

Using case mix adjustment to devise a fairer resource allocation formula in UK primary care.

Introduction

The principal proposition is to distribute funding for primary care in a way that more closely matches the needs of the population, with the aim of reducing health inequity in outcome.

The current national funding formula, is not felt to match resource to need as well as it should. This is because it uses practice (not patient) level data is not case mix adjusted, does not include certain factors known to affect primary care workload, and uses problematic and outdated workload estimates.

The intention was to develop a flexible, local formula, based on local data that was responsive to changes in need, that enabled simplification of payment mechanisms.

Methodology

The principles guiding this work are:

- to use whole population, patient level data to capture the granularity that occurs due to the size of our service providers
- to use the data to determine both the parameters of model and its inputs
- to use an analytic program capable of handling both the breadth of clinical scenarios and their complexity (ACG)
- to adjust the dataset for missing data (to remove the distortions that missing data forces on the case mix system).

The basic funding model structure consists of a Core funding component and a Needs based component, comprising needs and deprivation elements.

The weights needed for the case mix calculations were derived using local primary care activity data matched to the case mix cells. They were applied to each provider's estimated case mix after adjustment for coding deficit, to calculate the case mix adjusted expected activity.

Results

The output was a relative coding, case mix, turnover and communications adjusted expected provider activity which was used as a proxy for need to distribute the funding deemed in the scope of the project.

On a population base of 1.16m patients, the model was used to allocate £114.6m between 130 primary care providers. The core funding made up 42%, the case mix needs component 52% and the deprivation 6%.

The model led to increases in funding attributable to the new funding model for 76 primary care providers totalling £2.8m, whom the model had determined had been under-resourced compared to peers under existing funding arrangements.

Discussion

The arrival of NHS big data, a tool such as ACG powerful enough to handle the complexity, combined with the analytics needed to adjust for the effects of data deficit were three of the keys to success. However, without the additional support from the head of finance and the ICS, this project could not have succeeded. Additionally, much time was spent engaging with providers and local stakeholders to secure agreement, as this was outside the national funding settlement. Transparency and having an objectively testable value-driven approach were also essential.

Early indications are that the funding redistribution is having an effect on local staff retention and recruitment in traditionally difficult areas.

An outcomes framework that has been put in place to measure changes going forward.