

**PRESS RELEASE**

**26<sup>th</sup> February 2007**

## **How UK NHS expenditure and staffing has changed**

### **Rising UK birth rates and causes of increasing numbers of caesarean deliveries**

Today, at the launch of OHE's annual Compendium of Health Statistics in London, the Director Adrian Towse and colleagues discussed

- Increased NHS expenditure means that the proportion of UK national income spent on health care now nearly matches average European levels
- The UK NHS medicines bill as a per cent of total NHS expenditure, has declined from 12.7% in 1999 to 11% in 2005
- In 2004 the birth rate among mothers in their early 30s overtook the rate for mothers in their late 20's, and in 2005 birth rates in females aged 45 and over , were 50% higher compared to 2000
- In 2005 the caesarean section rate in the UK reached nearly one quarter of births in the NHS. Each caesarean costs the NHS twice as much as a normal delivery

#### **Increased NHS expenditure**

In the UK spending on health care as a percentage of GDP increased to 9.4% in 2006, bringing UK spending close to the average in Europe, as promised by Tony Blair in 2000. By 2006 overall UK health care spending, as a share of GDP, had increased by a third since 2000.

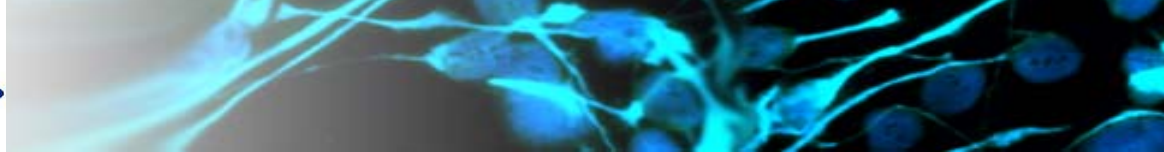
Table 1 below shows that between 2000 and 2004, the UK achieved the highest increase in health expenditure as a percentage of GDP, compared to its main European counterparts: France, Germany and Italy, and a growth rate three times higher than the average EU14 (= pre-2004 EU15 minus UK).

**Table 1 Comparative Health Expenditure as % of GDP**

<b>Country</b>	<b>Health expenditure as % GDP Yr 2000</b>	<b>Health expenditure as % GDP Yr 2004</b>	<b>% increase in health share of GDP between 2000 and 2004</b>
UK	7.1	8.6	21.4
France	9.2	10.6	14.9
Germany	10.3	10.6	2.5
Italy	8.1	8.7	7.5
EU14	8.9	9.6	7.6

#### **Changes in NHS staffing levels**

One effect of the increased health expenditure is a rise in the numbers of NHS doctors and nurses in the UK. Between 2000 and 2004, the number of doctors per 1,000 population rose from 1.9 to 2.3. As shown in Table 2, the growth rate in doctor numbers is higher than other European countries, but the UK still has little more than half the number of doctors per 1,000 population found in Italy, and around two-thirds of the numbers found in France and Germany.



**Table 2 Numbers of Doctors and Nurses per 1,000 Population, 2004**

	<b>Doctors</b>		<b>Nurses</b>	
<b>Country</b>	<b>Density /1000 population in 2000</b>	<b>Density /1000 population in 2004</b>	<b>Density / 1000 population in 2000</b>	<b>Density /1000 population in 2004</b>
UK	1.9	2.3	8.4	9.2
France	3.3	3.4	6.7	7.5
Germany	3.3	3.4	9.4	9.7
Italy	4.1	4.2	5.2	5.4(2003)

By contrast nursing levels in the UK are among the highest in Europe with an average of 9.3 nurses per 1,000 population in 2005. In 2004 Germany had one of the highest nursing levels with 9.7 nurses per 1,000 population whilst the UK had 9.2 and France 7.5.

The number of doctors employed per £1 spent on health care in the UK, is lower than in Germany, France and, especially, Italy. By contrast the UK employs more nurses per £1 spent on health care than in any of those three other European countries.

#### **The NHS medicines bill**

Whilst NHS expenditure overall continues to grow, the UK NHS medicines bill (hospital plus community, at manufacturers' prices) as a per cent of total NHS expenditure, has declined from 12.7% in 1999 to 11.0% in 2005.

Despite this decline, the volume of drug prescriptions dispensed each year continues to rise from 653 million in 1997 to 881 million in 2005. The average cost per item prescribed rose from £8.27 in 1997 to £11.13 in 2005 as newer, more expensive, medicines become available.

Also, over the last decade there has been a dramatic change in the percentage share of drugs dispensed across different therapeutic groups. The biggest increase is for cardiovascular prescriptions, rising from 119.7 million (19.4%) in 1997 to 264 million (30%) in 2005. The largest decline is for infections (eg antibiotics) from 62 million (10.1%) in 1997 to 52 million (5.9%) in 2005.

#### **Live birth rates continuing to rise**

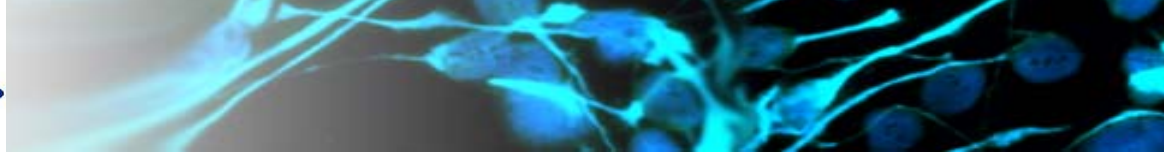
In 2002, 669,000 live births were recorded in the UK. An all time low since records began. Since then there has been an increasing trend in the number of births, reaching 722,500 in 2005.

