice to note that this brings into question the consistency and validity of the samples used by the OECD in their analyses.

3.9 The analysis of GDP per capita

Pages 40-41 of the OECD reply (of 30 August) responds to various parties' (including Econex's) concern of the relevance of a comparison between hospital prices and GDP per capita across countries. The OECD reiterates that this is a sound procedure.

Our main concern in this regard, as also put forward by others, is that a simple comparison of private hospital prices and GDP per capita (considering the whole population) across a limited (and structurally different) sample of countries does not yield any useful insights. I.e. the OECD provides no empirical model and no comparator countries in this analysis. We do not agree that this simplistic exercise provides useful insights – neither within a competition or alternative economic framework.

3.10 Private voluntary health insurance

Page 47 of the OECD reply (of 30 August) highlights various parties' 'societal and system level perspectives' on 'the affordability of private voluntary health insurance for all South Africans'. In this part of the reply the OECD specifically mentions Econex's statements that 'Private Hospital prices do not influence public hospital prices as there is no competition between them (mainly due to quality differences).' And 'The decision to access healthcare in the private healthcare sector is a voluntary decision and the price paid for this service does not impact at all on the price of accessing the public sector.'

The OECD does not comment on these statements, appearing to only highlight them. We therefore have no basis for a response, but maintain these statements. Firstly, private voluntary healthcare is a choice. Secondly, there is only a spillover effect from private to public sector prices in respect of doctors. But these prices are not determined or known by the private hospitals – they are determined by the shortage of specialists and in turn due to the lack of training capacity. (Additionally there is

generally a spillover effect in the opposite direction from the public to the private sector in terms of the prices (salaries) of nurses – especially for highly qualified and more experienced nurses.)

Finally, there are dire quality differences between the public and private hospital sectors. This is well known and therefore we did not previously elaborate on this. Nevertheless we have done so in a previous publication[2], which discusses the demise of public healthcare, the level of 'qualified' public audits for the sector, the level of 'irregular' expenditure in the sector, and the required levels of intervention recommended by public annual audits. In contrast we have also discussed in that publication that, by 2008, the healthcare outcomes produced by South Africa's private healthcare sector were such that it was ranked alongside the healthcare sectors of countries such as Australia, Sweden, Belgium, Switzerland and Ireland.

3.11 Private/public facilities' healthcare usage

Pages 50-52 of the OECD reply (of 30 August) highlights Econex's mention that more than only medical scheme members utilise the private healthcare sector. The OECD therefore argues that affordability of private hospital services are an issue for all South Africans.

Our report of 1 April highlights that our previous work (in 2013) found that 28-38% of the population was served by the private healthcare sector. We however reiterated in our report of 1 April that those non-medical scheme members who utilise the private healthcare sector are expected to do so mainly in respect of *primary* healthcare services and not necessarily hospital care (rendering the affordability of private hospital services irrelevant to those users).

Notwithstanding this, we have drawn attention to this in order to correct the facts with which the OECD contextualises its study. We also note that, in 2013 and 2014, only 0,14% of total medical scheme expenditure was spent on public hospitals[3]. This sets aside the OECD's claims that there is significant cross utilisation from private to public hospitals.

3.12 Health prices vs health expenditures

Pages 50-52 of the OECD reply (of 30 August) responds to various parties' (including Econex's) concern that the OECD study fails to analyse the impact of demographic changes on prices. The OECD states that 'several reviews continually confused the price increase of a group of services with health expenditure increases, estimated as price times volume' and that the OECD 'does not expect to see that demographic changes impact on prices'.

We have already discussed that the OECD analyses costs per event of hospital episodes. These are indeed expenditures, influenced by both price and volume. The CPE is expected to rely on the amount of care provided in that episode of hospital care (dependent on patient characteristics, e.g.

[2] Econex, 2013. The South African Private Healthcare Sector: Role and Contribution to the Economy.
[3] CMS annual reports, 2013 and 2014.

age and severity of treatment) as well as the price of the resources utilised for that episode of hospital care (dependent on various demand and supply side factors). For e.g. time in theatre is usually priced per minute, implying that the cost per event of that hospital episode includes the price *and* time (volume) of the theatre component, i.e. expenditure on the theatre part of the CPE.

Accordingly we do expect that demographic factors are important – in understanding both the level and changes (over time) in prices, volumes and expenditures; and both in the SA and the OECD samples in the case of comparisons. The OECD's omission of this brings into question the accuracy of their analyses.

3.13 ALOS, quality of care, and admissions comparison

Pages 64-65 of the OECD report (of 30 August) highlight Econex's statement that 'ALOS found in other local studies is within a reasonable range of that found by the OECD study. Therefore whilst we cannot validate the OECD's ALOS values for South Africa because of differing formulas and samples, we do not find their results to be vastly out of line.' The OECD does not comment on this statement, but goes on to discuss that, in their view, 'low average length of stay in South Africa is a finding of concern.'

We have discussed in our report of 1 April that South Africa's service delivery model is significantly different to those of the OECD countries, and that this has an interdependent relation to financing structures. We therefore highlighted that it would be relevant for the OECD to consider this in a cross-country comparison of utilisation. The OECD however does not do so. We accordingly cannot comment on their finding of differences between ALOS in South Africa relative to OECD countries. We additionally do not see how the OECD determines or interprets that South Africa's low ALSO is concerning – no evidence or analysis is provided to support such a statement.

3.14 Hospital-funder negotiations

Page 66 of the OECD report (of 30 August) responds to various parties' (including Econex's) 'argument that competition is sufficient and no price regulation is needed.'

Econex's statements are however quite different. In particular Econex's statements that the OECD refers to, discuss that: hospital-funder negotiations have become more competitive over time, that negotiating power is now well balanced between the buyers and sellers of healthcare, that both funders and hospitals have implemented many mechanisms that drive costs down, and that hospital-funder negotiations involve a robust process.[4] Within this context and notwithstanding that the OECD finds that the CPE price drivers are un-related to these negotiations (rather relating to specialist fees,

[4] Erasmus, M. & Theron, N., 2016. Market Concentration Trends in South Africa's Private Healthcare Sector. South African Journal of Economic and Management Sciences, Vol. 19, No. 1.

which are unknown to the hospital and do not form part of these negotiations), we do not agree that artificial control of prices is in any way useful, nor is it likely to achieve the desired objectives.

3.15 Drivers of cost escalation

Page 71 of the OECD report (of 30 August) responds to Econex's statement that medical inflation is generally higher than headline inflation. The OECD argues that 'such variations are primarily related to factors that are amenable to change because the health sector is dominated by supply side factors.'

'Medical' or 'health-related' inflation is generally higher than headline inflation. We have earlier discussed (section 3.2) that headline and healthcare-related inflation rates involve different input costs and that the price of hospital input items often increase at rates higher than the headline CPI basket.

Finally, we do not see how the OECD determines or interprets that the health sector is dominated by supply side factors. Discovery, in their response to the OECD report, discusses various studies' (Medscheme, Discovery, Mediclinic, Netcare, and Econex) disaggregation of health care inflation. In every instance it is found that, after account for headline inflation, utilisation is the main driving factor of healthcare inflation. Discovery and Medscheme further analyse these factors and find that in both cases demand side factors drive the utilisation increases (Medscheme and Discovery respectively attribute 88.7% and 69.0% of utilisation increases to demand side factors).