

# **A brief on the updated medical component of CPI**

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### **A. Introduction**

The health component of the Consumer Price Index has undergone a fairly major overhaul in the past year. The changes relate to:

- the classification of medical aid contributions,
- the weights for the health component,
- the method used to price the services of medical professionals,
- the method used to price hospital services.

These changes have been introduced as part of a general overhaul of the South African CPI, which in turn was part of the regular (5-yearly) reweighting and rebasing of the index.

### **B. Key changes to the CPI as a whole**

Changes introduced to the South African CPI in 2009 have been aimed at ensuring that the country's most important economic indicator is in line with international standards and reflects the experience of South African consumers.

The principal changes to the CPI are:

- Introduction of Owners' Equivalent Rent as the measure of owner-occupied housing costs instead of interest rates on mortgage bonds;
- Alignment of the headline and inflation target measure through the new Headline CPI (for all urban areas);

- Dropping of the CPIX as the inflation target measure;
- Introduction of new weights; and
- Use of a 12 month parallel survey to link the old and new series.

## **C. Changes to the Health Component of the CPI**

Health pricing has been a subject of significant and often polarised public debate over the past few years. In this context, Stats SA believes that a reliable, accurate and objective measure of inflation for various health components is in the public interest. To this end, substantial effort has been placed on a robust measurement of health inflation. Accordingly, coverage of the health components is more extensive than would normally be warranted by the relatively small weight for this category.

### **1. Classification**

From January 2009, the South African CPI is classified according to the Classification of Individual Consumption by Purpose (COICOP). COICOP is the standard international classification for data relating to Household expenditure and consumption. The previous classification was the International Trade Classification (ITC) which is no longer maintained internationally.

One of the features of COICOP is a specific product group for insurance. Previously, insurance had been included under the category for which it provided cover. Health insurance (of which medical aid premiums are part) used to be included under Health. It is now included in the Insurance group together with dwelling, home contents, vehicle and funeral insurance.

In order to assist users who are particularly interested in health inflation including medical aid contributions, Stats SA publishes a special table which shows the health products, services and insurance together.

Table 1. Combined Health table from the February 2009 CPI publication

Table 17 - Medical industry: Consumer price indices and percentage changes for all urban areas

Index description		Weight	Index (2008=100)			Percentage change	
			Feb 2008	Jan 2009	Feb 2009	Month-on-month	Year-on-year
Health	Medical products	11,07	97,0	104,3	104,5	+0,2	+7,7
	Doctors	12,04	100,6	100,6	111,1	+10,4	+10,4
	Dentists	1,94	100,4	100,4	109,9	+9,5	+9,5
	Hospital services	3,50	100,9	100,9	109,8	+8,8	+8,8
Medical insurance		71,45	100,8	100,8	112,2	+11,3	+11,3
Health including medical insurance		100,00	100,4	101,2	111,1	+9,8	+10,7

## 2. Weights

The weights of the Consumer Price Index are based on the proportions of household expenditure on a range of products and services. The primary data source is a household Income and Expenditure survey (IES). The most recent survey was conducted in 2005/06.

Table 2. Health weights in the CPI

	2000	2008
<i>Total health</i>	<i>6,90*</i>	<i>1,47</i>
Medical professionals	2,25	0,72
Hospital services	0,63	0,18
Medical products	2,47	0,57
Medical equipment	0,14	n/a
Medical insurance	1,51	3,68

\*including medical insurance

The weight of health in the CPI based on the 2000 IES was 6,9%. This figure included Medical Aid contributions and other medical insurance of 1,51%.

The dramatic reduction in the health weight was not a result of decreased expenditure by households. Rather, it is due to the elimination of double counting

that was included in the 2000 weights. The 2000 weights included in their totals the payments made by medical schemes on behalf of their members. This should not have been included because the medical aid contribution was already accounted for.

Looking at the IES data from 1995, 2000 and 2006, we see an increasing but relatively low level of expenditure by households on health, and which is more inline with the current CPI weighting.

Table 3. Health expenditure as a percentage of total health expenditure (excluding insurance)

	<b>1995</b>	<b>2000</b>	<b>2006</b>
Proportion of household expenditure on health	1,2%	1,5%	1,9%

Source: Income and Expenditure surveys

### **3. Medical products**

The medical products component of the CPI consists of prescription and non-prescription pharmaceuticals. The non-prescription drugs comprise a list of commonly used over the counter medicine. The list includes Pain killers, Cough mixture, Vitamin and mineral supplements, Sinus medication, Fungal medication (foot and hand), Cold and flu medication, Heartburn medication, Muscle pain relief gel, Sore throat lozenges and Laxatives.

