

Unwelcome customers? The epidemiology of removal from general practitioner lists in Sheffield

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SUMMARY

Background. The 1990 contract and the 1991 fundholding scheme encouraged speculation that general practitioners (GPs) may remove patients from their lists for financial reasons. Despite assertions that patient removals are increasing, little evidence exists on the number or trends in removals.

Aim. To describe the epidemiology of removals by time, place, and person, and to determine whether removals have increased in recent years.

Method. Descriptive analysis of routine data relating to all removals of Sheffield residents from GP lists during 1991–1996.

Results. Removal from a doctor's list was a rare event (2.4 per 1000 patients per year) that did not become more common over the period examined. Removal rates varied by age, sex, and practice, with relatively high rates among children, young women, and the over-75s. There was a significant tendency for higher removal rates in more deprived parts of the city.

Conclusion. Removal rates have not increased in Sheffield. The reasons for the variation in rates by age, sex, and practice are unknown. The higher rates noted in the under-fives and young women are consistent with the possibility that the 1990 target payment scheme may have increased removal rates in these age groups.

Keywords: removals; struck off; GP lists.

Introduction

THE national terms of service for GPs have always included provision for doctors to remove patients from their lists: an important safety-valve for a service that depends upon close and trusting relationships.¹ The introduction of the 1990 GP Contract and the 1991 fundholding scheme substantially altered the environment within which such relationships must be maintained. The former introduced new obligations, including the requirement to offer annual examinations to patients aged 75 or over, and target payment schemes for childhood immunization and cervical cytology. The latter required fundholding practices to constrain spending on certain services within a fixed budget. These developments introduced a 'perverse incentive' to remove certain patients — such as those refusing immunization or cervical cytology, or incurring high costs to a fundholder's budget — from a doctor's list for reasons *other* than breakdown of the relationship.

Media and political speculation that doctors may be removing

patients from their lists for essentially financial reasons has been encouraged by anonymous statements by some doctors that they remove patients they perceive as 'high demand'.^{2,3} One MP has claimed that: 'The increase in the number of patients who are being struck off doctors' lists will continue', as a result of these incentives.⁴ The Royal College of General Practitioners has responded by issuing guidelines on the removal of patients.⁵

Given this, it is surprising that there has been very little research to identify how many removals occur and whether the rate of removals really is increasing.⁶ A search of six bibliographic databases identified only two previous studies in this area.

McDonald *et al* conducted a telephone survey of 89 GPs who had removed one or more patients from their list during a three-month period.⁷ Excluding those removed because they moved away, the commonest reasons for removal were 'unreasonable requests for medication' (mostly for addictive drugs), 'unreasonable requests for home visits', and 'threatening or rude behaviour to doctors or staff'.

Perry wrote to all 97 FHSAs in England and Wales, of whom 35 replied, and found a modest increase in removals during 1990–1994, with removal rates per GP higher in urban than rural areas.⁶ She also asked GPs in Kent why a doctor might deregister a patient. The commonest reasons given were violent or abusive behaviour, 'inappropriate use of services', loss of trust, and persistent non-compliance.

Given the almost complete absence of quantitative information on patient removal, we undertook a simple descriptive study to determine its epidemiology by time, place, and person, and to discover whether or not there had been an upward trend in removals in recent years.

Methods

The analysis was based on routine health authority data covering the five-year period from 1 April 1991 to 31 March 1996, recording all Sheffield residents removed at the request of a GP from practices on the Sheffield list (between 109 and 114 practices over this period). This data related to a registered population of approximately 530 000 patients, and, for each removal, recorded the name, address, age, and sex of the patient, the registered GP, and the date and reason for removal given by the GP. Only three possible reasons for removal were allowed: 'moved out of area', 'violence' (from April 1994 only), or 'other'.

Since a doctor may request the removal of a single individual or a group of related individuals at the same time, we distinguished between *persons* removed and *groups* removed. The data did not record whether a given removal was singular or one of a group, so we defined the removal of any individuals sharing the same address and who were removed within seven days of one another as constituting a group. These groups were classified according to the number of adults and children each contained.

