

Abstract for “Output and Productivity Growth in the Healthcare Sector: A Study of Four European Countries”

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This research compares output and productivity across healthcare sectors in four European countries, Germany, Hungary, Spain and the United Kingdom. As well as providing an overview of performance, an important objective of the research was to investigate the measurement difficulties that arise and inform work by national accounts statisticians. Although health systems vary, the basic form in which data are available is similar across the four countries, consisting of data on the volume of activities carried out by health care providers and associated unit costs. This allows the estimation of aggregate output growth as the growth in activities weighted by unit costs. In addition the research examines quality adjustments using information on in hospital survival rates. In terms of productivity, data issues meant that labour was the only input that could be reasonably compared across countries. In all countries there has been a trend in the period covered to employ proportionally more relatively high cost physicians so adjusting employment to take account of the composition of the workforce is important.

There is large variation across the four countries in output growth with the UK showing by far the fastest growth. However in all four cost weighted activity growth is higher than the growth in total patient numbers, implying growth is faster for relatively high cost procedures. This in turn is related to the increasing treatment of older patients. Examination of output growth by broad disease categories shows similar growth rates across all groups for Germany but more variability in the remaining three countries. The UK output growth is much higher than other countries in Musculoskeletal system treatments (which includes hip and knee replacements etc.), with growth rates of about 6% per annum compared to just over 2% in Germany and Spain and 0.5% in Hungary. Similarly the UK outperforms the other countries in treating diseases of the respiratory system. However the growth of output in the UK is similar to Germany in treating primary cardiac conditions, with about 3% output growth, whereas growth is almost zero for this important group of conditions in Spain and Hungary. The UK shows much greater change in survival rates in both respiratory and cardiac treatments than other countries.

Turning to labour productivity estimates, Germany, Hungary and the UK experienced similar rates of labour productivity growth but whereas in Germany and the UK this was accompanied by strong output growth, in Hungary this was achieved through large reductions in labour input. In contrast, in Spain the growth in labour input slightly outpaced the growth in labour input leading to declines in labour productivity.

This first attempt to compare performance of the health sector across European countries suggests some significant differences in the period covered by this study. Although the research was hampered by the quality of the underlying data, it demonstrates that such exercises are feasible and could potentially be

important in understanding the drivers of productivity growth in the delivery of healthcare. As most European countries are currently trying to incorporate quantity based measures of the volume of healthcare output in national accounts, an important outcome of this research is to highlight the difficulties in doing so in a way that makes sense in international comparisons. In particular there is a need for much more information on activities other than in-patient treatment in hospitals.