National Audit Office

REPORT BY THE COMPTROLLER AND AUDITOR GENERAL

HC 192
SESSION 2012–13

29 JUNE 2012

Healthcare across the UK: A comparison of the NHS in England, Scotland, Wales and Northern Ireland

Key facts

Set out below are data for all four nations for the indicators quoted in the Summary of the report. A more comprehensive set of indicators is discussed in the Summary and presented in the main body of the report.

	England	Scotland	Wales	Northern Ireland
Life expectancy at birth – men, 2008–2010, years	78.6	75.9	77.6	77.1
Life expectancy at birth – women, 2008–2010, years	82.6	80.4	81.8	81.5
Spending per person on health services, 2010-11, £	1,900	2,072	2,017	2,106[1]
Spending on health services as a percentage of total public spending, 2010-11, %	22.0	20.4	20.3	19.7[1]
Number of GPs (headcount) per 100,000 people, 2009	70	80	65	65
Average taxable income of GPs, 2009-10, £	109,400	89,500	93,500	91,400
Day cases as percentage of all hospital admissions, 2008-09	41.0	36.4	36.8	41.8
Average hospital length of stay (acute beds only), 2008-09, days	4.3	5.7	6.3	5.5
Number of emergency admissions per 100,000 people, 2009-10	9,994	9,917	11,471	–
(increase since 2000-01, %)	(28)	(9)	(3)	–
Reduction in MRSA infection rates per bed day, 2007-08 to 2010-11, %	67	62	38	43

NOTES

1 The Department of Health, Social Services and Public Safety (Northern Ireland) will be seeking to have the published data for health spending in 2010-11 re-stated. The Department considers that spending on health services per person was £1,975 in 2010-11 and that Northern Ireland devoted 18.5 per cent of public spending to health.

2 Notes on comparability are included in the main body of the report with full sources included in the detailed methodology, available at: www.nao.org.uk/uk-healthcare-2012

Summary

1 Since 1999, responsibility for health services has been devolved to the administrations in Scotland, Wales and Northern Ireland. The administrations have powers to choose how much money to spend on health services, what their policy priorities should be, and how services should be delivered, as the UK Government does for England. This report compares the four nations of the UK by setting out comparable data, where available, on health outcomes and spending, and on the delivery and performance of the health services.

2 The work for the report was carried out in collaboration with the Wales Audit Office and the Northern Ireland Audit Office, and we are grateful for the contribution they made. We are also grateful for the advice and assistance of Audit Scotland during the course of our work.

3 The report identifies the extent to which variances exist between the four nations and where further examination may help determine those practices that could deliver better value for money. To set any differences between the nations in context and to provide additional comparators for Scotland, Wales and Northern Ireland – in terms of similar population size and characteristics – we also report certain data for the nine English regions.

4 We did not investigate systematically the reasons behind any variations in performance, although we have carried out more detailed analysis in a number of areas. We also suggest possible explanations for some of the variations. Our methodology is summarised in Appendix One, with further details available at www.nao.org.uk/uk-healthcare-2012.

5 **Figure 1** overleaf sets out the indicators we would have liked to use to compare the health services of the four nations. However, much of the data collected by national statistics authorities are not directly comparable, with the data for some measures either not consistently collected across the nations or not available for certain years. We were therefore not able to use all our preferred indicators or to present them over a consistent time period. Where comparable data were not available we present alternative indicators for which data are consistently collected across the nations. While most of the figures we report have been previously published in comparable formats, we have not audited the data collection processes or validated the figures.

Figure 1
Indicators for comparing the health services

	Preferred indicators	Key data issues	Actual indicators reported
Health outcomes	Composite measure of population health.	Difficulty in measuring some aspects of health and weighting between the different elements.	Life expectancy. Mortality rates.
Health spending	Health spending per person by care setting (e.g. hospital, primary care). Percentage of public spending devoted to health.	No consistent approach to disaggregating spending data by care setting.	Total health spending per person. Percentage of public spending devoted to health.
Cost and volume of health service resources	Unit costs of paying for staff and other resources.	Limited comparable data in some areas of non-staff costs.	Average GP and dentist income. Cost per prescription item.
	Number of resources per person.	No data on some staff, e.g. practice nurses.	Number of GPs, dentists and selected hospital staff per person.
Efficiency and productivity in the use of health service resources	Amount of activity (e.g. GP consultations, hospital admissions) produced by resources.	Limited activity data for primary and community care.	Survey data on the estimated number of patients seen by GPs. Combined measure of hospital activity per medical staff.
	Composite measure of productivity, i.e. indicator of total resources and total quality-adjusted activity.	Sensitivity to weighting the quality measures and the different units of inputs or outputs. Data not available for all four nations.	Data on the efficient use of hospital beds (day cases, lengths of stay).
Quality and effectiveness of healthcare	Measures of health gain attributable to the healthcare provided (e.g. change in quality of life).	Attribution of any health gain to health services. No comparable data currently available on some key measures of primary and hospital care quality (e.g. hospital readmissions and patient satisfaction).	Performance against Quality and Outcomes Framework indicators. Emergency admission rates. Hospital waiting times. Healthcare associated infection rates.