For analyses by practice, those practices that opened or closed during 1991–1996 were excluded, leaving 109 practices in the analysis. The calculation of practice removal rates was based on estimates of Sheffield resident list sizes averaged over the period

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for which list data were available (1993–1995).

Finally, removal rates by electoral ward were calculated using the 1991 census to provide the population denominator. The Townsend score for each ward was used to test for an association between removal rates and material deprivation.⁸

Results

Over the five-year period examined, there were a total of 6435 removals from GP lists for all reasons. This represents a mean of 1287 removals per year, or 2.4 removals per 1000 registered Sheffield residents per year.

Removals by year and reason

Table 1 shows removals grouped by year and reason for removal. Approximately one-third were a result of patients moving outside the practice area, and only a small number to violence. If those who moved are disregarded, there remains a mean of 828 removals per year, or 1.6 per 1000 registered Sheffield residents per year.

There is a sharp fall in removals after 1991/92. This was partly accounted for by the high number of removals owing to relocation in this year, which may be a reflection of the removal of ‘ghost’ patients from practice lists in response to the 1990 contract. In the absence of data before 1991/92 it is not possible to know if this was an exceptional year. The figures for the following four years do not suggest that removals are increasing.

Ninety-four per cent of all patients removed were removed on only one occasion. Some were removed on multiple occasions, and, of those removed in 1991/92 for reasons other than relocation, 9% were removed on a second or subsequent occasion during the five-year period, again for reasons other than relocation.

Removal by age and sex

As Figure 1 illustrates, age- and sex-specific mean annual removal rates (for non-moving patients only) showed considerable variation (χ^2 for males = 504, $P < 0.001$; χ^2 for females = 756, $P < 0.001$). The highest rates occurred in children under 10 (2.8 per 1000) and young adults aged 20–29 (2.5 per 1000). The removal rate remained low after the age of 30, but increased

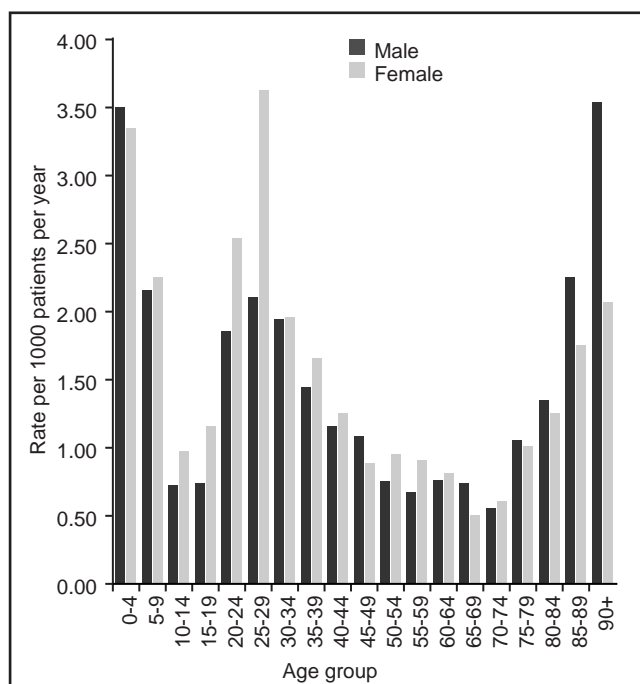


Figure 1. Removals from GP lists (not due to change of address).

markedly with age in those aged over 75. Overall, the mean female removal rate (1.7 per 1000) was slightly higher than that for males (1.4 per 1000).

Removal of patient groups

The allocation of individual removals to groups revealed that the 4138 removals for reasons other than relocation comprised 2641 groups.

The composition of removed groups, including those containing only one person, is shown in Table 2. For non-movers, over one-quarter of groups consisted of more than one person living at the same address. Approximately 53% of all removals for rea-

Table 1. Individual removals by reason and year.

