

Assessing the Impact of Morbidity in Populations of North London Clinical Commissioning Groups on Patient Admission Rates

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KEY POINTS . . .

Clinical Commissioning Groups (CCGs) are NHS organisations, set up by the Health and Social Care Act, responsible for commissioning the delivery of NHS services in England.

As CCGs are faced with the challenges of austerity within the NHS, finding methods to prioritise areas for savings are of interest.

Age and sex standardised elective and non-elective admissions rates were obtained with national averages and with the prevalence of 19 commonly occurring diseases in order to ascertain whether disease prevalence alone could explain rates of elective and non-elective patient admissions in North London CCGs.



Clinical Commissioning Groups

Clinical Commissioning Groups (CCGs) are NHS organisations set up by the Health and Social Care Act in 2012, to take responsibility for commissioning the delivery of NHS services in England. The government's desire to create a clinically driven commissioning system, sensitive to the needs of patients, led to the establishment of CCGs. There are currently 211 CCGs in England, which commission care for an average of 226,000 people per CCG. In order to achieve this, CCGs are clinically led and include all of the GP groups in their geographical area. The aim of this being that GPs and other clinicians are given the power to make commissioning decisions for their patients.

Disease prevalence appears to explain rates of elective admissions relatively well in North London CCGs compared to non-elective admission rates.

Since their creation, CCGs have become responsible for a large proportion of the NHS budget. For example, in 2013-14, of the overall NHS budget, £65.6 billion (~60%) was allocated to local health economy commissioners: that is, CCGs and local authorities [1]. With their allocated budgets, CCGs are responsible for commissioning local services, such as community services or secondary referral hospitals. Specialist services continue to be commissioned at a regional and national level by larger bodies.

Prioritising Care

As CCGs are faced with the challenges of austerity within the NHS, finding methods to prioritise areas for savings are of interest. This is particularly relevant as CCGs contend with population growth, alongside increasingly constrained budgets. In order to ensure that CCGs continually improve both the value that patients receive from their health care and the value that populations receive from investment in their local health system, "Commissioning for Value," a collaboration between NHS Right Care, NHS England, and Public Health England, has been established [2].

As part of this scheme, local health data is evaluated in order to highlight the greatest opportunities for improvement. An understanding of the factors that contribute to patient health care utilisation could help identify areas for improvement, such as high rates of emergency hospital admissions. This is a major concern for the NHS, not only because of the high and rising costs of emergency admissions compared with other forms of care, but also because of the disruption it can cause to elective health care and to the individuals that are admitted[3]. While disease prevalence could play a key role in driving rates of hospital admissions, other factors may be involved and warrant further investigation.

Evaluating CCG Utilisation

In order to ascertain whether disease prevalence alone could explain elective and non-elective patient admission rates, information provided by NHS England CCG Information packs and the NHS CCG Outcomes Tool (2011) was extracted for 20 North London CCGs [4,5]. North London represents an interesting population within England due to its diversity in ethnicity, age, and social class.

