

# Monitoring Review

Monitoring Review 3/2013

19 June 2013

## ***Real Terms Estimates for Health Expenditure in England over the Spending Review Period, 2010-11 to 2014-15***

1. This Review expands on the evidence on which the Statistics Authority drew in December 2012 in correspondence<sup>1</sup> with the Secretary of State for Health and others about whether NHS spending in real-terms was increasing or falling over the previous two years (see Annex A).
2. On the basis of the analysis outlined here, we concluded that expenditure on the NHS in England in real terms was lower in 2011-12 than it was in 2009-10 (-0.7%) when presented on the same basis as for the UK Budget derived from the latest available Public Expenditure Statistical Analyses (PESA) publication.

### **Findings**

3. HM Treasury publishes annual estimates of NHS expenditure in England in nominal and real terms in the National Statistics publication *Public Expenditure Statistical Analyses (PESA)*. This was used as the definitive source of information for this review.
4. The estimates of real terms health expenditure may, however, be periodically revised between publications of *PESA* as the underlying data are revised. A revision to the GDP deflator, for example, can result in a significant change in the level of each annual estimate and can change the direction of the growth rate from one year to the next. The UK deflators are updated each quarter following the publication of the UK Quarterly National Accounts, and the Health outturn data are also updated quarterly in the statistical bulletin, *Public Spending Statistics*. The published real-terms health expenditure estimates are not updated on a quarterly basis.
5. The commonly used estimates of health expenditure in England, from *PESA*, include data for the Food Standards Agency (FSA) which is a UK-wide organisation rather than an England-only one. To ensure consistency with the definition of NHS (Health) used in the UK Budget, the FSA data are best removed in an analysis of this type. More generally, NHS expenditure trend figures often quoted relate to England only, but commonly appear without making this geographic distinction clear. A frequently used statistic, NHS expenditure as a proportion of GDP, is actually NHS expenditure in England as a proportion of GDP for the whole of the UK. When analysing the direction of very small year on year changes, these effects can be important.

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<sup>1</sup> <http://www.statisticsauthority.gov.uk/reports---correspondence/correspondence/letter-from-andrew-dilnot-to-rt-hon-andy-burnham-mp-04122012.pdf>

6. For future analysis of this type the UK Statistics Authority concludes that:
- i. The annual PESA estimates of real-terms NHS expenditure should be used as the definitive estimates. Partial updates of these estimates should be used with caution, and producers should explain fully to users the assumptions made and the source data used.
  - ii. The Food Standards Agency should be grouped under small and independent bodies in PESA to ensure consistency with the Spending Review document. We understand that HM Treasury is planning to do this from summer 2013 onwards.
  - iii. Producers of these data should take steps to make users more aware of the geographical inconsistencies in their presentation.

## Evidence and Analysis

7. This analysis demonstrates how planned expenditure on the NHS in England compares with the outturn figures quoted in subsequent PESA publications. It discusses expenditure in both real and nominal terms. It demonstrates how sensitive these estimates are to regular revisions and offers further clarity on definitions, especially relating to geographical issues.
8. The analysis in this note is based on figures in *Spending Review 2010* (SR 2010) and in *Public Expenditure Statistical Analyses* (PESA) Command papers for 2011<sup>2</sup> and 2012<sup>3</sup> rather than the National Statistics releases that HM Treasury produces on public spending. The National Statistics releases only present outturn estimates for expenditure whereas the PESA Command papers present outturn estimates for past years as well as expenditure plans for future years.
9. Some aspects of the way in which expenditure estimates are presented in SR 2010, and in the PESA Command papers, present problems for analysis of the kind we have undertaken. Although these are not National Statistics publications<sup>4</sup> there may nonetheless be scope to address some of these points for the future; the most substantive issues are set out in Annex B.

