

The privatisation of NHS dentistry? A national snapshot of general dental practitioners

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There is a prevalent perception that NHS dental treatment is increasingly difficult to access. In order to access the validity of this perception data on the percentage of private and NHS patients treated by general dental practitioners (GDPs) were analysed. These data were derived from a national survey. The findings showed that GDPs can be divided into three broad groups on the basis of the proportion of patients treated privately or through the National Health Service (NHS). Approximately 50% of GDPs nationally concentrate on NHS dentistry (85% or more of their patients are treated under the NHS); 25% treat more than 70% of their patients privately; the remaining minority of practitioners fall between these two positions treating moderate proportions of both private and NHS patients. Regional differences also exist in the payment systems chosen by GDPs. The median percentage of private patients per dentist varies widely by area being around 50% in the South East and South West, 30% in London, 20% in the West Midlands and Eastern counties and less than 10% elsewhere. In a multivariate regression GDP characteristics were also significant in explaining the median percentage of private patients per GDP.

The findings add to widely held concerns about access to NHS dentistry, though suggest that problems may be limited to certain areas of the United Kingdom.

Problems with access to NHS dentistry have received increasing attention. A recent survey by the firm Laing and Buisson, commissioned by the British Dental Association (BDA), reported that Health Authorities in England and Wales noted an increase in calls from the public about problems with access to NHS dentistry, particularly in certain areas of the country.¹ The concern that access to NHS dentistry is becoming increasingly

restricted is shared by the profession and the public.^{2,3} Two possible mechanisms exist: a shortfall in the numbers of GDPs in certain areas, or a shift amongst GDPs away from NHS treatment towards private practice and alternative systems of remuneration. It is this latter mechanism which has received the most attention. However, surprisingly there is no published research which examines the relative proportions of private and NHS dentistry carried out by individual practitioners. Such research could not only identify the extent to which practitioners choose to practice within a particular funding framework, but could also provide an insight into the factors that influence an individual's choice. In this paper we use existing data to determine the distribution of NHS and private dentistry undertaken by GDPs in the UK, and exam-

In brief

- 50% of GDPs in the UK still treat virtually all of their patients on the NHS
- However, 1 in 4 GDPs treat 70% or more of their patients privately
- Private dentistry is concentrated in the South West, South East and London. In other areas of the country a large majority of patients are still treated on the NHS

ine the predictors of practitioners' choice of payment system.

Data on the percentage of private and NHS patients seen by GDPs were abstracted from a questionnaire of the career development of dental practitioners. The survey methodology has been reported previously.^{4,5} The survey sampled one in ten dentists from the General Dental Council register. The response rate was 66.6% using a two-phase methodology. Among other information respondents indicated the percentage of their practice patients who received treatment on NHS schedules or via private schedules or insurance schemes (the 'private' sector). Respondents who did not identify themselves as GDPs and those who were no longer practicing were excluded from the sample used here. In all there were 1,260 GDPs in the present sample.

Simple graphical methods illustrate the distribution of private-NHS patient mix amongst GDPs. Univariate and multivariate statistics were used to assess differences in private-NHS patient mix according to characteristics of GDPs and the geographic areas in which they practice.

The proportion of patients treated through private and NHS remuneration

Figure 1 shows the distribution of private and NHS patients amongst the sample of GDPs. The horizontal axis shows the percentage of patients that GDPs stated were

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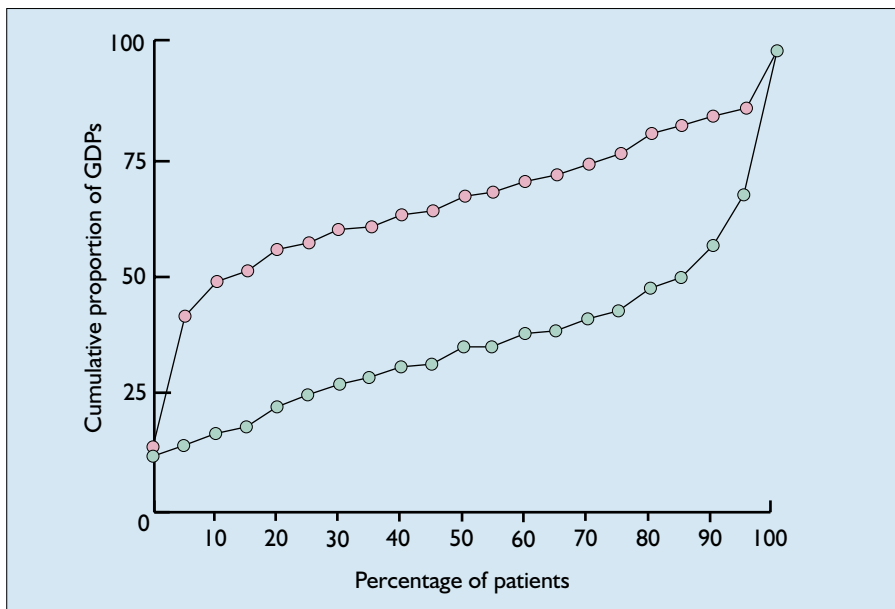


