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1 Surender R, Bradlow J, Coulter A, Doll H, Stuart Brown S. Prospective study of trends and referrals patterns in fundholding and non-fundholding practices in the Oxford region 1990-4. *BMJ* 1995;311:1205-8. (4 November.)

Fundholding has changed referral practice

EDITOR,—I disagree with Rebecca Surender and colleagues when they conclude that their study shows that fundholding has had little effect on general practitioners' referral rates.¹ In the context of the longstanding and inexorable increase in all phases of activity in the NHS, it is expecting a great deal that fundholders would have reversed this trend for outpatient referrals. It is more reasonable to ask whether fundholders, relative to non-fundholders, have slowed down the rate of increase in referral rates.

In the control practices chosen for the study the increase in NHS referral rates was 26.6% between phases 1 and 3 of the study. In the fundholding practices the increase was only 7.5%, a difference of 19.1%. On the basis of the fundholders' baseline referral rates of 107.3/1000 this represents a "saving" of 20.5 referrals per 1000 patients per year.

Applying this figure to the mean list size (13 044) of each of the fundholding practices means that 267 referrals per year, on average, have been avoided in each fundholding practice. In our district a typical outpatient appointment costs, at a conservative estimate, £50. The avoidance of 267 referrals per practice represents a cost saving of £13 370 per practice. In my district this would be enough to purchase at least 27 hip replacement operations.

I conclude that the study shows that fundholders have changed their referral decisions and that their rate of increase in NHS referral rates to specialist outpatient clinics was much lower than that in the control group of non-fundholders. This is an important achievement and has considerable cost saving implications.

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1 Surender R, Bradlow J, Coulter A, Doll H, Stuart Brown S. Prospective study of trends and referrals patterns in fundholding and non-fundholding practices in the Oxford region 1990-4. *BMJ* 1995;311:1205-8. (4 November.)

Fundholding reduces dependence on private sector

EDITOR,—As a general practitioner in one of the first wave fundholding practices involved in the prospective study of trends in referral patterns in fundholding and non-fundholding practices in the Oxford region,¹ I am not surprised that many of the suppositions which this study set out to investigate have been shown to be "unfounded." The researchers may have expected to see an increase in private referrals but we did not, as our aim in becoming fundholders was to improve access to NHS services. That our private referrals fell by 8.8%, whereas those from non-fundholding practices increased by 12.2%, probably reflects the fact that we were able to obtain improved access to NHS services and our patients (who previously had to respond to poor access by using the private

sector) were able to use the NHS. Not all patients using the private sector are insured, and our experience is that patients respond to poor access to NHS services by spending their own resources. Unfortunately, the non-fundholding practices in the Oxford region did not see such dramatic improvements in access times to specialist services—so their patients, unsurprisingly, responded by increasing their use of the private sector.

The authors conclude that fundholders' development of reinvesting savings in new practice based services did not encourage a shift away from dependence on specialist hospital services. There are several problems with this interpretation. Part of the rise is because we were reducing our dependence on the private sector; the authors have identified this. A further part is that some of the services we were referring to (vasectomies and female sterilisations, for example) were so inaccessible in the old NHS that many of these were done in the private sector and may not have been fully picked up by the practices, as patients were often referred through family planning clinics to private providers.

The fact that non-fundholders increased their referrals to specialist services at a faster rate than fundholders may also suggest that referrals from all general practitioners were rising and that fundholders managed to cap the rise and absorb the 8.8% reduction in use of the private sector and bring back into the NHS the services that were previously virtually inaccessible to patients.

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1 Surender R, Bradlow J, Coulter A, Doll H, Stuart Brown S. Prospective study of trends and referrals patterns in fundholding and non-fundholding practices in the Oxford region 1990-4. *BMJ* 1995;311:1205-8. (4 November.)

Authors' reply

EDITOR,—We agree that there are several possible explanations for the referral patterns observed in our comparison of fundholding and non-fundholding practices.¹ We are slightly surprised that James Dunbar and colleagues have assumed that a reduction in specialist referrals would be a beneficial outcome of fundholding. We certainly did not make that assumption, although it may have been the government's intention in introducing the scheme. Indeed, our paper pointed out that we were reassured to discover that fundholders' patients were not being deprived of specialist attention. If they have data on changes in referral patterns after the date on which our study ended, we hope that these will be published as we know of no evidence of such a change.

Kevin Perrett draws conclusions from our data which we believe are misleading. He is correct in pointing out that the rise in referral rates over the three phases of the study was steeper among the non-fundholding practices than among the fundholders, but he has ignored the point emphasised in our paper that four of the six non-fundholders were preparing to become fundholders in phase 3. This meant that their referral rates were probably not representative of the true underlying trend among practices outside the scheme. National figures show that new outpatient referrals to general and acute specialties rose by 10% between 1990 and 1993,² as compared with the 26% increase observed among non-fundholders in our study. We therefore attributed this steeper than expected increase to the fact that the method of budget allocation provides an incentive for fundholders to inflate their referrals in the preparatory year, although other explanations are of course possible.

R A Smith's interesting suggestion that patients' awareness of the advantages of fundholding leads

to a reduced demand for private consultations may be correct, but there are of course a number of other possible explanations, none of which could be adequately tested in our observational study. Interestingly, gynaecology was the only speciality that saw a decrease in NHS referrals, which does not support Smith's contention that part of the increase in fundholders' referral rates was due to the relocation of female sterilisations to the NHS from the private sector.

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1 Surender R, Bradlow J, Coulter A, Doll H, Stewart-Brown S. Prospective study of trends in referral patterns in fundholding and non-fundholding practices in the Oxford region, 1990-4. *BMJ* 1995;311:1205-8. (4 November.)

2 Department of Health. *Health and personal social services statistics for England, 1994 edition*. London: HMSO, 1994.

Computer based prescribing

Electronic BNF needs sophisticated hardware . . .

EDITOR,—Jeremy Wyatt and Robert Walton present an informative summary of the part that medical informatics can play in improving prescribing practices.¹ Their timely editorial coincides with the release of the CD ROM edition of the *British National Formulary*. Several problems with this electronic edition are cause for concern.

Firstly, the format requires a system based on Microsoft Windows, which many general practices do not have. Secondly, although the BNF is provided free to hospital doctors, £50 is required to subscribe to the electronic version—which is probably cheaper to produce. Finally, for the system to be acceptably quick for general use, I cannot see it running on anything less than a 486 based, IBM compatible machine with a large memory (>8 megabytes of random access memory) and a CD ROM drive. Many general practices—and many hospital networks—do not have such sophisticated machines. Unless there is yet another major outlay on the acquisition of computer hardware across the NHS, this wonderful initiative is not likely to be effective.

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1 Wyatt J, Walton R. Computer based prescribing. *BMJ* 1995; 311:1181-2. (4 November.)

. . . but Windows makes access easy

EDITOR,—The stand alone electronic BNF, available on CD ROM or disk, is the first of a range of eBNF products. The Windows platform was chosen for several reasons, most importantly because it allows presentation of *British National Formulary* text in a format that is similar to that of the familiar paper BNF. As it is a Windows application, the user can have the eBNF browser open at the same time as another application and shift between the applications. Finally, the Windows platform provides a relatively intuitive means of accessing and navigating the eBNF text. Further eBNF products are being developed and