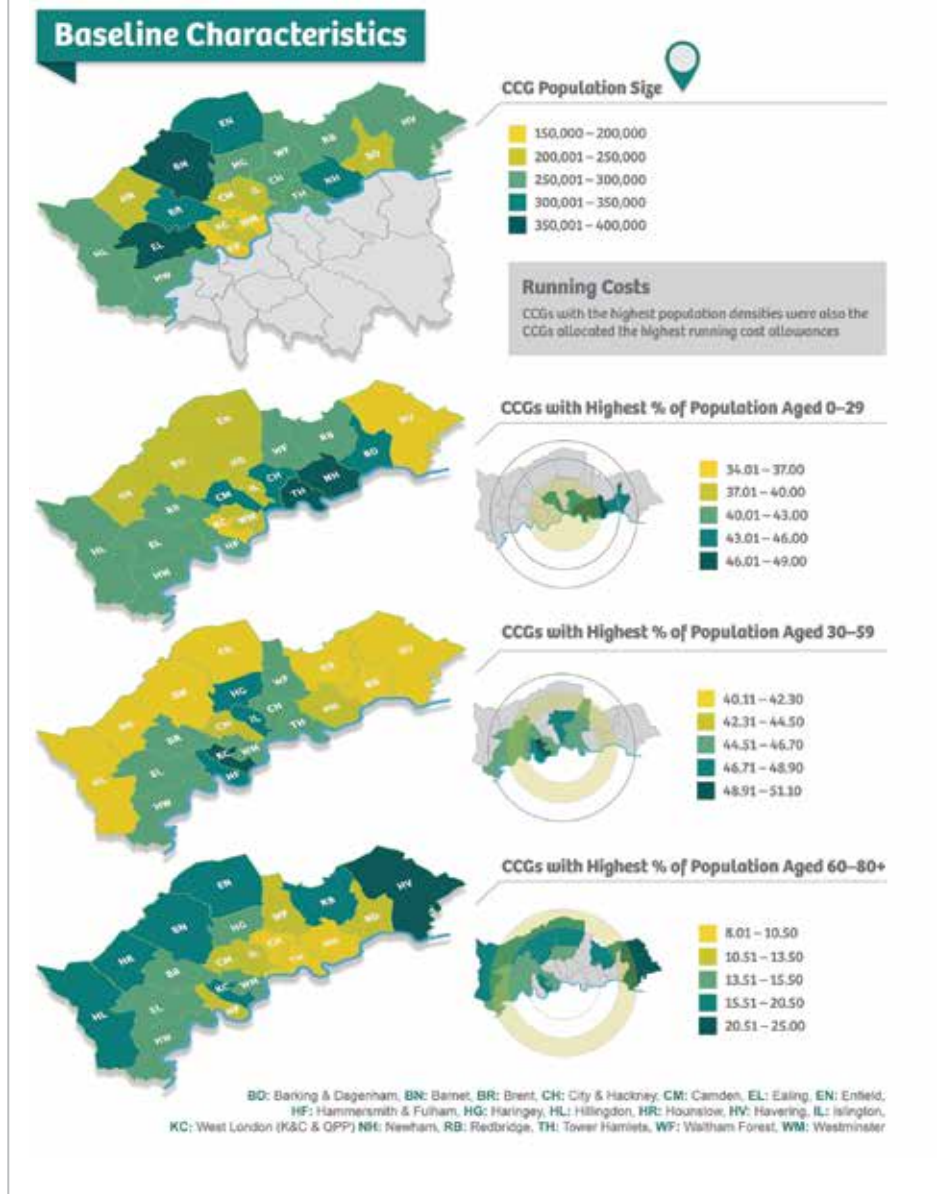
Age and sex standardised elective and non-elective admissions rates were obtained with national averages and with the prevalence of 19 commonly occurring conditions available for analysis through the Outcomes Tool. In order to test for correlations between prevalence and admission rates, we conducted a test for normality and observed that some of our data were non-normally distributed. As such, we conducted a non-parametric Spearman's rank test for correlation between admission rates and disease prevalence.

What We Found

We performed an analysis of the baseline characteristics of 20 North London



Figure 1. Baseline characteristics of the 20 North London CCGs included in the analysis. Characteristics include population size and age.



CCGs, observing that CCGs with the highest population densities were also those allocating the highest running cost allowances. Additionally, the most centrally located CCGs had the youngest populations. Moving further away from the centre of London resulted in a shift towards a higher proportion of older age groups with the most centrally located CCGs (Fig. 1).

Of the 20 North London CCGs included in the analysis, a higher non-elective admission rate (per 1,000 of the population) than the national average was reported (Fig. 2). Of these CCGs, the

disease prevalence was, on average, higher in only 6/19 diseases with those CCGs reporting lower than average non-elective rates. The six conditions were hypertension, cardiovascular disease, diabetes, epilepsy, obesity, and learning difficulties. Of these, obesity, cardiovascular disease, and learning difficulties were statistically significantly associated with non-elective admission rates ($p < 0.05$) (Fig. 2). We therefore propose that disease morbidity alone fails to explain higher than average rates of non-elective admissions. Alternative explanations for high rates of non-elective admissions could include ineffective management in primary

care, poor NHS community provision, a low admission threshold and/or that the rate could be influenced by the proximity of patients to accident and emergency (A&E) departments [4].

Four of the 20 North London CCGs included in this analysis reported higher than national average elective admission rates (per 1,000 of the population) (Fig. 3). Of these CCGs, the disease prevalence was, on average, higher in 13/19 diseases than in CCGs reporting lower than average elective rates. These conditions were stroke/transient ischemic attack, hypertension, cancer, mental health, asthma, heart failure, dementia, cardiovascular disease, diabetes, depression, epilepsy, obesity, and learning difficulties. Of these, asthma, cancer, epilepsy, and dementia were statistically significantly associated with elective admission rates (Fig. 3). As such, it seems possible that morbidity in these North London CCGs could help explain rates of elective admissions. In addition to morbidity, ineffective management in primary care, a high availability of specialist services and low levels of patients receiving private treatment could also explain elective admission rates [4].