Fig. 1 Private/NHS mix of UK GDPs. Red, private; green, NHS.

Predictors of variation in patient mix

In order to explore factors which might underlie these differences, univariate comparisons were made of patient mix according to five characteristics of the GDP and their practice. GDPs were sorted into 5 groups for our purposes: solely NHS; solely private; mainly NHS (over 60%); mainly private (over 60%) and mixed (40–60% NHS) which corresponded to the shape of the distribution. The summary of these tests is presented in Table 1 which also gives the categories for each factor.

The type of post held, treatment speciality, gender and years since qualification

treated privately or via the NHS respectively. The vertical axis shows the cumulative proportion of GDPs in the survey who stated they treated at least this percentage of their patients in each way respectively. Figure 1 demonstrates the current polarisation of general practice dentistry in the UK. The NHS plot shows that most still concentrate on NHS patients — reading from the graph 50% of GDPs are treating 85% or more of their patients via the NHS. However, the graph also shows that about 1 in 4 GDPs saw 70% or more of their patients privately. The raw data also indicated that 10% of GDPs have opted out of the NHS entirely seeing only private patients. There were very few GDPs in our sample who treated an even mix of patients under the NHS and privately.

Regional variation

Regional differences in NHS-private patient mix were also examined. The data were sorted into the 13 Government Office Regions (GORs): East-Midlands, Eastern, London, Merseyside, North-East, North-West, Northern Ireland, Scotland, South-East, South-West, Wales, West-Midlands and finally Yorkshire and Humberside. The percentage of patients treated privately by the ‘average’ dentist (defined by the median) in each GOR is shown in Figure 2. The percentage of patients treated privately by the median dentist in a region varied from 50% in the South-East and South-West to 30% in London, 20% in Eastern, 12.5% in West-Midlands and 5% and less in the remaining regions. Dunnett ‘C’ tests (not reported) confirm the impression that GDPs in the ‘south’ (encompassing the South-East, South-West and London) are treating high proportions of private

patients whilst the ‘north’ (Yorkshire and Humberside, Scotland, Merseyside, Northern Ireland and North-West) is still dominated by NHS provision. GDPs in the remainder of the country are still predominantly NHS providers but there is a clear private component.

