Case Finding & Population Profiling - Separate Disciplines or Both Sides of the Same Coin?

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Introduction
Key health policy imperatives within the National Health Service (NHS) in England over the last 5 years have seen an increase in the use of risk stratification tools and in case finding activities, particularly in relation to identifying individuals as risk of emergency/unplanned admission to hospital.

Using case finding techniques has been largely confined to providing primary care clinicians with lists of people who may benefit from proactive intervention to prevent an unnecessary admission to hospital. However, clinicians and managers have repeatedly noted two things - firstly people at risk on unplanned hospitalisation are not a particularly homogenous group in terms of the principle intervention being offered and secondly when the existing predictive models are used to try and identify other cohorts of interest such as frail people or those who are the highest cost, the correlation between the list produced by the model and what people observe is lower.

Methods
An exercise was undertaken within a Clinical Commissioning Group (CCG) in Berkshire to profile the whole population, concentrating specifically on what factors are the key divers of cost and hospital activity and to explore the overlap between patients at risk of different adverse outcomes. Patient level (but anonymised) data covering a population of circa 140,000 was used to undertake this analysis.

Results
Results will be shown that illustrate new understanding and insight about key drivers of cost and how the overlap between different at risk groups is not as large as the CCG and others first thought. Initial results demonstrate that multi-morbidity rather than age is the key driver of cost and that the overlap between different risk groups can be as low as 25%.

Conclusions
There has been a focus within the NHS on preventing unplanned admissions to hospital and the principle use of risk stratification tools and case finding techniques has been to identify people at risk of this adverse outcome. However, policy imperatives are evolving and there is increasing interest on other cohorts of individuals who may benefit from proactive intervention and how these can be found using predictive modelling tools and techniques. Our work argues that in order to undertake effective case finding you first need to profile of the population you are managing, then use quite sophisticated case finding techniques to align the programmes of care available to the needs of the population and then continue to iterate between these activities.

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