### Spending Review 2010

10. Table 1 shows the NHS spending proposals in England that were presented in *Spending Review 2010*<sup>5</sup>:

**Table 1: Spending Review 2010 Planned Expenditure on NHS (Health) in England**      **£ billion**

	2010-11	2011-12	2012-13	2013-14	2014-15
Resource DEL excluding depreciation	98.7	101.5	104.0	106.9	109.8
Capital DEL	5.1	4.4	4.4	4.4	4.6
<b>Total DEL</b>	<b>103.8</b>	<b>105.9</b>	<b>108.4</b>	<b>111.4</b>	<b>114.4</b>

<sup>2</sup> [http://www.hm-treasury.gov.uk/pespub\\_pesap11.htm](http://www.hm-treasury.gov.uk/pespub_pesap11.htm)

<sup>3</sup> [http://www.hm-treasury.gov.uk/pespub\\_pesap12.htm](http://www.hm-treasury.gov.uk/pespub_pesap12.htm)

<sup>4</sup> The outturn estimates are National Statistics, whereas the planned expenditure estimates are not.

<sup>5</sup> [http://www.hm-treasury.gov.uk/spend\\_sr2010\\_documents.htm](http://www.hm-treasury.gov.uk/spend_sr2010_documents.htm)

11. That document states: ‘The settlement increases overall NHS funding in real terms every year, with a total increase of 0.4 per cent in real terms over the Spending Review period – meeting the Government’s commitment on health spending’.
12. However, SR 2010 did not itself present any detailed information about planned expenditure on health in real terms. Nor does there appear to be any published information about the inflation assumptions that were used to convert planned nominal expenditure on health to real terms expenditure, which would have explained the basis for the above statement. As far as we can tell, the most up-to-date, published official projections for the GDP deflator<sup>6</sup> at the time of the Spending Review 2010 announcements were published in June 2010 as part of *Budget 2010*<sup>7</sup>. Table 2 below uses these projections to convert the Spending Review plans for health expenditure from nominal to real terms.
13. Table 2 shows expenditure on health rising in real terms for each year of the spending review period, apart from the final year, 2014-15. It also shows cumulative growth of 0.3 per cent over the whole spending review period. These estimates do not quite match the specific plans described in SR 2010 for real increases in total expenditure, but they are close<sup>8</sup>. We assume that the (unpublished) projections for GDP deflator growth used at the time of SR2010 were slightly different from those published in the 2010 Budget.

**Table 2: Planned Expenditure on NHS (Health) in real terms; Spending Review 2010**

	2010-11	2011-12	2012-13	2013-14	2014-15
Total DEL (nominal) £bns	103.8	105.9	108.4	111.4	114.4
Year-on year growth in expenditure (nominal terms)		2.0%	2.4%	2.8%	2.7%
Projected growth in GDP deflator in June 2010 (Budget 2010)	2.9%	1.9%	2.3%	2.6%	2.7%
Implied GDP deflator (2010-11=100)	100.000	101.900	104.244	106.954	109.842
Real terms expenditure on health (2010-11 prices) £bns	103.8	103.9	104.0	104.2	104.1
Year-on year growth in expenditure (real terms)		0.1%	0.1%	0.2%	0.0%
Cumulative growth in expenditure from 2010-11 (real terms)		0.1%	0.2%	0.3%	0.3%

### Health Expenditure Outturn Statistics

14. Annual outturn estimates are provided in the HM Treasury PESA publications. To ensure consistency with the Spending Review estimates, the estimates used in this section of the review *exclude* expenditure by the Food Standards Agency, on the advice of HM Treasury.
15. Table 3 shows the SR 2010 spending plans for health in real terms (2010-11 prices), alongside more recent information on outturn and planned expenditure published in PESA 2011 and

<sup>6</sup> The GDP deflator is the measure of inflation that HM Treasury uses to convert expenditure from nominal to real terms

<sup>7</sup> [http://www.hm-treasury.gov.uk/junebudget\\_documents.htm](http://www.hm-treasury.gov.uk/junebudget_documents.htm)

<sup>8</sup> Projected growth in the GDP deflator for 2014-15 would only need to change from 2.7 per cent to 2.6 per cent to match those plans (ie a real terms increase in health expenditure each year, and cumulative growth of 0.4 per cent over the spending review period). Having access to un-rounded growth rates might resolve these differences.