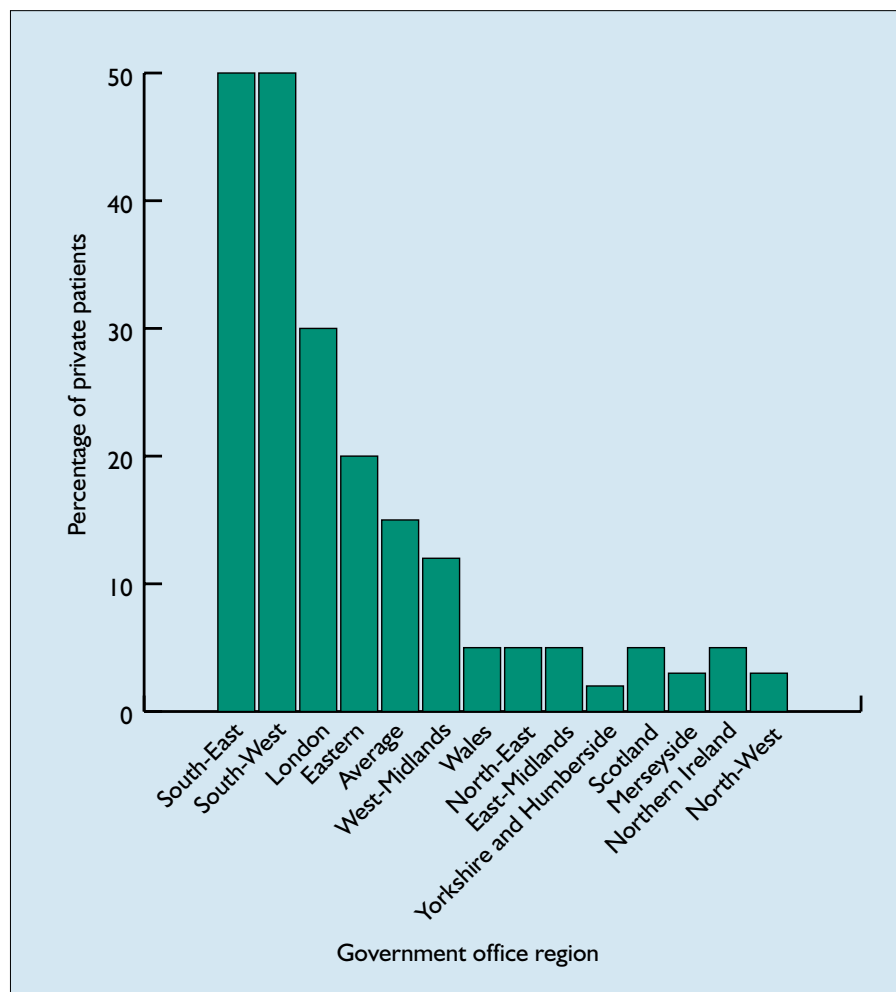


Fig. 2 Median percentage of private patients by region

Table 1		The influence of GDP and practice characteristics on patient-mix		
Characteristics	χ^2	d.f.	p-value	Direction of differences
Type of post	89.076	12	<0.001*	Sole proprietors: more likely private Associates: more likely NHS Partners: more likely mostly private Others: more likely private
Treatment specialty	18.167	8	0.020*	General practice: more likely mixed Orthodontics: less likely mixed Others: less likely mixed
Gender	27.848	4	<0.001*	M: more likely mostly or all private F: more likely mostly or all NHS
Hours worked	15.175	12	0.232	
Years since qualification	102.832	12	<0.001*	to 1969: more likely all private 1970-79: more likely mixed 1980-89: more likely mixed 1990+: more likely mostly/all NHS
Career break	2.109	4	0.716	

* significant at the 95% level

were all significantly related to the mix of private and NHS patients an individual GDP was likely to treat. The direction of these differences is also summarised in Table 1. Those qualified for longer, males and sole proprietors were more likely to be treating mostly or exclusively private patients. Specialists were more likely to be polarised between NHS and private patients — although not necessarily in private patients' favour — than those who described themselves as generalists.

Median regression analysis was carried out in order to assess the impact of practice, location and GDP characteristics on patient mix. The dependent variable was the median percentage of private patients treated by each GDP. The median was chosen due to the polarisation amongst dentists in terms of their patient mix. Independent variables included in the analysis were those used in the univariate analysis. The results are reported in Table 2.

The constant represents the base-line case, indicating that a male, newly qualified, sole proprietor practitioner working in London would be expected to treat 32% of patients privately on average. Some caution is needed in interpreting the results in Table 2. Since the dependent variable is treated as unbounded, combining attributes can lead to anomalous results when characteristics are combined. For example, the predicted percentage of private patients for a 10 years qualified male orthodontist in Merseyside is negative. The main results however remain compelling — all area dummies are significant and in the direction found in Table 1. Being a partner rather than sole proprietor

is associated with a higher percentage of private patients, as is being qualified for longer, whereas being an orthodontist and being female are associated with a lower percentage of private patients.

Discussion and Conclusions

Most GDPs fall into one of two groups: those concentrating on NHS provision and those treating a large proportion of private

patients. Whether a particular GDP belongs to one or other of the groups differs according to GDP characteristics — most strikingly the area in which they practice. Our results reinforce the findings in recent BDA surveys of patients² and health authorities¹ that the availability of NHS dentistry is becoming regionalised, and suggest some of the underlying reasons for this.

