

Analysis

Shortfalls of funding for general practice in deprived areas

INTRODUCTION

In April 2019 the Haxby Group, through a contract tender process, acquired two surgeries in a deprived area of Hull, Yorkshire. These are specifically located in Calvert and Newington with approximately 10 000 patients. This, in addition to six sites in York and three other sites in Hull, with centralised administrative services, make up the Haxby Group. The transformative process that has followed has highlighted many positive outcomes from the use of at-scale general practice and diversifying the workforce but has become increasingly hindered by funding deficits. In particular the use of the Carr-Hill formula and Quality and Outcomes Framework (QOF)-driven payments negatively impact a practice's ability to provide appropriate care in deprived populations.

The population served by this new contract is predominantly young (Figure 1). The area, like most of Hull, is especially high on the Index of Multiple Deprivation, scoring 43.7, compared with 28.1 at another Haxby practice in Hull and 10.4 in York. As is often seen in deprived areas, there is a high incidence of drug and alcohol misuse plus mental health problems. Alongside this, 9.0% of the patients are recorded with obesity and 55.9% as smokers. However, given the average age of the population, most chronic diseases have a prevalence below the clinical commissioning group (CCG) and national averages (Table 1).

HEALTH INEQUALITY AND DEPRIVATION

Public Health England data from 2016–2018 show life expectancies from birth for Hull to be 76.0 years for males and 80.2 years for females (79.6 years and 83.2 years respectively nationally).¹ These figures have shown no improvement over the last decade, which is in keeping with the recent Marmot report that demonstrated this trend, particularly in deprived communities of the north.² Using last year's data, the average age at death for these two sites in 2019 was 69.4 years for males and 79.1 years for females, which is in keeping with Hull CC data showing life expectancy to be lower in the more deprived areas.³

Records from these two Hull practices show 45.0% of deaths in a 6-month period recorded with a malignancy as the primary cause of death; nationally this figure is 28.0% of all deaths.⁴ Previous studies have shown the north east of England to have higher

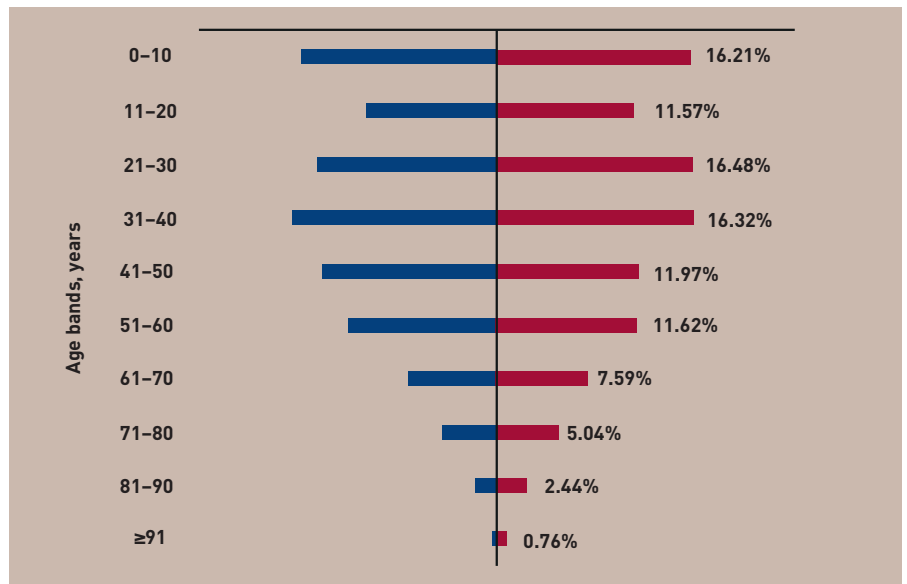


Figure 1. Patient age distribution in years of males (blue) and females (red) at Calvert and Newington in 2019.

incidences of cancer.⁵ Data from the cancer register of our Hull practices has shown an incidence of 18.2 per 1000 compared with 12.2 per 1000 in Kingswood (the least deprived area of Hull). Lifestyle factors such as smoking, alcohol consumption, and obesity are all known to be causative but late intervention and treatment likely also play a role.

Hart first described the inverse care law where *good medical care tends to vary inversely with the need for it in the population served*.⁶ Historically at these practices there has been a high did not attend (DNA) rate and low numbers of performance indicators such as medication and chronic disease reviews, signifying the poor healthcare prevention and engagement for this population. The inaccessibility and lack of adaptation to services, partly due to inadequate funding alongside poor staff recruitment, has left a service where those in greatest need do not receive the primary care services required.