PESA 2012<sup>9</sup>. The table includes the PESA 2011 and PESA 2012 estimates of outturn expenditure on health in England in 2009-10, the year prior to the start of the current spending review period. According to the PESA 2012 estimates, outturn expenditure on health was £2.0 billion lower in 2010-11 than the level of expenditure that had been planned in SR 2010, and £2.1 billion lower in 2011-12 than planned in SR2010.

**Table 3: Estimates of real terms expenditure on Health in England to 2014-15 (2010-11 prices) £ billions**

	2009-10	Spending Review Period				
		2010-11	2011-12	2012-13	2013-14	2014-15
Spending Review 2010		103.8	103.9	104.0	104.2	104.1
PESA 2011	102.7	101.9	103.0	102.8	102.8	102.9
Change on SR 2010		-1.9	-1.0	-1.2	-1.3	-1.3
PESA 2012 <sup>1</sup>	102.5	101.8	101.8	103.5	103.3	103.6
Change on SR 2010		-2.0	-2.1	-0.5	-0.8	-0.6

Shaded figures are outturn estimates; other figures are planned expenditure

<sup>1</sup>PESA 2012 estimates have been converted to 2010-11 prices using the GDP deflators published at the time of the 2012 publication; this allows PESA 2011 and PESA 2012 to be compared in real terms on the same basis.

16. Table 4 presents successive estimates of year on year percentage growth in real terms expenditure on health from 2010-11 to 2014-15.

**Table 4: Estimates of annual percentage growth in real terms expenditure on Health in England to 2014-15**

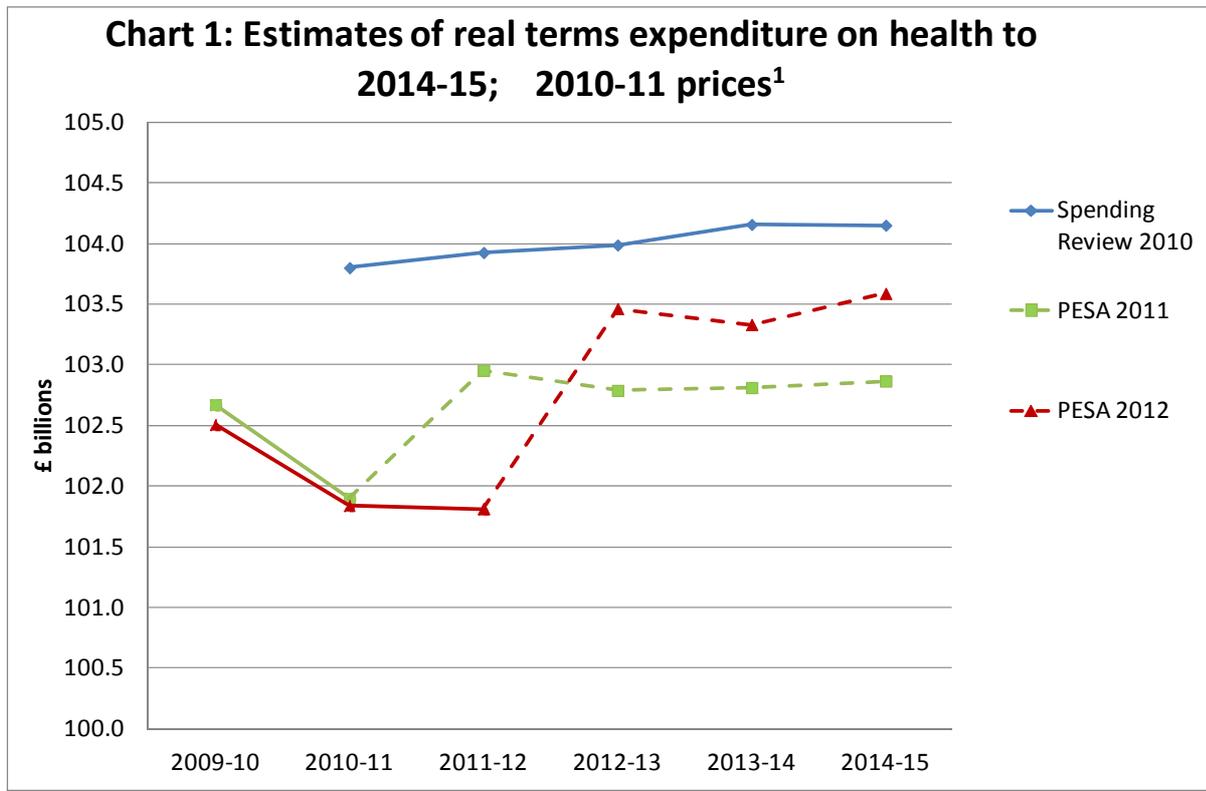
	2010-11	2011-12	2012-13	2013-14	2014-15
Spending Review 2010		0.1%	0.1%	0.2%	0.0%
Cumulative growth from 2010-11		0.1%	0.2%	0.3%	0.3%
PESA 2011	-0.7%	1.0%	-0.2%	0.0%	0.1%
Cumulative growth from 2010-11		1.0%	0.9%	0.9%	0.9%
PESA 2012	-0.7%	0.0%	1.6%	-0.1%	0.2%
Cumulative growth from 2010-11		0.0%	1.6%	1.5%	1.7%