Prices for non prescription medicines are sourced in supermarkets by Stats SA's price collection field team. Data on prices of prescription medicines are sourced via the company that handles electronic transactions between pharmacies and medical schemes. The prices of 178 prescription drugs are tracked on a monthly basis. The 178 drugs account for 80% of consumer expenditure on prescription medicine.

Dispensing fees are also tracked in the CPI and are sourced from the same data provider as prescription pharmaceuticals. The average dispensing fee is recorded for each of the 178 prescription drugs that are included in the CPI calculation.

#### **4. Medical services**

Medical services refer to all out of hospital service by medical practitioners. Prior to 2009, Stats SA used the guideline prices as set down in the Department of Health's National Health Reference Price List (NHRPL). Two difficulties presented themselves in relation to this practice. The first was that the values in the NHRPL were often updated with a CPI-linked inflator, thus creating some circularity. The second, and more fundamental problem, was that it was clear that most medical professionals did not charge the recommended fees.

Stats SA now conducts a survey of fees charged by medical professionals. A total of 550 medical professionals including General Practitioners, Gynecologists, Physicians, Pediatricians, and Dentists is surveyed once a year. The sample is drawn on a national basis from a database of private medical practitioners maintained by the Board of Health Care Funders. They are asked for their fees for a consultation and a limited range of (out of hospital) procedures. A price is obtained for four different groups of patients. These are patients without medical aid, and patients on three different (high end, mid range and low end) medical schemes.

Table 4. Comparison of changes between 2008 and 2009 in doctors fees from NHRPL and Stats SA survey

	<b>NHRPL</b>	<b>CPI</b>
<b>Item Description</b>	<b>% change</b>	<b>% change</b>
GENERAL PRACTITIONERS	10.13	11.30
OBSTETRICIANS AND GYNAECOLOGISTS	10.29	10.67
PHYSICIANS	12.22	10.67
PAEDIATRICIANS	11.22	11.26
DENTISTS	9.45	10.75
<b>Average change</b>	<b>10.66</b>	<b>10.96</b>

Table 4 shows a comparison of average percentage changes for different groups of medical professionals. Interestingly the changes recorded by the Stats SA survey and those registered by the NHRPL are very close on average.

## 5. Hospital services

Previously, only public hospitals were surveyed to track changes in hospital prices. However, the IES showed that 94,6% of expenditure on hospital services was in private sector facilities. On this basis, public hospitals are now excluded from the CPI basket.

Discussions were entered into with the Hospital Association on the most effective way to measure costs in private hospitals. Three options were explored:

*Pricing of specific services (tariff items)* such a day in a ward, minutes in theatre etc). This option was not adopted because hospitals may shift charges and markup between components resulting a skewed inflation picture if some of those components were not included in the survey.

*Tracking of an average price per procedure.* This approach would have involved the hospitals simply calculating the total revenue for a particular hospital visit (e.g. treatment of TB, Caesarian section birth, and appendectomy) and dividing

by the total number of incidents. This approach was not adopted because the CPI has a principle of tracking precisely the same product or service in each survey period.

*The approach that was adopted involves selecting a set of accounts at a particular point in time.* The accounts are drawn on a random basis from the most common incidents requiring medical treatment and surgery, as well as the two birth types. The quantities of time in hospital (and theatre), and drugs and consumables used therefore remain constant for each account. Each account is then repriced on a quarterly basis. Changes in the total amount payable in each period are then recorded. There is no subweighting of procedures and all price changes are aggregated using a geometric mean.

This provides a reliable mechanism to track the actual costs associated with specific hospital stays.

## **6. Medical insurance**

The medical insurance component is exclusively comprised of medical scheme contributions. Annual contributions for a wide range of medical schemes are recorded once a year. The main improvement introduced in 2009 has been an expanded sample.

## **D. Conclusion**

The South African CPI has two equally important objectives. The first is to provide a general measure of inflation in the economy. The second is to provide a cost of living indicator. In making changes to the CPI in general, and the health component in particular, Stats SA has attempted to ensure that reported inflation accurately represents the price changes as experienced by South African consumers. Health pricing issues are a topic of public debate and it is important

that there exists an independent and reliable measure of price changes. Informal feedback from analysts indicates that the 'new' CPI, and the health component better reflects price changes experienced by consumers than was previously the case.