

# General practice

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## Effect of fundholding on waiting times: database study

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### Abstract

**Objectives:** To determine whether fundholding patients have shorter waiting times for surgery than non-fundholding patients and to establish if any such differences resulted from practices attaining fundholding status.

**Design:** Comparison of waiting times of fundholding and non-fundholding patients for elective surgery covered by the fundholding scheme at four providers over four years. Comparison of the waiting times for patients of practices in their last year outside and first year inside the fundholding scheme with those for patients of practices remaining non-fundholding.

**Setting:** West Sussex.

**Subjects:** Over 57 000 patients on the elective waiting list who had operations purchased by a health authority or fundholding practice during 1992-6. Patients with booked or planned elective admissions were excluded.

**Main outcome measures:** Waiting times for patients of fundholding and non-fundholding patients.

**Results:** Patients of fundholding practices had significantly shorter waiting times than those of non-fundholders for all four providers and over all four years. Waiting times for patients did not fall until the year that the practices joined the fundholding scheme.

**Conclusions:** Fundholding shortens waiting times. This may be because purchasing of elective surgery is best done at a practice level or because fundholding practices are funded overgenerously.

### Introduction

The introduction of market forces into the NHS in the 1991 reforms has caused contentious debate on equity. The debate has largely centred on two issues: firstly, whether the system will induce what is known as cream skimming,<sup>1</sup> discrimination against expensive users of the service, and, secondly, whether a two tier service has developed that favours patients of fundholding practices. Claims that explicit and systematic inequities have resulted from the introduction of fundholding have been based on anecdotal evidence.<sup>2</sup> They have been countered by assertions that market systems tend to resist arbitrary behaviour<sup>3</sup> and are thus a persistent equalising force.<sup>4</sup> This study was conducted to assess the effect of fundholding on the second of these equity issues.

### Subjects and methods

The patient information database operated by the West Sussex Health Authority was used to obtain details of waiting times for patients at four NHS providers encompassing six hospitals in four trusts. Waiting time was defined as the time from patients being placed on a waiting list after attending outpatients to the date of their admission for an operation (excluding any period of deferral). The patients had elective surgical procedures covered by the fundholding scheme in the financial years 1992-3, 1993-4, 1994-5, and 1995-6. One provider became a trust in April 1993, and the three others became trusts a year later. The hospitals provided the same range of operations covered by the scheme to both fundholding and non-fundholding patients in broadly similar case mixes. Apart from the few cases where no waiting time was recorded (which were excluded from the study) the data included the patient's general practice, waiting list classification, diagnosis, sex, and date of birth plus the purchaser of the operation and the date on which fundholding practices joined the scheme.

Accuracy of the patient information database was checked by comparing data on 40 patients from a large fourth wave fundholding practice with data in their medical records. The patients included those who had operations both before and after the practice entered the fundholding scheme. In no cases were there serious discrepancies.

The overall waiting list has three separate categories.<sup>5</sup> Firstly, elective waiting list patients (about 61% of the NHS patients who received operations within the fundholding scheme at the hospitals over the four years) are placed on the list without having their admission planned or booked for a specific time. These are predominantly the patients given a routine clinical urgency. Secondly, elective planned patients (some 10%) are given a date or at least an approximate time of admission as a planned sequence of clinical care. They tend to be called in at regular intervals for an investigative procedure. Thirdly, elective booked patients (around 29%) are given an admission date for the procedure at the time the decision to admit is made. These are commonly the patients given an urgent clinical status. This study included only patients given no indication of their time of admission, as preliminary analysis suggested that this was the area with greatest discrepancy between fundholding and non-fundholding practices. Patients who joined the waiting list when their practice was non-fundholding but who

had surgery after the practice had become fundholding were also excluded.

Differences in waiting times between fundholding and non-fundholding practices over the four years were determined by analysis of variance, with a 95% level of confidence taken to be significant. To determine whether any such differences were a consequence of practices attaining fundholding status, patients of practices in their preparatory year (the final year outside the fundholding scheme) were separated from the rest of the non-fundholding population. Differences in the waiting times of these two non-fundholding populations were tested for significance. The waiting times of patients in the year of joining the fundholding scheme were also compared with the waits of the continuing non-fundholding population that year. Since data for the preparatory year were not available for practices that became fundholders in 1992-3 they were excluded from this analysis.

## Results

Fundholding patients on the elective waiting list of each provider had significantly shorter waiting times than patients of other practices for all four years (table 1). Increases in waiting times for non-fundholders during the four years were not associated with reduced waits for fundholding patients over the same period.

