**The impact of hospital market concentration in England on the quality of health care: evidence from a Patient Reported Outcomes Measures (PROMs) data analysis**

**Background**

From 1st April 2009, all providers of care funded by the NHS in England have been required to collect Patient Reported Outcome Measures (PROMs) data for four common surgical procedures: hip replacements, knee replacements, hernia repair and varicose veins. PROMs are typically obtained via short, self-completed questionnaires, which measure the patient’s assessment of their own health status or health related quality of life at a single point in time. The health status information collected from patients by way of PROMs questionnaires before and after an intervention provides an indication of the change in outcomes and hence of the quality of care delivered to NHS patients. PROMs represent more complete estimates of hospitals’ quality as perceived by patients than the previously used measurements, e.g. re‐admission or adverse events rates. The availability of PROMs data at the hospital and patient level provides a unique research opportunity to investigate the effect of hospital market concentration on patients’ self-reported health outcomes.

**Aims**

The primary aim of this project is to investigate the relationship between hospital market structure in England and patient health improvement for four common elective procedures. We also aim to understand to what extent the locations of treatment are influenced by market structure and by how severely ill patients are.

**Data**

Anonymised patient-level PROMs data are available and can be linked to Hospital Episode Statistics (HES) data. The dataset covers all cases for the four elective procedures covered by PROMs from 1st April 2009 until 30th November 2012. PROMs data will be used to proxy patients’ health outcomes, namely EQ-VAS, EQ-5D profile (and utility index-weighted profiles) and four condition specific scores. Patients’ and hospitals’ postcodes from HES data will be used to calculate procedure specific HHIs as proxies for the market concentration of each hospital in each specific surgical procedure.

**Methods**

In the cross sectional analysis, we use logit and probit regressions to examine the relationship between the location of treatment (i.e. whether patients use the closest/second closest hospital), patients’ self-reported health before treatment, and hospital market structure in England. Furthermore, we use OLS regressions to understand the relationship between patients’ health improvement and market structure, followed by a panel data analysis. We use fixed and random effects methods to control for the unobserved hospital and patient characteristics.

**Preliminary results**

This project is work in progress. Preliminary results will be obtained in May and reported in the paper for HESG.