It is a year since the Prime Minister revealed during a Sunday morning TV interview that he intended to raise total health care spending (by increasing public spending) to match the average proportion of GDP spent in the rest of the European Union.

Most commentators agreed that Tony Blair’s calculations of the overall EU share spent on health care were just ‘plain wrong’. Moreover, the financial feasibility of setting such a target had not been thought through, nor, indeed, had the sense in setting such a target in the first place. With new data from the OECD, it is clear that over the next few years UK spending on health care will remain significantly below the average of other European Union countries.

At the Health Committee, Milburn confirmed that the Government’s choice of target for EU average spend was the arithmetic mean. In other words, the percentage health care spends in each EU country were simply summed and divided by the number of EU countries (15, including the UK). That is, for the mathematically inclined:

$$\frac{1}{15} \times \sum_{i=1}^{15} \left( \frac{h_i}{g_i} \right) \times 100$$

Where $h_i$ = total spending on health care for country $i$, and $g_i$ = total GDP, both measured in US$ purchasing power parities.
For 1998, this gives an arithmetic average of 7.99 per cent for the average spend on health care for all EU countries, or 8.08 per cent if the UK is excluded. But the implication of this calculation is that equal weight is given to each country in the EU regardless of size of population or wealth. While there is no mathematical justification for this, there may be a political justification in as much that EU member states are treated equally in most spheres of EU life.

The question is, however, whether such an egalitarian view of the politics and practices of the EU should, in the case of statistics about average percentage health care spend, override the straightforward mathematics of calculating an average.

If a health care spending target based on the average spend of our European neighbours is felt to be the right aspirational goal, then it would be better to leave to one side the machinations of European politics and calculate an average which, treating the EU as one large country, corresponds to average spend per EU citizen. This would mean calculating a weighted average. A plausible weight would be GDP. Again, for the mathematically inclined:

\[
\left( \frac{\sum_{i=1}^{15} h_i}{\sum_{i=1}^{15} g_i} \right) \times 100
\]

Where \( h_i \) = total spending on health care for country \( i \), and \( g_i \) = total GDP both measured in US$ purchasing power parities.

For 1998, this calculation of the weighted average gives a figure of 8.66 per cent if the UK is included or 9.03 per cent if it is excluded – 0.67 per cent and 0.95 per cent higher respectively than the arithmetic means preferred by the Department of Health.

We would argue, as we have elsewhere, that this method of calculating the average makes more sense and does not require the somewhat convoluted political justification which seems to underlie Government thinking.

However, even if it is accepted that there are alternative and legitimate ways of counting the number of angels that can fit on a pin head, the Prime Minister's spending pledge raises a number of further issues:

- the comparability of OECD health spend and GDP figures collected and collated from individual countries
- how health care spending will change over the next few years (that is, where will the target be by the end of the next Parliament?)
- was the Prime Minister's suggested target the right one to choose in the first place?

**COMPARABILITY**

While the OECD has tried to ensure that the figures it compiles for its health database are comparable, there are known anomalies. We do not intend to delve too deeply into this here. Some of the issues that have received attention are: the inclusion of nursing home spending (the reported UK figure for total health
care spending does not include it, but a number of other EU countries do; the construction of appropriate indices of purchasing power parity (PPP); the treatment of taxation; and levels of informal care. Other differences may also exist (including some that may affect the comparability of the GDP data set held by the OECD).

Without detailed investigation it is difficult to compensate for such data problems. However, the probability that the figures are not wholly comparable needs to be borne in mind (although we suspect that these problems are unlikely to overturn the analysis and conclusions below).

**FUTURE HEALTH CARE SPENDING**

However the average EU spend is calculated, it is certainly not a static target. Figure 1 – based on the latest OECD health data set for 2000 – shows the inexorable rising share of national wealth consumed by health care in the EU and the UK since the 1960s.

The figure shows two lines for the average EU health care spend – one based on the Department’s preferred measure of the arithmetic mean, and the other based on a weighted average. Linear time trend projections* for both averages have been made to 2006.

UK spending figures for the years 2000–03 are based on the Government’s actual spending plans for the NHS plus private spending (estimated to be a constant 1.1 per cent of GDP for each year). UK spending for the years 2004–06 are estimates based on the average annual real terms increase in NHS spending over

* A linear trend fits the EU data well. Some non-linear estimates were tried but offered little extra explanatory power.
the years 1999–2003 (i.e. 6.1 per cent), again with the addition of private spending of 1.1 per cent of GDP. The GDP figures for the UK for the years 1999–2006 are based on Treasury data and forecasts.5

The chart is interesting for a number of reasons. The most obvious is the gap between the UK and the rest of the EU in terms of average proportion of GDP spent on health care.