Clearly the area in which a GDP resides has a great effect on their patient mix. All areas are significantly different to London with the median percentages of private patients treated in the South East and South West 14% and 12% higher than in London respectively. GDPs in all other GOR areas see significantly fewer private patients as a proportion of their total patients than in London. Additionally, the position occupied by a GDP is important. Partners in practice are likely to see a greater proportion of private patients. This is probably related to seniority. Similarly specialism is related to patient mix — orthodontic practitioners

Table 2		Median regression with percentage of private patients as a function of gender, job status of GDP, treatment specialty and area		
Variable	Predicted change in % of private patients	p-value	95% confidence intervals	
Each additional year since qualification	0.27	<0.001*	0.11	0.44
Female	-4.35	0.04*	-8.53	-0.15
Partner	10.45	<0.001*	5.08	14.82
Associate	-3.72	0.12	-8.45	1.02
Other status	-2.97	0.26	-8.15	2.20
Orthodontist	-9.41	0.01*	-16.80	-2.01
Other specialist	4.69	0.17	-2.05	11.43
Career break	2.55	0.17	-1.11	6.20
Hours per week	-0.04	0.67	-0.22	0.14
East Midlands	-26.05	<0.001*	-34.28	-17.82
Eastern	-11.18	<0.001*	-18.39	-3.96
Merseyside	-29.72	<0.001*	-41.22	-18.23
North East	-28.45	<0.001*	-37.61	-19.29
North West	-28.47	<0.001*	-35.13	-21.80
Northern Ireland	-26.12	<0.001*	-35.21	-17.03
Scotland	-27.29	<0.001*	-34.03	-20.54
South East	15.28	<0.001*	9.58	20.97
South West	13.32	<0.001*	6.83	19.81
Wales	-24.53	<0.001*	-32.48	-16.58
West Midlands	-19.14	<0.001*	-26.31	-11.96
Yorkshire and Humberside	-29.15	<0.001*	-36.66	-21.63
Constant	32.11	<0.001*	22.03	42.19
N = 1144	Pseudo-R ² = 0.12			

*significant at the 95% level

are significantly more likely to see NHS patients, presumably since most of their patients are exempt from charges.

A number of potential weaknesses may be identified in this study which limit the inferences which can be drawn, and which suggest directions for future research. Although, the data were not collected for the specific purpose of exploring the treatment mix of GDPs there is no reason why this should have influenced the accuracy of the responses. The responses given by the GDPs were based on their own judgements of the proportion of patients treated through each system of remuneration. The general accuracy of such information is unknown, though it seems probable that most GDPs will have an idea of the source of their income. More accurate and objective measures of the proportions of private, and NHS work undertaken could be developed, though these would presumably have to be practice based.

More research is clearly needed to identify what it is about 'area' that affects GDPs treatment to such an extent. One possibility is the available number of GDPs in an area — where there are fewer GDPs, established practitioners may feel able to encourage patients to pay private fees without fear of their patients defecting to attend another GDP. This seems an unlikely explanation since there are more GDPs per head in the south than in the rest of the country.⁶ More promising explanations are the socio-economic and demographic characteristics of

the areas — or rather the people within them. Some preliminary work by the authors (not reported) has shown that there is a high and significant correlation between the percentage of the population in different social classes and income brackets and the percentage of private patients by GOR area. Intuitively, the localised area in which a GDP operates is likely to be more of an influence than the highly aggregated GOR region in which (s)he resides. Although at present such information is not available, future research linking census-level information to GDP postcode areas should be possible.

More information is also needed on patient characteristics. The present study demonstrates that there are clear differences in the proportion of NHS treatment undertaken in different areas. It is important to identify the impact of these findings on access to dental services, particularly for less well-off patients.⁷ Finally, the findings from this research should be updated periodically to track the development of private practice — especially since a growing proportion of young dentists are considering entering private practice.⁸

This is the first published research to demonstrate a relationship between the percentage of private patients treated by a general dental practitioner and characteristics of the practitioner and the area in which they practice. It confirms that there is significant variation by area and GDP characteristics. Further research is required to

identify whether such variation has an impact on patient care, and if so how the availability of NHS treatment in certain areas could be increased. General dental practitioners might be encouraged through interventions aimed at making NHS dentistry in specific areas more lucrative, satisfying and secure.⁹

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