Written evidence submitted by Professor Andrew Street (CSR0094)

Brief introduction

Andrew Street is a Professor of Health Economics, Director of the Health Policy team in the Centre for Health Economics at the University of York and Director of the Economics of Social and Health Care Research Unit, a joint collaboration between the Universities of York, Kent and London School of Economics. Andrew has undertaken research in measuring NHS productivity, hospital funding, integrated care, and the use of patient reported outcome measures (PROMs) to improve health care.

Executive summary

- NHS productivity growth has outpaced that of the rest of the UK economy over the last few years
- Quality of NHS care has improved, most notably reductions in 30-day mortality following hospital procedures
- Recent productivity growth of the hospital sector has been negative
- There is large variation in productivity across hospitals and this has persisted over time
- There is little evidence that the payment regime has encouraged productivity improvements, or a shift of activity from hospitals to other settings
- There is a need to reform the payment system, but hospitals need to take greater responsibility for their financial situation

NHS productivity growth

1. *NHS productivity growth has outpaced that of the rest of the UK economy over the last few years.* The economy-wide productivity measure is produced by the Office of National Statistics\(^1\) and formed the basis of a recent House of Commons briefing paper on productivity.\(^2\)

2. The Centre for Health Economics at the University of York updates its NHS productivity series annually,\(^3\) the series recognised as the “most comprehensive and reliable estimates of productivity for the National Health Service in England”.\(^4\)

3. As figure 1 shows, NHS productivity growth has outpaced the economy through the entire period. The recession in 2008/09 is reflected by the notable dip in each series. Since then NHS productivity has increased year-on-year, whereas productivity has been falling for the economy since 2011/12.

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\(^2\) http://researchbriefings.parliament.uk/ResearchBriefing/Summary/SN06492

\(^3\) http://www.york.ac.uk/media/che/documents/papers/researchpapers/CHERP126_NHS_productivity_update2013_14.pdf

\(^4\) http://www.parliament.uk/business/publications/written-questions-answers-statements/written-question/Commons/2015-02-11/22431
4. Productivity growth is measured by comparing the rate of growth in outputs to the rate of growth in inputs.

5. **NHS output has increased with ever more patients receiving treatment.** Compared with 2004/05, hospitals are treating 4m (32%) more patients, the number of outpatient attendances has increased by 17%, there has been an estimated 25% growth in GP consultations, and community care activity has increased by 14%.

6. **Quality has also improved.** Hospitals have been getting progressively better at keeping people alive over the past decade. This can be seen in figure 2 which collates data about hospital death rates published by the Health and Social Care Information Centre, the latest release in August 2015 covering 2003/04 to 2012/13. For five types of care, the graph shows the age standardised deaths per 100,000 within 30 days following a hospital procedure. For all five series, death rates have been falling over time, dramatically so for those admitted following a stroke. Marked improvements are visible since the publication of the National Stroke Strategy in December 2007 which defined “markers for high-quality stroke care, and sets out actions and progress measures for achieving the vision over a ten-year period”.

7. Moves toward centralised models of acute stroke care, in which hyperacute care is provided to all patients with stroke across an entire geographic area, have also helped. The introduction in 2010 of such models in Greater Manchester and London has been shown to reduce mortality and length of hospital stay.

8. On the downside, although waiting times are shorter than they were in 2004/05, they have been getting longer since 2007/08.

9. **Taking account of the amount and quality of care, overall NHS output increased by 47% between 2004/05 and 2013/14.**

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5. [https://indicators.ic.nhs.uk/webview/](https://indicators.ic.nhs.uk/webview/)


7. [http://www.bmj.com/content/349/bmj.g4757.long](http://www.bmj.com/content/349/bmj.g4757.long)

10. **NHS expenditure has risen, funding pay rises and securing more resources.** Wages rose by 24% between 2004/05 and 2012/13, though pay has fallen since 2009. There has been a 10% increase in the number of NHS staff and increased use of agency staff, but there have been periods of retrenchment, notably whenever the hospital sector has been struggling to reduce deficits.

11. **Taking account of all staff and non-staff resources, such as equipment, supplies and capital, NHS inputs increased by 31% between 2004-5 and 2013-14.**

12. Output growth has exceeded input growth, yielding positive productivity growth. As shown in figure 3, from 2004/05 to 2013/14 NHS productivity increased by almost 13%. Productivity growth has been especially strong since 2009/10, and between 2012/13 and 2013/14, the latest available figures, growth amounted to 2.2%.

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10 [http://www.bmj.com/content/351/bmj.h6250](http://www.bmj.com/content/351/bmj.h6250)

11 [https://theconversation.com/are-agency-staff-to-blame-for-hospital-deficits-51605](https://theconversation.com/are-agency-staff-to-blame-for-hospital-deficits-51605)
Hospital productivity

13. The above notwithstanding, there remains scope for improvement. Productivity has not improved at the same rate across all NHS settings, with the productivity of the hospital sector having fallen by 0.5% between 2012-13 and 2013-14.12

14. Our research also shows that hospital productivity varies substantially across hospitals. In 2008/9 hospital productivity varied from +45% above to -62% below the national average;13 in 2012/13 productivity ranged from +31% above to -50% below the national average.14

15. This variation cannot be fully explained by differences in the services they produce or the kinds of patients they treat. Productivity is lower in larger hospitals and those with greater financial autonomy (Foundation Trusts), and where a large proportion of income derives from education, research and development, and training activities.