In 10 cases out of 12 there was no significant difference between the waiting times of patients from non-fundholding practices in their preparatory year compared with the rest of the non-fundholding population at the same provider. In one case patients in the preparatory practices had shorter waits than other non-fundholders while in the other they had longer waits (table 2). However, in the year after entering the fundholding scheme patients had significantly shorter waiting times than patients of non-fundholding practices for all hospitals and all years (one provider did no operations on patients of first year fundholders in 1995-6) (table 3).

## Discussion

This study shows that patients of fundholding practices have significantly shorter waiting times for elective surgery covered by the scheme than patients of non-fundholders. Since the difference between fundholding and non-fundholding practices does not appear until the first year of fundholding it seems likely that it is something to do with fundholding status that reduces the waiting times.

These findings differ from the judgment of the Audit Commission that although seasonal variations could exist between fundholding and other patients, these are evened out over the whole year and overall waits are usually similar.<sup>6</sup> However, the Audit Commission report used data from one hospital over one year (personal communication, Audit Commission). The analysis included all NHS patients who had fundholding operations at the hospital that year and so combined all three categories of the waiting list. If waiting times for planned and booked patients are less likely to be dependent on the type of purchaser this would tend to equalise differences between patients on the elective waiting list.

The report also calculated average waiting times of fundholding and non-fundholding patients according to status of their practice at the time of the operation. Hence people who might have spent a long period on the list as a non-fundholding patient would be counted towards the average waiting times of fundholding patients if they had the operation after the practice joined.

When my study's data were reanalysed using the Audit Commission's methods, the waiting times for fundholding patients were no longer significantly shorter for six out of the 16 calculations (four hospitals for four years). It therefore seems feasible that the Audit Commission's approach might have hidden sig-

**Table 1** Mean waiting times of patients of non-fundholders and fundholders on the elective waiting list for operations covered by fundholding scheme of four providers

Financial year	Non-fundholders		Fundholders		P value
	Days	No of patients	Days	No of patients	
<b>Crawley Horsham</b>					
1992-3	148.4	2655	111.8	536	<0.0001
1993-4	214.2	2067	129.2	855	<0.0001
1994-5	193.9	1865	119.1	1316	<0.0001
1995-6	194.6	1897	163.2	1326	<0.0001
Change over period	46.2 days (31.1%)		51.4 days (46.0%)		
<b>Mid Sussex</b>					
1992-3	94.6	1788	61.5	472	<0.0001
1993-4	112.9	1473	68.9	574	<0.0001
1994-5	118.3	1666	80.3	980	<0.0001
1995-6	125.8	1737	75.0	1001	<0.0001
Change over period	31.2 days (33.0%)		13.5 days (22.0%)		
<b>Royal West Sussex</b>					
1992-3	262.8	1179	92.9	24	0.0002
1993-4	270.4	1037	153.3	193	<0.0001
1994-5	282.0	1279	171.5	467	<0.0001
1995-6	205.8	1751	108.7	1049	<0.0001
Change over period	-57.0 days (-21.7%)		15.8 days (17.0%)		
<b>Worthing and Southlands</b>					
1992-3	129.1	6555	70.0	456	<0.0001
1993-4	134.4	6221	96.6	1031	<0.0001
1994-5	129.6	4942	103.7	2163	<0.0001
1995-6	136.1	4228	127.7	2587	0.0075
Change over period	7.0 days (5.4%)		57.7 days (82.4%)		

**Table 2** Mean waiting times of patients of continuing non-fundholding practices and of practices in their final year outside the fundholding scheme on the elective waiting list for operations covered by fundholding scheme of four providers

Financial year	Continuing non-fundholders		Final year non-fundholders		P value
	Days	No of patients	Days	No of patients	
<b>Crawley Horsham</b>					
1992-3	149.9	2202	141.1	453	0.3042
1993-4	211.0	1646	227.0	421	0.1210
1994-5	194.0	1863	163.0	2	0.8073
<b>Mid Sussex</b>					
1992-3	95.0	1712	85.3	76	0.4494
1993-4	114.0	1244	106.8	229	0.4306
1994-5	118.8	1630	97.8	36	0.3402
<b>Royal West Sussex</b>					
1992-3	266.7	997	241.5	182	0.1642
1993-4	274.8	953	220.4	84	0.0167
1994-5	282.5	938	280.6	341	0.8658
<b>Worthing and Southlands</b>					
1992-3	129.0	5825	129.7	730	0.9052
1993-4	134.1	4991	135.9	1230	0.6652
1994-5	128.2	4700	156.6	242	0.0005