Source: National Audit Office

Health outcomes

6 There are significant differences in health outcomes across the UK. For example, in 2008–2010, average life expectancy at birth varied for men from 75.9 in Scotland to 78.6 in England, and for women from 80.4 in Scotland to 82.6 in England. Similar disparities were also evident in healthy life expectancy and in 'standardised mortality ratios', which take account of the make-up of each nation's population in terms of age and gender. However, such measures of outcomes largely reflect general standards of public health – and therefore the need for healthcare – rather than the performance and effectiveness of the health services.

Spending on health services

7 Spending on health services in the UK has more than doubled in cash terms in the last decade, growing from £53 billion in 2000-01 to £120 billion in 2010-11 (equivalent to an increase of around 80 per cent in real terms). The rate of increase has been broadly consistent across the four nations but levels of spending per person on health services continue to vary. Published data for 2010-11 showed that England had the lowest spending per person on health services (£1,900).

8 As well as reflecting how well health services are delivered, the variations in health outcomes and spending, between the nations and over time, are affected by differences in:

- the health needs of the nations' populations, which are affected by demographic, geographic and behavioural factors; and
- the priority given to health, compared with other devolved services.

Population health needs

9 Many factors affect population health needs and the demand for healthcare, including the level of ill-health, the age and socio-economic profile of the population, and behavioural factors, such as diet and smoking. No one nation had the greatest level of health need against all the individual indicators we examined. However, exploratory work, commissioned for this report, to calculate a consolidated measure of need combining a range of indicators suggested that there are substantial differences in average health need per person between the nations. On the basis of the data available, average need was estimated as highest in Northern Ireland and lowest in England.

Policy and funding priorities

10 Each nation has its own government department to develop and implement the health policy and priorities of its government. Health priorities have varied across the nations, and within nations, over time, although there has been overlap in key areas such as public health, waiting times and cancer services. Comparisons of outcomes and performance between the nations need to be viewed in the context of differences in priorities. For instance, nations that prioritise, and commit more funding to, public health campaigns may expect to see any impact on health outcomes only in the longer term.

11 The administrations in the four nations are free to choose how much of their overall budget to devote to health. Since 2005-06, the proportion spent on health by each of the four nations has remained fairly constant. England has consistently devoted the highest proportion of total public spending to health services (22.0 per cent in 2010-11), with Northern Ireland the lowest.

Health service delivery and performance

Organisation of health services

12 Except in Northern Ireland, where a single organisation purchases services for the whole population, the majority of health services are organised at a local level. In the last decade there has been notable divergence in policy and performance management between the nations, particularly in the use of competition between healthcare providers. Since devolution, the commissioners and providers of health services have been reintegrated in Scotland and Wales, thus removing the internal market. In contrast, the internal market remains in Northern Ireland and the role of competition has increased in England.

Cost and volume of health service resources

13 Staff costs account for around two-thirds of spending on health services. Most NHS hospital staff in the UK are employed through similar nationally negotiated contracts, so there is little difference in pay bands. There has been, however, more marked variation in the pay of dentists and in particular of GPs, who derive their earnings from the income of their practice. In 2009-10, the average taxable income of GPs ranged from £89,500 in Scotland to £109,400 in England. Some of this variation is likely to result from differences in the size of patient registers and the income practices receive for providing additional services.

14 In line with the rise in funding, levels of health service resources, such as staff and capital spending, have also increased over the last ten years. Scotland has consistently had the most GPs per person, with 80 GPs per 100,000 people in 2009 (measured by headcount) compared with 65 in both Wales and Northern Ireland. Based on the most recent data, for 2009, Scotland also had the highest number per person of medical hospital staff and of nursing, midwifery and health visiting staff. Northern Ireland had the most non-clinical hospital staff per person.