However the Total Period Fertility Rate for 2005 is 1.79, which is the average number of children that would be born to a woman over her lifetime if she were to experience the age-specific fertility rates of that year throughout her childbearing years.. So even though the UK is now experiencing higher birth rates, this is still below replacement level, i.e. suggesting that unless fertility rates continue to rise, it is likely that in a few decades we might expect to see a decline in the UK population size.

#### **Live birth rates – age differences**

Although overall UK birth rates have risen since 2001, there has been a decline among women aged under 20 years, with approximately 26 births per 1,000 women in that age group in 2005 compared to over 30 births per 1,000 in 1998.

By contrast, birth rates among older mothers have risen and in 2004 the birth rate for mothers in their early 30s overtook the rate for mothers in their late 20's. The rise in birth rate is most marked for women aged 45 and over, with 50% extra live births per 1,000 women in that age group in 2005 compared to 2000.



### Caesarean section rates

There is evidence to suggest that older mothers are more likely to require caesarean section than younger mothers. The results of the National Sentinel Caesarean Section Audit in 2001 indicated that the percentage of babies born to mothers aged under 20 that were by caesarean section was 13.4% in 2000 in England and Wales, compared to 33.4% for mothers aged over 40. Additional evidence from 1994/95, suggests that this increase occurs in both emergency and elective caesareans sections (Jessica Chamberlain (ONS), Trends in reproductive epidemiology and women's health, CEMACH).

Looking at methods of delivery in Great Britain over the past decade, we see that there has been an increase in the total number of caesarean sections:

- In 1995/96 1 in 6 babies born in NHS hospitals were delivered via caesarean section
- In 2000/01 1 in 5 babies born in NHS hospitals were delivered via caesarean section
- In 2004/05 nearly 1 in 4 babies born in NHS hospitals were delivered via caesarean section.

Yet in 1985 the World Health Organisation (WHO) said:

*'there is no justification for any region to have a higher caesarean rate than 10-15%'*

(WHO Consensus Conference on Appropriate Technology for Birth, Fortaleza, Brazil, 22–26 April 1985). Thus the UK rate is far higher than the, still current, WHO recommendation.

It might be assumed that the rising rate is due to increasing elective caesareans, but in recent years these numbers have stabilised and the growth is due to increasing numbers of emergency caesareans. There are likely to be many factors affecting the increased number of caesareans. Commonly cited causes are:

- Maternal choice: but statistics indicate that this accounts for only a small proportion of all caesarean sections - 7% (according to clinicians) 5.3% (survey of womens preferences) (RCOG, 2001).
- The changing age profile of the childbearing population: in countries such as Finland and the Netherlands there has been a shift towards older mothers, but caesarean rates remain relatively low there, so the age profile of mothers does not account for increasing numbers of caesarean sections.

Additional factors include:

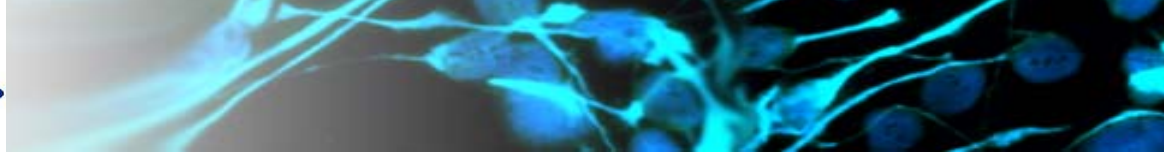
- Increased fear of litigation: "...almost a fifth of the hospital-based obstetric respondents in a large scale survey admit that they now perform more caesareans because they fear possible litigation...", Andrew Symon Litigation and changes in professional behaviour: a qualitative appraisal, Midwifery, 2000, 16, 15-21
- Clinical indication: two of the main clinical determinants of caesarean sections were listed as foetal distress and failure to progress. A recent study lends support to a causal relationship between being the mother being overweight or obese and having a caesarean section delivery. Villamor et al, Lancet 2006, Sep 30, 368(9542):1164-70

Caesarean sections are on average more costly than normal births. For approximately every 800 births without complications conducted as normal deliveries as opposed to by caesarean, the NHS would save £1 million.

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## Notes to Editors

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The annual *OHE Compendium of Health Statistics* is one stop statistical source specially designed for easy use by everyone interested in the UK health care sector and the NHS.

Compiled independently by the Office of Health Economics, the OHE Compendium of Health Statistics draws together data from a variety of scattered sources.

It includes comparisons with other economically developed nations. The UK data are broken down into England, Northern Ireland, Scotland and Wales and contain annual figures from as far back as 1949 (the first full year of the NHS).

The OHE Compendium of Health Statistics is published in hard copy by Radcliffe Publishing Ltd.

An online version of the OHE Compendium is also available which provides a powerful text search facility and enables charts, tables and graphs to be downloaded directly into Microsoft Excel spreadsheets and reports or Microsoft PowerPoint presentations. For further information go to [www.ohcompendium.org](http://www.ohcompendium.org).