17. Tables 3 and 4 above show how plans for health expenditure in England have changed in more recent statements. The main differences are as follows:

- i. In 2010-11, less was spent on health than had been planned. Outturn in 2010-11 was £2.0 billion below the level planned in the 2010 Spending Review.
- ii. In the following year, 2011-12, there was almost no change in outturn expenditure in real terms - it was down 0.02 per cent.
- iii. However, inflation in 2011-12 (as measured by the GDP deflator) was *higher* than originally expected, and in consequence the real terms change in health expenditure compared with the previous year was *lower* than originally expected. If inflation had been as forecast in SR 2010, then expenditure on health would have increased in real terms.
- iv. According to the latest PESA 2012 estimates, real terms health expenditure is expected to increase by 1.7 per cent over the spending review period. But because real terms expenditure in 2010-11 was lower than expected, expenditure in 2014-15 is still expected to be slightly lower than *planned* expenditure for 2010-11 (expressed here in 2010-11 prices).

<sup>9</sup> The published estimates for PESA 2012 have been converted from 2011-12 prices to 2010-11 prices for comparability, although this has produced some minor discrepancies in the estimates for later years.

18. Chart 1 below illustrates the information presented in Tables 3 and 4.



<sup>1</sup> Solid lines are outturn estimates, dashed lines are planned expenditure

### Statistical Issues

19. The PESA publication, considered to be the best source of data for this analysis as it provides information on the same basis as used in the Budget Statement, is only annual. However, some of the source data are updated more frequently: health expenditure is reported quarterly; and the GDP deflators are updated quarterly in line with the quarterly national accounts publication, whilst the GDP deflator forecasts are updated by OBR bi-annually at the time of the Budget and Pre-Budget Report. It is difficult, therefore, to reconcile different analyses carried out at different times without knowing what data are used, especially as not all datasets are preserved publically.

20. The main issues are:
- i. Definition of the NHS in England
  - ii. Changes to inflation forecasts
  - iii. Presentation of data relating to England rather than the UK

### *Definition of NHS in England*

21. There are two Spending Frameworks used in HM Treasury spending publications. The **Budgeting** framework provides information on central government departmental budgets, which are aggregates used by the Government to plan and control expenditure. It covers departmental own spending as well as support to local government and public corporations. The **Expenditure on services** framework is used in Treasury publications for statistical analysis. It is based on National Accounts definitions and covers spending by the whole of the

public sector. It therefore has wider coverage than the budgeting framework and is more stable over time.