Efficiency and productivity in the use of health service resources

15 There are no routinely published, comparable indicators that measure all aspects of efficiency or productivity in the four nations in either primary or hospital care. We therefore looked at a number of individual measures relating to the efficient use of (a) the healthcare workforce (activity per staff member) and (b) hospital beds (day case rates and hospital lengths of stay). It should be stressed that these measures do not account for any differences in the complexity or quality of the care provided.

16 In the absence of routinely collected comparable data on the number of patients seen by GPs, we report findings from a 2009 survey. GPs in Wales estimated seeing more patients per week on average than their counterparts in the other nations, with GPs in Scotland seeing the fewest. Within hospitals, activity levels per medical staff member were highest in England and lowest in Scotland in 2008-09.

17 Northern Ireland treated the highest proportion of all hospital admissions as day cases in 2008-09 (41.8 per cent). In the same year, average hospital lengths of stay varied from 4.3 days in England to 6.3 days in Wales. Further analysis of two specific areas of hospital care – births and hip replacements – indicated that, even after adjusting for differences in patient characteristics and case-mix (such as the proportion of complicated procedures), there was significant variation in hospital lengths of stay within nations. This suggests that there is scope for improved efficiency.

Quality and effectiveness of healthcare

18 We analysed data from the Quality and Outcomes Framework, an incentive scheme for GP practices, to assess aspects of the quality of primary care provided in four disease areas – coronary heart disease, stroke, hypertension, and diabetes. GP practices in Scotland and Northern Ireland generally scored better in 2010-11 than those in England and Wales. The variation between the nations was less than in the previous year.

19 The rate of emergency admissions, where patients require unplanned hospital treatment, is also an indicator of the quality of primary and community care. Emergency admissions per person were higher in all four nations in 2009-10 than in 2000-01, with the increase greatest in England (28 per cent). Wales had the highest rate of emergency admissions in 2009-10 (11,471 per 100,000 people). Comparable data were not available for Northern Ireland.

20 Reducing waiting times for accident and emergency services and elective hospital care has been a priority across the UK, and the length of time patients wait for key hospital procedures has fallen in all four nations since 2005-06. For six common procedures, waiting times in 2009-10 were shorter in Scotland and England than in Wales and Northern Ireland. However, the targets/performance standards used vary in how they are framed, which makes it difficult to compare performance. England was the only nation to achieve its accident and emergency performance standard in 2010-11. England and Scotland were the only nations to achieve their performance standards for elective hospital care in full in 2011.

21 There has been a considerable decrease in levels of key healthcare associated infections in all four nations in recent years. For instance, from 2007-08 to 2010-11, MRSA rates decreased by between 67 per cent in England and 38 per cent in Wales. There was also a reduction in the number of deaths caused by *Clostridium difficile* during the same period.

Concluding comments

22 The health departments in the four nations are charged with securing value for money for the significant amounts of public money that they spend. We publish this report at a time when health services across the UK are under increasing pressure to use resources more productively. Funding is becoming tighter and ageing populations, and advances in drugs and technology, contribute to continued growth in the demand for healthcare.

23 We found limited availability and consistency of data across the four nations, restricting the extent to which meaningful comparisons can be made between the health services of the UK. For this reason, and without a single overarching measure of performance, we cannot draw conclusions about which health service is achieving the best value for money. Where comparative data are available, we found that no one nation has been consistently more economic, efficient or effective across the indicators we considered.

24 The shared history and similarities between the four health services mean they offer a natural starting point to better understand the factors that affect value for money and the impact of divergent health policies and systems on performance. We consider there would be value in the four health departments carrying out further comparative work to evaluate the variation in, and understand the drivers of, value for money. To take this work forward, the health departments would need to:

- confirm that there is a desire at a national level to compare performance with a view to learning lessons and identifying good practice;
- agree the specific indicators that would provide the most insight;
- establish what data would be required to make comparisons and identify how to collect and collate these data proportionately and cost-effectively; and
- use the comparisons as a starting point to draw out key factors that drive performance and value for money.

25 To take account of the difference in population needs and patient characteristics, any systematic evaluation of variation needs to be based on consistently collected, patient-level data. For our work, we undertook exploratory analysis of two specific areas of hospital care across the four nations, showing that such comparative methodologies are possible where suitable data exists. Health departments would need, however, to undertake further work to:

- understand the differences in how existing routinely collected data are recorded and any bias this may introduce; and
- agree other areas of healthcare for which consistent, comparable patient-level data could be collected and made readily available.