



Australian Government  

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Australian Institute of  
Health and Welfare

*Authoritative information and statistics  
to promote better health and wellbeing*

Ms Christine McDonald  
Committee Secretary  
Senate Finance and Public Administration References Committee  
PO Box 6100  
Parliament House  
Canberra ACT 2600  
Australia

Dear Ms McDonald

**Inquiry into the implementation of the National Health Reform Agreement**

I am pleased to provide the attached response to the Inquiry as requested in relation to the total health price index.

The AIHW is a major national agency established under the *Australian Institute of Health and Welfare Act 1987* as an independent statutory body to provide reliable, regular and relevant information and statistics on Australia's health and welfare. We are committed to providing high quality national data and analysis across the health, housing, and community services sectors, presented in meaningful and relevant ways and delivered in a timely manner. We trust our submission will be of assistance.

Yours sincerely

David Kalisch  
Director

18 February 2013

# Total health price index

## What is the total health price index?

The Australian Institute of Health and Welfare (AIHW) produces the total health price index (THPI) annually. The index is published in the AIHW's *Health expenditure Australia*, fifteen months from the end of each financial year.

The THPI measures the amount of difference between the current price and constant price estimates of total expenditure for a particular year. Current price refers to the actual expenditure. The constant price has been adjusted to account for the effect of price increases (inflation) between that year and a reference year (in this case the most recent year in the time series is used). The comparison between the current and constant price indicates the amount that prices have increased between that year and the reference year. Growth in the THPI from year to year is used to measure the rate that prices increased between years.

The AIHW transparently reports on how the THPI is constructed and its component parts in the annual *Health expenditure Australia* publication. This material is predominantly drawn from Appendix C of *Health expenditure Australia 2010-11* released by the AIHW in September 2012.

## How is THPI growth calculated?

The THPI is calculated using 14 areas of health expenditure. The THPI is constructed for each year in a series using the following method:

- for each area of health expenditure an appropriate deflator is selected. Table 1 shows the areas of expenditure and deflators used.
- the deflator is used to convert the expenditure for that area of expenditure into constant prices. This is done for the 10 years prior to the reference year (which is the most recent year).
- all the areas of expenditure are summed for each year to obtain estimates of total health expenditure in constant prices.
- the ratio between the total current and total constant price expenditure estimates is then calculated and multiplied by 100 to derive the THPI (the reference year has an index of 100).

Growth in the THPI is the difference between the THPIs for the relevant years.

Because of the way it is derived, the THPI is automatically weighted in accord with the expenditure composition of total health expenditure. For example, public hospital services accounted for 29.9% of total health expenditure in 2010-11 and, thus, public hospital services accounted for the same proportion of the THPI calculation. Table 1 shows each area of health expenditure and the contribution of each component to the THPI.

The deflators used are selected to be specific to the type of expenditure they are applied to. For example, for hospitals, the government final consumption expenditure (GFCE) hospitals and nursing homes deflator is used. The Australian Bureau of Statistics (ABS) provides the deflators used for expenditure on hospitals, patient transport, community health, chemist goods, and capital expenditure. The AIHW derives deflators for the other areas of

expenditure from data in the AIHW Health Expenditure Database. Table 2 shows the deflators used and the contribution of each to the THPI.

Table 3 shows the annual rates of change in the THPI and industry-wide indices.

## **Use of the THPI**

While the AIHW calculates the THPI, it is not involved in the use of the THPI by Treasury in the calculation of payments. We understand that Treasury uses a five-year rolling average of the THPI in its calculation, to smooth out any year-to-year volatility.

## **Recent trends in the THPI**

Growth in the THPI in 2010-11 (the most recent year for which data is available) shows low inflation across many areas of the health sector, with the growth rate lower than it has been for a decade. Playing a significant role in the low THPI growth was the GFCE hospitals and nursing homes deflator, provided by the ABS. The AIHW does not have access to detailed information on the contributing factors that led to the low inflation in this area. However, advice from the ABS suggests that there were significant falls (up to 20 per cent) in the price of medical and surgical equipment purchased by governments as well as consumers. This may have arisen from a high Australian dollar exerting downward pressure on the prices of foreign-manufactured medical goods.

**Table 1: Components of health expenditure, deflator used and contribution to the THPI, 2010-11**

| Component of expenditure        | Deflator                                    | Total expenditure (\$m) | Share of total THPI (%) |
|---------------------------------|---|-------------------------|-------------------------|
| Public hospital services        | GFCE hospitals and nursing homes            | 38,937                  | 29.9                    |
| Private hospitals               | GFCE hospitals and nursing homes            | 10,768                  | 8.3                     |
| Patient transport services      | GFCE hospitals and nursing homes            | 2,785                   | 2.1                     |
| Medical services                | Medicare medical services fee charged       | 22,525                  | 17.3                    |
| Dental services                 | Dental services                             | 7,857                   | 6.0                     |
| Other health practitioners      | Other health practitioners                  | 4,103                   | 3.1                     |
| Community health and other      | Professional health workers wage rate index | 6,295                   | 4.8                     |
| Public health                   | GFCE hospitals and nursing homes            | 1,947                   | 1.5                     |
| Benefit paid pharmaceuticals    | PBS pharmaceuticals                         | 9,775                   | 7.5                     |
| All other medications           | HFCE on chemist goods <sup>(a)</sup>        | 8,650                   | 6.6                     |
| Aids and appliances             | Aids and appliances                         | 3,632                   | 2.8                     |
| Administration                  | Professional health workers wage rate index | 2,051                   | 1.6                     |
| Research                        | Professional health workers wage rate index | 4,331                   | 3.3                     |
| Capital expenditure             | Gross fixed capital formation               | 6,610                   | 5.1                     |
| <b>Total health expenditure</b> |   | <b>130,266</b>          | <b>100</b>              |