**Table 3** Mean waiting times of patients of non-fundholding practices and of practices in their first year inside the fundholding scheme on the elective waiting list for operations covered by fundholding scheme of four providers

Financial year	Non-fundholders		1st year fundholders		P value
	Days	No of patients	Days	No of patients	
<b>Crawley Horsham</b>					
1993-4	214.2	2067	135.3	451	<0.0001
1994-5	193.9	1865	160.5	488	0.0002
1995-6	194.6	1897	—	0	—
<b>Mid Sussex</b>					
1993-4	112.9	1473	70.3	136	0.0001
1994-5	118.3	1666	62.2	222	<0.0001
1995-6	125.8	1737	52.2	20	0.0136
<b>Royal West Sussex</b>					
1993-4	270.4	1037	228.1	253	0.0021
1994-5	282.0	1279	204.9	157	<0.0001
1995-6	205.8	1751	82.3	338	<0.0001
<b>Worthing and Southlands</b>					
1993-4	134.5	6221	78.4	418	<0.0001
1994-5	129.6	4942	80.0	768	<0.0001
1995-6	136.1	4228	95.9	147	<0.0001

nificant differences in the waiting times of patients on the elective waiting list. However, in 10 cases the fundholding patients still had shorter waiting times.

It has been suggested that in making purchasing decisions health authorities are well placed to consider community wide public health issues whereas general practitioners are better at gaining specific benefits for patients like shorter waiting times, partly because of their closeness to patients.<sup>7</sup> The results of this study may support the effectiveness of fundholders in purchasing elective surgery. However, the reduced waiting times of fundholding patients could simply be a result of overfunding of these practices. Further research is needed to test this hypothesis.

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### Key messages

- Debate on the creation of a two tier system as a result of general practice fundholding is based largely on anecdotal evidence
- Patients of fundholding practices on the elective waiting list at four NHS providers in West Sussex over four years had significantly shorter waiting times for the elective surgery covered by the fundholding scheme than did non-fundholding patients
- Waiting times for patients of practices in the year before fundholding did not differ from those of patients of other non-fundholders
- The shorter waiting times of fundholding patients can be attributed to the participation of their practice in the fundholding scheme

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- 1 Matsaganis M, Glennerster H. The threat of 'cream skimming' in the post-reform NHS. *J Health Econ* 1994;13:31-60.
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- 5 NHS Executive. *Data manual: hospital services manual. Version 2.0*. London: HMSO, 1994.
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### When I use a word...

#### Hippopotamostrosesquipedalian

What is the longest English word? Not a difficult question to answer, you might think, but the winner is not so easy to decide. The first problem is to define what one means by a word. For example, Mrs Byrne in her *Dictionary of Unusual, Obscure and Preposterous Words* (no, I'm not making it up) mentions a polypeptide enzyme whose name contains 1913 letters, consisting of the string of terms used to describe each of its 267 constituent amino acids; it starts methionyl-glutaminyllarginyl- and ends -threonyllarginylserine, and is better known as tryptophan synthetase. But is it a word? Not one that I've used recently. Leaving aside chemical monstrosities of this sort, we find a variety of considerably shorter, but still lengthy, concatenations specifically devised for humorous or other literary purposes. For example, the 51 letter chain that Thomas Love Peacock used in *Headlong Hall* to describe the different constituents of the human body osseocarnisanguineovisceri-cartilaginonervomedullary. Pretty comprehensive, but hardly a proper word, and you certainly won't find it in any dictionary, not even Mrs Byrne's, although she does include the 182 letter transliteration of the 170 letter Greek word used by Aristophanes in his play *The Ecclesiazusae* to describe the leftovers of last week's meals (don't ask). Now you might think that for proper words you should look in the standard dictionaries and find the longest. It's still not so

straightforward. In the second edition of the *Oxford English Dictionary* the longest word is a medical one: pneumonoultramicroscopic-silicovolcanoconiosis. And it's easy to work out what it means. When Greek athletes contested in the nude they oiled their bodies. Wrestlers then applied kovia (konia), a fine dust that gave them a better grip on each other. So a coniosis, like pneumoconiosis, is a disease caused by dust. In this case the dust is deposited in the lungs (πνευμονα, pneumona), is very fine (ultramicroscopic), and is derived from volcanic silica. Alas, this delightful word turns out not to be a word at all, being defined in the dictionary as "a factitious word alleged to mean 'a lung disease caused by the inhalation of very fine silica dust' but occurring chiefly as an instance of a very long word." What a pity. Ah well, now I shall have to fall back on the less charming hepaticocholangiochole-cystenterostomy.

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