Reason	1991/92	1992/93	1993/94	1994/95	1995/96	All years
Moved out of area	784	273	277	461	482	2277
Violence ^a	0	0	0	15	5	20
Other	991	1010	736	726	675	4138
All reasons	1775	1283	1013	1202	1162	6435

^aNot recorded until April 1994.

Table 2. Composition of removed patient groups.

Group composition	All removed groups		Removed groups of non-movers	
	n	Percentage	n	Percentage
One adult, no children	3144	72	1745	66
Two or more adults, no children	340	8	256	10
One child, no adults	272	6	200	8
Two or more children, no adults	43	1	24	1
Lone female adult with children	262	6	179	7
Lone male adult with children	46	1	26	1
Two or more adults with children	280	6	211	8
Total	4387	100	2641	100

sons other than relocation occurred as part of a multiple-removal group.

Over the five-year period, 258 children aged under 16 were removed for reasons other than relocation, apparently without an adult being removed at the same time. Of these, approximately two-thirds were aged under five years.

Practice variation

The mean annual removal rate for non-movers varied widely between practices. The rate was under one removal per 1000 registered patients per year for 61% of practices, and 1–3 removals per 1000 patients per year for a further 31% of practices. One practice recorded a rate of 16 removals per 1000 patients per year. Of the seven practices with the highest annual mean removal rates over the two-year period, five were in the top seven in each individual year, and none were fundholding practices.

Variation by electoral ward

The mean annual removal rate for each of the 29 electoral wards in Sheffield showed a moderate correlation with deprivation (Spearman's rank correlation = 0.58; $P < 0.01$), suggesting a tendency towards higher removal rates in the more deprived parts of the city. Because of the strong clustering of removals by practice, this analysis was repeated omitting the 10 practices with the highest removal rates, yielding a less marked but still significant correlation (Spearman's rank correlation = 0.50; $P < 0.01$).

Conclusions

Our results suggest that concern over ever-increasing numbers of patient removals may be misplaced. Removal from a doctor's list in Sheffield was a rare event that did not become more common over the period examined. Nonetheless, there is marked variation in the removal rate between different age groups, and between one practice and another.

What accounts for the observed variation in removal rate by age and sex? In the absence of a recorded reason for each removal, any answers can only be speculative. However, there are at least two possibilities that further research might investigate.

First, it may be relevant that the age–sex bands with relatively high removal rates are also those that make relatively high use of primary care services.⁹ The surveys of GPs' reasons for removal suggest that 'unreasonable' or 'inappropriate' demand for services may be a factor behind some proportion of removals, and, like overall demand, inappropriate demand may be relatively high for young children, young women, and older adults. If it were possible to relate removal data to routine data on service use at an individual level, then this question could be examined directly, but this is not currently practical.

Secondly, the peaks in removal rate for young children and young women broadly correspond with the target groups for childhood immunization and cervical cytology as defined by the 1990 GP contract. As noted, in setting targets for these groups, the contract introduced an incentive to remove patients who refused such interventions or who were hard to reach. One might also speculate that the requirement to visit patients aged 75 or over every year may have made this group relatively less attractive. There is the possibility that some of the requirements of the 1990 contract resulted in a relative increase in patient removals in these groups, and this would be consistent with the variation reported here. Analysis of age/sex-specific rates of removal before and after 1990 would help to clarify this issue. It may also be the case that a proportion of removals of older patients fol-

lows admission to a nursing home, although it was not possible to identify these in the available data.

The central limitation of any analysis of removals is that the routine data do not record an adequate description of the reason for removal. Only three very crude categories are available in Sheffield, of which the most interesting is simply 'other'. It is unlikely that we can gain a deeper understanding of the existing pattern of removals and the reasons behind it without more information on the reason for the removal request.

Guidelines recently published by the Royal College of General Practitioners argue that a high level of demand by a patient never justifies removal, and that refusals to undergo cervical cytology screening or have one's children immunized 'do not normally justify removal'.⁵ The data reported here suggest that there may be some grounds for concern that a proportion of removals are, in fact, being undertaken for just such reasons.

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