(a) HFCE is Household final consumption expenditure

**Table 2: Deflators and contribution to the THPI, 2010-11**

| Deflator                                    | Total expenditure (\$m) | Share of THPI (%) |
|---|-------------------------|-------------------|
| GFCE hospitals and nursing homes            | 54,437                  | 41.8              |
| Medicare medical services fee charged       | 22,525                  | 17.3              |
| Dental services                             | 7,857                   | 6.0               |
| Other health practitioners                  | 4,103                   | 3.1               |
| Professional health workers wage rate index | 12,677                  | 9.7               |
| PBS pharmaceuticals                         | 9,775                   | 7.5               |
| HFCE on chemist goods <sup>(a)</sup>        | 8,650                   | 6.6               |
| Aids and appliances                         | 3,632                   | 2.8               |
| Gross fixed capital formation               | 6,610                   | 5.1               |
| <b>Total health expenditure</b>             | <b>130,266</b>          | <b>100.0</b>      |

(a) HFCE is Household final consumption expenditure.

**Table 3: Annual rates of change in the THPI and industry-wide indices, 2000-01 to 2010-11 (per cent)**

| Index  | 2000-01       | 2001-02       | 2002-03       | 2003-04       | 2004-05       | 2005-06       | 2006-07       | 2007-08       | 2008-09       | 2009-10       |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
|  | to<br>2001-02 | to<br>2002-03 | to<br>2003-04 | to<br>2004-05 | to<br>2005-06 | to<br>2006-07 | to<br>2007-08 | to<br>2008-09 | to<br>2009-10 | to<br>2010-11 |
| Total health price index <sup>(a)</sup>  | 2.8           | 3.8           | 3.2           | 3.7           | 4.0           | 3.5           | 2.3           | 2.3           | 2.4           | 0.9           |
| Government final consumption expenditure on hospitals and nursing homes <sup>(c)</sup> | 2.8           | 2.8           | 3.6           | 2.7           | 4.4           | 4.1           | 3.0           | 3.2           | 3.7           | 1.4           |
| Medicare medical services fees charged <sup>(b)</sup>                                  | 5.8           | 5.4           | 5.3           | 7.8           | 5.6           | 3.1           | 2.7           | 1.5           | 2.4           | 1.5           |
| Dental services <sup>(a)</sup>   | 2.7           | 14.1          | 4.3           | 6.4           | 4.1           | 5.5           | 4.0           | 3.5           | 2.5           | 0.9           |
| Other health practitioners <sup>(a)</sup>  | 7.1           | 6.0           | 2.3           | 2.9           | 4.8           | 2.0           | -0.1          | 4.2           | 2.6           | 3.2           |
| Professional health workers wage rates <sup>(c)</sup>                                  | 3.3           | 3.4           | 4.8           | 3.5           | 4.5           | 4.6           | 3.7           | 3.8           | 4.1           | 3.6           |
| PBS pharmaceuticals <sup>(a)</sup>   | 0.1           | 0.1           | 0.1           | 0.1           | 0.2           | 0.2           | 0.2           | 0.5           | 0.2           | 0.3           |
| HFCE <sup>(d)</sup> on chemist goods <sup>(c)</sup>                                    | -2.0          | 0.5           | -1.4          | 1.0           | 1.3           | 2.3           | 0.6           | -1.4          | -0.3          | 0.4           |
| Aids and appliances <sup>(a)</sup>   | -2.0          | 2.4           | 6.9           | 2.6           | 2.7           | 2.1           | 2.8           | -1.7          | -4.8          | -5.6          |
| Australian Government gross fixed capital formation <sup>(c)</sup>                     | -1.0          | -1.9          | -1.6          | 1.9           | 0.7           | 1.6           | -0.1          | 2.2           | -0.8          | 0.2           |
| State, territory and local government gross fixed capital formation <sup>(c)</sup>     | -0.6          | 0.8           | 0.8           | 2.7           | 3.0           | 3.3           | 2.4           | 3.9           | -2.0          | 0.5           |
| Private gross fixed capital formation <sup>(c)</sup>                                   | 4.8           | 1.4           | 1.0           | 1.6           | 3.0           | 2.2           | 5.0           | 2.4           | -0.6          | 0.3           |
| Gross national expenditure <sup>(c)</sup>  | 2.5           | 2.3           | 1.3           | 2.1           | 2.9           | 3.4           | 3.4           | 3.4           | 1.8           | 2.0           |

(a) Implicit Price Deflator constructed by AIHW.

(b) Chain price index constructed by the AIHW.

(c) Deflator provided by ABS.

(d) HFCE is Household final consumption expenditure.