16. For individual hospitals, relative productivity is fairly stable from one year to the next. This persistence over time suggests scope to improve the performance of hospitals with low productivity.

Hospital deficits and the payment regime

17. In November 2015, Foundation Trusts and NHS Trusts reported a combined deficit of £1.6 billion for the first six months of 2015/16, with 182 out of 241 providers (151 FTs and 90 NHS Trusts) in deficit. The overall forecast for 2015/16 was for an end-of-year net deficit of £2.2 billion.

18. In 2016/17, £1.8 billion of the £2.14bn Sustainability and Transformation Fund is to be used to stabilise NHS operational performance and help providers to overcome deficits (provided that they meet various preconditions). This leaves little left (£340m in 2016/17) to support the Transformation agenda and the vision for integrated care as articulated in the Five Year Forward View.15

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14 https://www.york.ac.uk/media/che/documents/papers/researchpapers/CHERP117_hospital_trusts_productivity_English_NHS.pdf
19. It is unlikely that just by meeting the preconditions for deficit relief that longer-term structural problems will be solved. As part of a longer-term strategy, the payment regime also needs to be reformed.
20. Hospitals complain that national tariff arrangements have contributed to their deficit position, and collectively they have frustrated attempts by Monitor to set tariffs for 2015/16 and 2016/17.  
21. The tariff is the price that hospitals receive for treating particular types of treating patient. The attraction of this payment system is that it promises equal pay for equal work, with the same national tariff being paid for a particular treatment wherever it is provided. Tariffs reflect the average cost of treatment as reported by hospitals in their annual reference cost submissions. The payment system also accounts for differences in costs over which hospitals have little control, by means of the Market Forces Factor but this has not been updated for some years.
22. The payment system requires review, particularly in terms of the appropriateness of across-the-board efficiency targets, the implications of moving from the HRG4 to HRG4+ classification system to describe patients, the form of the Market Forces Factor, and the grounds for making off-tariff payments to hospitals.
23. But hospitals also need to take greater responsibility for their financial situation.
24. First, they have to take responsibility for costing. Hospitals complain that reference costs are a poor reflection of true costs. This begs the question of whether hospitals have an adequate understanding of their cost structures to make informed financial decisions about the amount and type of activities they undertake. Although the national tariff system was introduced in 2003/4, by 2013/14 only 42% of acute hospitals were using patient-level costing systems to determine their costs.
25. Second, hospitals need to assess both the income and cost implications of what they do. Hospitals seem to focus solely on their income without considering costs. This is evidenced by a quote from a financial manager in the Guardian’s recent ‘This is the NHS’ series: “perversely, with our accounting goggles on, we tend to view more patients turning up at A&E favourably as it boosts the trust’s income.” This view appears prevalent across the sector, hospitals appearing to believe that they can ‘trade their way’ out of financial trouble by treating ever more patients.
26. This belief is false. As tariffs are based on average costs, some hospitals can be expected to make profits and other losses on their activity. For the latter hospitals, treating more patients will exacerbate rather than relieve their financial difficulties.
27. Third, the rise in hospitals activity is partly but not completely demand-led. Hospitals complain that they have little control over what they do, simply reacting to demand. Demand on hospitals has indeed increased recently. For instance, there is greater pressure on A&E because social care support has been cut back and because the new 111 service advises more people to go to A&E than the old NHS Direct did.
28. Similarly, reductions in social care funding have meant fewer people are receiving support from their local authority. These reductions have put pressure on the NHS, with delays to discharge from hospital being due to a lack of care home places or to inadequate resources to support patients in their homes. Lord Carter’s recent report suggested that discharge delays were costing hospitals £900m a year.
29. But the rise in hospital activity is not all demand-led. If it were, the rate of increase would be the same for non-elective and elective activity. But the rates differ markedly. According to the HSCIC emergency admissions to hospital increased by 19% from 4.7m to 5.6m between 2005/6 and 2014/15. In contrast, elective admissions increased by 39% from 4.4m to 6.1m over the same period.

30. The much higher increase in elective admissions has been partly fuelled by a false belief that treating ever more patients will generate surplus. But it may actually be exacerbating deficits. The payment system and belief systems need to be revised so that greater effort is put into treating people in alternative settings and to prevent hospital admissions.

31. Finally, the move to 7-day services may contribute further to deficits. Nationwide, the cost of implementing seven-day services in hospital is estimated to be £1.07bn-£1.43bn a year, even supposing that it would be possible to recruit staff with the necessary skills. The implication is that implementing 7-day arrangements will entail sacrifices elsewhere, the net effect perhaps producing more harm than good.

17 February 2016

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