22. The annual PESA publication provides both outturn and forecast expenditure estimates on both bases and the quarterly Public Spending Statistics statistical bulletin provides outturn data on the budget basis but without any updated forecasts.
23. There are also two different Budgeting breakdowns in PESA. In the budgeting tables based on ministerial responsibilities (see tables 1.8 and 1.9 in PESA 2012), the definition 'NHS(Health)' covers NHS spending in England including the Food Standards Agency (FSA) which has UK-wide responsibilities. The Budgeting definition based on Spending Review groups (see tables 1.12 – 1.14 in PESA 2012) just relates to NHS spending in England and excludes the FSA.
24. Commentators have used both Budgeting definitions inter-changeably which has led to some confusion. The figures quoted by Mr Burnham to Mr Dilnot on 1 November 2012 were taken from table 1.8 in PESA, therefore used the ministerial responsibility definition.
25. The UK Statistics Authority concludes that expert commentators should, where possible, use the Budgeting Spending Review definitions for analyses of this type. We understand that HM Treasury is planning that from summer 2013 it will only show the breakdown consistent with the most recent Spending Review in its spending statistics. HM Treasury will also provide data on the ministerial responsibility basis on request to users who need the old breakdown.

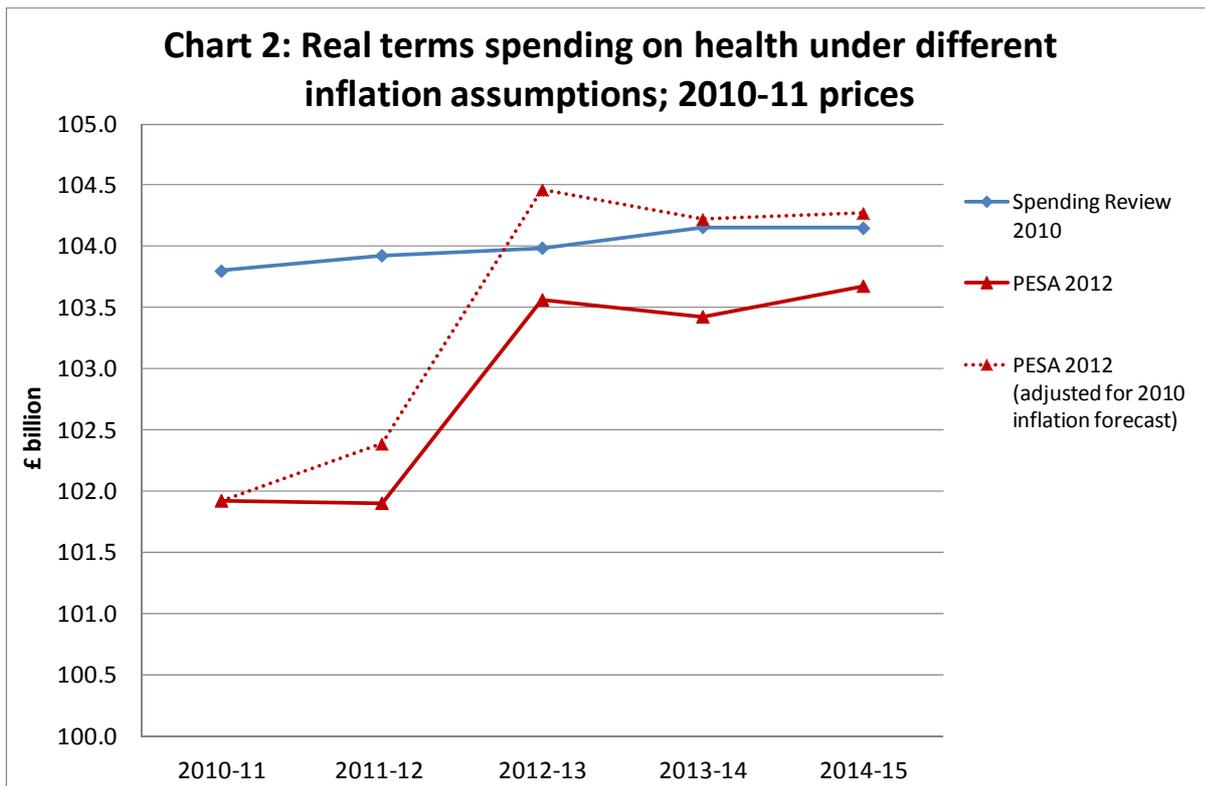
#### *Changes to inflation forecasts*

26. Table 5 below shows the different official projections for the GDP deflator made in 2010, 2011 and 2012. The latest outturn estimate for inflation in 2010-11 is slightly lower than the Budget 2010 projection. Outturn inflation in 2011-12 was 0.5 percentage points higher than had been expected in SR 2010. This means that higher than expected inflation did contribute to real terms expenditure for that year being lower than had been planned in SR 2010; and may explain why real expenditure on health did not rise, in real terms, between 2010-11 and 2011-12, as planned in SR 2010. This is illustrated in chart 2, which shows the latest PESA 2012 estimates in real terms, based on the Budget 2010 assumptions about inflation, as measured by the GDP deflator at that time.

**Table 5: Evolving projections for GDP deflator inflation over the spending review period**

		2010-11	2011-12	2012-13	2013-14	2014-15
Year on year growth	Budget 2010	2.9%	1.9%	2.3%	2.6%	2.7%
	PESA 2011	3.0%	2.9%	2.5%	2.7%	2.7%
	PESA 2012	2.8%	2.4%	2.7%	2.5%	2.5%
Cumulative growth from 2010-11	Budget 2010		1.9%	4.2%	7.0%	9.8%
	PESA 2011		2.9%	5.5%	8.3%	11.2%
	PESA 2012		2.4%	5.1%	7.8%	10.5%

Shaded figures are outturn estimates; other figures are projections



27. Updating the published data for real-terms health expenditure, when the underpinning components are updated, can lead to a very different interpretation of the key underlying message. The real terms growth rate in Health is not just affected by the GDP deflators, it is also affected by the level of under-spending against the associated budgets (this is the same for all departments).
28. For example, the House of Commons library note (see link in footnote 3), provides a new interpretation. The NHS expenditure is taken from table 1.8 in PESA (including FSA) but the GDP deflator forecast has been updated to be consistent with that published in the March 2013 budget. This leads to a different interpretation with real health expenditure increasing by 0.3 per cent between 2010-11 and 2011-12 and by 3.1 per cent between 2012-13 and 2013-14.

