#### Lay Summary

# Publicly funded hospital expenditure growth and its determinants

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Understanding the drivers of growth in health care expenditure is crucial for forecasting future health care requirements and for the efficient allocation of resources. Factors such as changing demographics due to an ageing population, increases in chronic conditions and multiple morbidities, and rising public expectations of the benefits of health care are often cited as key drivers of expenditures. Supply side characteristics including increasing health care costs, the impact of technological change, and the configuration and efficiency of service provision are further relevant considerations. This paper examines the relative contribution of such factors to expenditure growth observed across the period from 2009/10 to 2016/17.

We focus on changes in hospital admitted care expenditure (a key component of overall health care expenditure) using administrative data from Hospital Episode Statistics. By matching admissions to their associated cost, we are able to establish the change in admitted care expenditure over time. We consider changes to supply-side, or institutional, characteristics focusing on the division between elective and non-elective care, short or long-run stays and day cases, and consider age, morbidity and the number of patients presenting for care as demand drivers. We explore the extent to which the observed increase in expenditure across the period was due to changes in these characteristics, and due to changes in the expenditure response to these characteristics (e.g. changes in treatment cost for a given morbidity).

Overall observed growth in admitted care expenditure across the period was £3.5b. The corresponding growth in the number of admitted patients was approximately 700,000. Of supply characteristics, increases in episodes of non-elective care accounted for the majority of the increase in costs and was driven largely by increases in long-stay episodes of care. The main contributing demand-side factor was a substantial increase in the proportion of patients presenting with multiple morbidities (5+). These were predominantly associated with older patients (70+ years age groups) and were particularly responsible for increasing expenditures at the upper end (top 10%) of the expenditure distribution. We further find evidence of efficiency gains in per patient treatment costs across the range of the expenditure distribution. These gains were, however, outweighed by an increasing proportion of older, more complex patients admitted to non-elective care.

## Full paper available at:

https://www.york.ac.uk/media/che/documents/papers/researchpapers/CHERP177 funded hospital expendit ure\_growth.pdf

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