Conclusion

Disease prevalence appears to explain rates of elective admissions relatively well in North London CCGs with non-elective admission rates. Non-elective admissions commonly occur in emergency situations, thus making the prediction of these events challenging for primary care management and NHS community provision. We propose that the challenges associated with predicting emergency medical events could potentially result in increased hospital admissions, irrespective of morbidity observed in the population. Hospital admission rates may also be influenced by ineffective management in primary care, poor NHS community provision, a low admission threshold, and/or the proximity of patients to A&E departments [4]. Further investigation into the role of these factors and their contribution to admission rates is warranted.

Our results should be considered in the context of a number of limitations. Firstly, the number of CCGs analysed was low, and as such there was a low number of CCGs with higher than national average admission rates available for analysis. The

number of diseases with available prevalence data was also restricted. Given more time, and data permitting, an assessment of the causes of emergency and elective patient admissions in the context of morbidity within a CCG's population would be beneficial. This would allow the identification of disease types that contribute most to hospital admissions and may allow CCGs to prioritise the prevention of such diseases.

Implications

The largest expenditure of CCGs is currently on secondary care (hospital admissions), and therefore reducing spending on this type of care is of great interest to CCGs in England. In order to go about reducing spending on secondary care, it is important that CCGs are able to monitor its use. The continued recording of patient admissions should be encouraged and will enable more effective monitoring of secondary care use. Factors contributing to higher rates of admissions, such as disease morbidity, management in primary care, and NHS community provision, should be further evaluated in order to identify priority areas for CCG investment and improvement.

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- [4] NHS England. CCG and Local Authority Information Packs. Available at: <http://www.england.nhs.uk/la-ccg-data/>. [Accessed January 22, 2015].
- [5] NHS England. CCG Outcomes Tool. Available at: <http://www.england.nhs.uk/resources/resources-for-ccgs/ccg-out-tool/>. [Accessed January 22, 2015]. ■

Figure 2. Association between disease prevalence and non-elective admission rates per 1,000 of the population in North London CCGs.

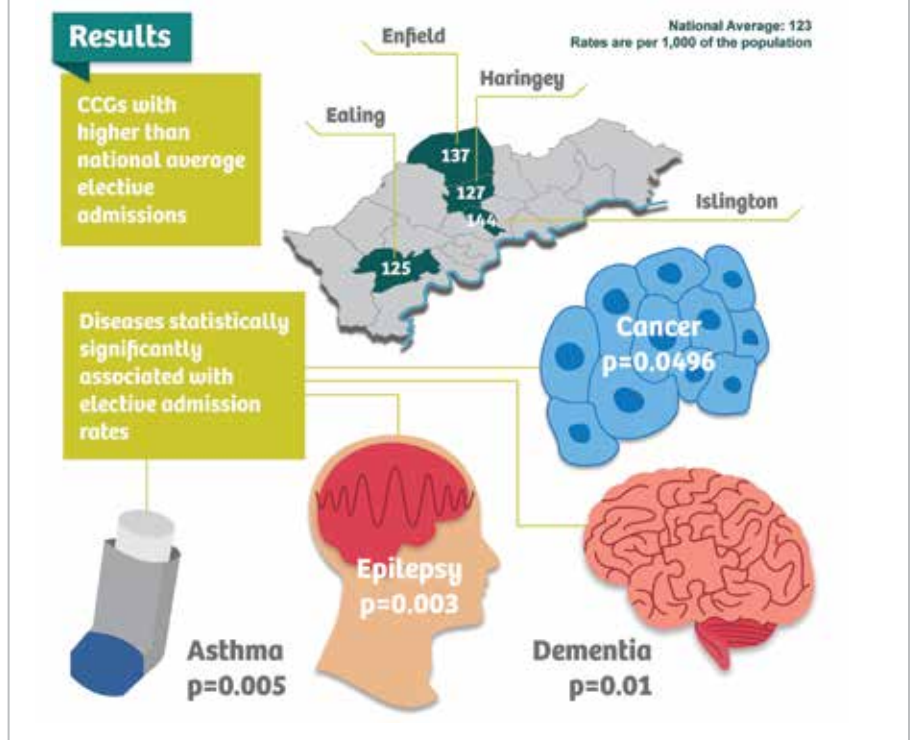


Figure 3. Association between disease prevalence and elective admission rates per 1,000 of the population in North London CCGs.