WORKFORCE AND SYSTEM CHANGES

To help address this there has been a workforce transformation at these sites. Having previously been predominantly staffed by locum GPs these sessions have been reduced, not only for cost benefit but also to allow more ownership and continuity of care for patients. This has largely been achieved but has been hindered by ongoing recruitment difficulties in Hull, with 10 GP sessions per week still requiring locum cover currently. The strategy has also involved

increasing the nursing staff and introducing primary care practitioners who are used throughout the other sites within the Haxby group with proven benefit.⁷ This has resulted not only in improvements in appointment availability due to the diversified workforce but also dramatic increases in chronic disease reviews, most notably diabetes increasing from 7 to 220, plus 1155 more medication reviews (both comparing the same quarter in subsequent years to allow for seasonal differences). There have also been 227 fewer referrals to secondary care when comparing the same time periods.

Simultaneously there has been a reduction in the DNA rate, which is likely partly attributable to the second phase of change in June 2019 that brought in a GP-led triage system. The system redesign allows for more same-day appointments instead of predominantly pre-bookable appointments, as well as direction of patients to the most appropriate healthcare professional. There were 53 fewer DNA appointments with improvements across all age ranges when comparing the 6 months either side of the takeover. Therefore, reduced waiting times and easier access to healthcare professionals are benefiting this population who can often be hard to engage and comply with treatment.

NEGATIVE IMPACTS OF FUNDING FORMULAS

However, despite these positive results, ongoing difficulties have been faced

Table 1. Comparison of prevalence data for major comorbidities in Calvert and Newington, nationally,⁸ and Hull CCG⁹ for 2018/2019

Area	Calvert and Newington prevalence, %	National prevalence, %	Hull CCG prevalence, %
Asthma	5.80	6.05	6.08
Atrial fibrillation	1.40	1.98	1.65
Cancer	1.90	2.98	2.66
Cardiovascular disease primary prevention	1.20	1.13	1.42
COPD	2.40	1.93	2.81
Dementia	0.40	0.78	0.75
Diabetes	6.81	6.93	7.42
Heart failure	0.70	0.93	0.79
Hypertension	13.30	13.96	14.40
Mental health	1.20	0.96	0.97
Palliative care	0.40	0.40	0.28
Peripheral arterial disease	0.70	0.60	0.75
Secondary prevention of coronary heart disease	3.00	3.10	3.69
Stroke and transient ischaemic attacks	1.30	1.77	1.58

CCG = clinical commissioning group. COPD = chronic obstructive pulmonary disease.

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Competing interests

The authors have confirmed no competing interests.

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as research has shown the current flat distribution of funding in general practice does not allow for the increased complexity and higher workloads from serving deprived populations.⁹ The Carr-Hill formula has been used since 2004 to calculate basic core payments for practices. It was designed to compensate for different workloads by adjusting for factors such as a population age and sex, list turnover, standardised mortality ratio, and rurality but not any meaningful measures of deprivation. Previous studies have already shown this model to adversely affect deprived populations as the adjustments poorly represent the needs of these populations. One such study demonstrated that, for each 10% increase in the Index of Multiple Deprivation score, practice payments increased by only 0.06%.¹⁰ When the Carr-Hill formula is applied to these two practices in Hull it has led to a reduction in patient payments for the weighted data compared with the raw data. In quarter two post-takeover, this stood at a negative difference of 698 patients.

There are similar concerns regarding QOF-driven payments, which for most practices represent 8% of total income.¹¹ QOF is prevalence driven and, as previously mentioned, these practices have comparably low chronic disease prevalence rates due to the young age of the population. A review of QOF has already stated that it is not promoting the aims of the Five Year Forward View, such as holistic and patient-centred care.¹¹ This is felt even more so in deprived areas where this current model seems only to reward increasing chronic disease instead of promoting early intervention in high-risk populations to prevent it. This current

system does not help to address the reported increasing income-related health inequalities that the UK is experiencing.¹²

NEED FOR RE-EVALUATION

Currently the changes made through this transformative process have had a positive impact on some performance indicators and health outcomes as well as improved patient satisfaction. However, the financial penalties of serving a deprived population are hindering further change and improvement while contributing to the existing health inequalities. Given recent parliamentary commitments for extra NHS funding it is now crucial that there is greater understanding of what different communities need so a more structured and integrated healthcare system can be delivered. We believe this involves re-evaluating the suitability of tools such as the Carr-Hill formula, which no longer serves its purpose.

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