*Presentation of data relating to England rather than to the UK*

29. Commentators frequently quote NHS spending statistics without referring to their geographic basis. Responsibility for the NHS in Scotland, Wales and Northern Ireland is a devolved issue. Therefore it is important to specify that messages extracted from the data relate to England only, and that there may be a significantly different message if data for the UK as a whole were analysed.
30. The examples (from the footnotes) show many instances where figures are quoted and statements made without any reference to geography.

## Annex A: Summary of correspondence about real terms health expenditure

1. The Rt. Hon Andy Burnham MP, Shadow Secretary of State for Health, wrote to Andrew Dilnot on 1 November 2012 expressing concern that statements made by the Prime Minister and Health Minister to Parliament were inconsistent with the underlying statistics about spending published by HM Treasury<sup>10</sup>, a Department of Health (DH) press release<sup>11</sup> and a House of Commons Library note<sup>12</sup>. He considered there had not been an increase in health spending in real terms, as reported by the Prime Minister and the Health Minister. He also referred to a commitment in the Coalition Agreement<sup>13</sup> to increase health spending in real terms, which he considered had not been met. He asked Andrew Dilnot to help in bringing clarity to the situation and for a recommendation on how to ensure that in future the debate on NHS spending could be accurate and reflect the facts.
2. In his letter to Andrew Dilnot, Mr Burnham quoted statements which he believed were inconsistent with the statistics published in *Public Expenditure Statistical Analyses 2012*, produced by HM Treasury:
  - a. the following section of the Coalition Agreement: 'We will guarantee that health spending increases in real terms in each year of the Parliament'.
  - b. the following statement by the Prime Minister in the House of Commons on 27 April 2011<sup>14</sup>: 'The fact is, however, that at the last election only one party said that it would increase the NHS in real terms, and that is exactly what we are doing'. He also quoted a later statement by the Prime Minister in the House of Commons on 13 June 2012<sup>15</sup>: 'It is certainly not because the money in the NHS is being cut, because it is not being cut. The money in the NHS is being increased.'
  - c. the following statement made by the Health Secretary, Jeremy Hunt, in the House of Commons on 23 October 2012<sup>16</sup>: 'Real-terms spending on the NHS has increased across the country'. He also quoted comments made by Mr Hunt on BBC Daily Politics on 9 October 2012: 'In real terms NHS spending is going up.... it is incredibly significant that in real terms this government has made a big, big choice to protect the NHS budget'.
  - d. and further quoted the Conservative Party website<sup>17</sup>: 'We have increased the NHS budget in real terms in each of the last two years'.
3. Mr Burnham included figures in his letter which had been taken from the National Statistics release *Public Expenditure Statistical Analyses 2012*. In particular, he used figures presented in Table 1.8 'Total Departmental Expenditure Limits, 2007-08 to 2011-12' and Table 1.9 'Total Departmental Expenditure Limits in real terms'.