While Blair suggested that New Labour’s aspiration was to close this gap, it is evident from projecting the EU average that, despite the extra billions promised in last year’s budget, the (moving) target will be missed.

In terms of the EU weighted average, by the putative end of the next Parliament in 2006, the UK will remain significantly below the rest of the EU – which, at nearly 11 per cent, is somewhat higher than the Government’s figure of 8 per cent. In fact the rest of the EU is already spending 9 per cent of its GDP on health care. At this rate the gap between us and the rest will only return to what it was in 1999.

AN ALTERNATIVE TARGET?

The Government has got itself into a muddle over targets for health care spending – a confusion it could easily have avoided and which was, especially given the scale of additional money for the NHS, unnecessary. But we have been here before. Labour’s 1997 manifesto pledge card promised to reduce the number of people waiting for surgery by 100,000. Although they will almost certainly deliver on this, many pointed out at the time6 that this was the wrong waiting-list target to set; waiting time was more important, a view the Government has belatedly recognised in the NHS Plan.

There are of course good reasons for governments to set targets: they communicate intent and aspiration to the electorate; they provide a benchmark for measuring improvement; and they can help close the tax-and-spend loop by showing how taxpayers’ money is being used. But there are also dangers with this approach. Among the political dangers is the setting of a target that will not be achieved.

If some fix on what we ought to be spending on health care is desired, then we would suggest that taking the EU average spend as a proportion of GDP (whether arithmetic or weighted mean) as a benchmark is too simplistic. Such a target fails to take account of how health care spending tends to change as GDP changes and also what the UK might realistically expect to spend given its wealth.

As Table 1 shows, in terms of wealth, the UK economy was the second largest in the EU in absolute terms (in 1998). However, we are not so rich in terms of GDP per head, ranking 10th out of 15. Striving to reach the spending levels of France and Germany may be inappropriate given our current wealth. In fact, there is a strong relationship between health care spending per head and the level of GDP per head. In general, as countries get richer they tend to spend proportionately more of their extra wealth on health care.

So, if we really want to compare ourselves with our EU neighbours (and in the case of health care spending this is perhaps debatable), then a more pertinent comparison should take account of what
Table 1: Total GDP and GDP per capita, EU countries 1998, US$PPP (purchasing power parities)

<table>
<thead>
<tr>
<th>Country</th>
<th>Total GDP US$PPP</th>
<th>Rank</th>
<th>Country</th>
<th>Per capita GDP US$PPP</th>
<th>Rank</th>
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</table>

Figure 2: Projected health care spending per head and GDP per head, EU countries, 2006
we as a nation can afford to spend on health care.

Using linear projections of GDP and health spend per head (based again on OECD data) for the years 1960–99 to project GDP and health care spend per head to 2006 allows the relationship between these two factors in 2006 for all EU countries to be estimated (see Figure 2). The statistical relationship suggests that around 74 per cent in the variation in per-capita health care spending is explained by variations in GDP per capita, and that a 10 per cent rise in GDP per head leads to a rise in health care spending per head of 9.5 per cent.

From Figure 2, it is clear that given the UK's estimated GDP per head in 2006, its estimated actual spending will be around 19 per cent lower than could be expected. Put another way, the projected actual spending on health care as a proportion of GDP is 7.94 per cent in 2006, while the expected level – given the UK's per capita wealth – is 9.5 per cent. Compared with the projected EU average spend on health care by 2006 of nearly 11 per cent (see Figure 1), this alternative target – based on what we expect the UK to be able to afford to spend on health care – does not seem so daunting.

The estimates and projections used to arrive at this alternative target are of course subject to uncertainty. We cannot be sure that future EU spending will exactly follow the course we have predicted. Nor can we be absolutely sure of other variables used, such as the level of GDP in the future. Moreover, international comparisons of the relationship between GDP per head and health care spending per head need to be treated carefully. Nevertheless, our approach to setting a global spending target for health care is less arbitrary and, we would argue, more supportable than the EU average spend, however calculated.

Finally, the key consideration for government is how the extra money allocated to health care would be spent. This requires a more detailed consideration of the breakdown of the UK spend, both the distribution between different health sectors (e.g. cancer care or dentistry), and changes in the quantity of care, quality of care and rewards to those doctors, nurses and others who look after our health.

REFERENCES