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<sup>10</sup> [http://www.hm-treasury.gov.uk/pespub\\_natstats\\_july2012.htm](http://www.hm-treasury.gov.uk/pespub_natstats_july2012.htm)

<sup>11</sup> <http://mediacentre.dh.gov.uk/2012/07/06/almost-3-5-billion-spending-increase-on-front-line-services/>

<sup>12</sup> <http://parliament.uk/briefing-papers/SN02640>

<sup>13</sup> <http://cabinetoffice.gov.uk/news/coalition-documents>

<sup>14</sup> <http://www.publications.parliament.uk/pa/cm201011/cmhansrd/cm110427/debtext/110427-0001.htm>

<sup>15</sup> <http://www.publications.parliament.uk/pa/cm201213/cmhansrd/cm120613/debindx/120613-x.htm>

<sup>16</sup> <http://www.publications.parliament.uk/pa/cm201213/cmhansrd/cm121023/debindx/121023-x.htm>

<sup>17</sup> [http://conservatives.com/Policy/where\\_we\\_stand/health.aspx](http://conservatives.com/Policy/where_we_stand/health.aspx)

## Annex B: UK Statistics Authority comments on the presentation of the planned and outturn expenditure estimates

1. Some aspects of the way in which expenditure estimates are presented in SR 2010 and in the PESA Command papers present problems for analysis of the kind we have undertaken. Although these are not National Statistics publications (although the outturn estimates are National Statistics, whereas the planned expenditure estimates are not), there may nonetheless be scope to address some of these points for the future:
  - a. SR 2010 states that expenditure on health is planned to increase in real terms every year. But it does not present any estimates in real terms, and does not provide GDP deflators that would allow this statement to be corroborated. **Historic GDP deflators and forecasts should be preserved on the web to allow users to carry out retrospective analysis.**
  - b. Chapter 3 of PESA presents some analysis of the changes from the previous PESA. It distinguishes between three types of change: machinery of government changes, changes due to reclassification or transfer of responsibility between departments, and changes that reflect policy decisions. This has proved difficult to follow, making it hard to estimate the extent to which lower outturn expenditure, compared with planned expenditure, is due to under-spending on the budget that was provided. **There is scope to provide additional information and explanation in chapter 3 of PESA to improve transparency.** The HMT PESA team has indicated a willingness to liaise with UKSA on future commentary.
  - c. The treatment of depreciation in Chapter 3 of PESA is sometimes confusing. It is *excluded* from total Departmental Expenditure Limits (DEL), but is *included* in departments' resource DEL budgets. The problem could be mitigated if, for example, depreciation was presented as a separate item or if resource DEL was routinely presented both including and excluding depreciation. HM Treasury has indicated that it intends to add a table showing RDEL excluding depreciation which will tie in with the presentation elsewhere in PESA.
  - d. More information could be provided on the GDP deflators that have been used. We have not been able to entirely reproduce the SR 2010 real terms estimates using the information that was published about deflators at the time. See suggestion in bullet a above. HMT has told UKSA that it currently only publishes the most recent deflator figures, but can provide a full audit trail if required.