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Prescribing incentive schemes in two NHS regions: cross sectional survey

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The introduction of fundholding in primary care in the United Kingdom contained prescribing costs, although the effect was modest and seemingly not accompanied by parallel improvements in the quality of prescribing.[1] With the advent of primary care groups in 1999 a new incentive scheme was devised to influence prescribing. Financial rewards to general practices could be linked more explicitly to improvements in the quality and appropriateness of prescribing than under fundholding schemes. The money had to be invested in improvements to services available to patients.[2] We surveyed prescribing indicators and financial rewards associated with such schemes in two NHS regions in England.

Methods and results

In 2000 we sent two questionnaires to the prescribing adviser of each primary care group in the 66 London and 79 South East regional offices of the NHS Executive. One hundred and twenty one (83%) responded with details about their incentive scheme, and 129 (89%) provided financial information on prescribing.

The table shows the categories of indicator most often included in the schemes. Quality based indicators were reported by 83% (100) and cost based indicators by 78% (94) of primary care groups. Some categories were used to indicate both quality and cost. Sixty three per cent of schemes (76) required the collection of data not based on prescribing analysis and cost (PACT), such as data from prescribing audits or reviews of repeat prescribing.

Prescribing costs ranged from an underspend of 7% to an overspend of 14% (median 4.5% overspend). Eleven (9%) primary care groups made no incentive payment to any practice, whereas 29 (22%) groups made some payment to every practice. Primary care groups offering rewards to a higher proportion of practices were as likely to have overspent their prescribing budget as those offering rewards to fewer practices (Spearman's correlation coefficient –0.15, P=0.10). Altogether 66 (61% of the 109 primary care groups that responded to this question) of primary care groups gave a reward only if practices had also achieved one or more of the quality indicators in their incentive scheme. The size of reward varied: 40 (70% of the 57 primary care groups that responded to this question) restricted the maximum payment to £3000 (€4900) or less, five made payments exceeding £10 000, and two made payments exceeding £20 000 per practice. Although 22% of primary care groups had declared that up to £45 000 per practice was available under the scheme, just two made payments of this magnitude. We did not find a significant relation between the size of reward offered or received and the prescribing overspend of the primary care group.

Comment

The lack of an association of the incentives with prescribing overspends in primary care groups implies an inefficient system, in which large rewards are not clearly connected with either cost or quality based prescribing achievements. Prescribing incentive schemes in primary care are characterised by a wide range of prescribing indicators and an emphasis on improving the quality and controlling the costs of prescribing. Over half of the groups included non-PACT based indicators, which generally favour quality improvement since PACT data alone tend to be more useful in controlling costs.[3] Further evidence that quality improvement was important came from those groups that withheld financial rewards to underspending practices unless quality criteria were also achieved. In a national tracker survey of 77 primary care groups a similar spread of prescribing indicators was noted, with an emphasis on quality (the results of financial aspects of the prescribing incentive scheme have not yet been

Categories of prescribing indicators used by primary care groups in two NHS regions in their prescribing incentive schemes

Prescribing indicator	% (95% CI) of primary care groups (n=121)
Quality	
Antibiotics	73 (66 to 82)
Cardiovascular drugs	31 (22 to 39)
Gastrointestinal drugs	23 (15 to 30)
Non-steroidal anti-inflammatories	22 (14 to 29)
Benzodiazepines	17 (10 to 24)
Asthma drugs	16 (9 to 22)
Antidepressants	3 (0.1 to 7)
Diabetes drugs	3 (0.1 to 7)
Osteoporosis prophylaxis	3 (0.1 to 7)
Cost	
Generic prescribing	88 (82 to 94)
Gastrointestinal drugs	59 (50 to 68)
Non-steroidal anti-inflammatories	24 (17 to 32)
Modified release preparations	18 (11 to 25)
Drugs of limited clinical effectiveness	13 (7 to 20)
Antibiotics	12 (6 to 18)
Combination products	7 (2 to 11)
Emollients	5 (1 to 9)
Cardiovascular drugs	3 (0 to 5)
Antidepressants	2 (0 to 4)
Antipsychotic drugs	1 (0 to 2)

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published).[4] Research evidence offers little information about the size of financial inducements needed to influence prescribing or whether this method is appropriate for changing prescribing.[5]

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Commentary: Prescribing incentive schemes—more evidence is needed of how they work

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"Show me the money" sounds like a mercenary way of changing professional behaviour, but it has been a technique favoured by some policymakers in the United Kingdom since fundholders showed their ability to control prescribing costs in general practice.[1] Ashworth et al present survey data to describe the approaches used in 145 primary care groups to allocate payments under the prescribing incentive scheme and associations between payments and some of the indicators.

Members of the public, and some readers of the *BMJ*, are likely to be baffled by several aspects of this well conducted study, if it is reported in the mass media. Why were the indicators and allocations so random in different primary care groups? Why are well paid professionals being provided with more resources to prescribe cheaper drugs? What could practices spend payments of up to £45 000 on?

Ashworth et al are unable to describe the basis for decisions on quality or cost in the space available. They cite some happy coincidences where reduced prescribing of antibiotics was considered a method of reducing costs and improving quality but other instances where improved quality—for example, for statins in patients with established coronary heart disease—meant higher cost. The variation in quality measures used by primary care groups may reflect the critical appraisal skills in contemporary primary care. The fact that some gave rewards to every practice irrespective of performance suggests that the scheme lacked clarity of purpose.

Although in theory incentives should help change routine behaviour, the evidence is scant beyond the fundholding experience that manipulating payments affects prescribing costs.[2] This is partly because studies such as this one tend to be based on "natural experiments" rather than planned investigations. The evidence from opportunistic research is often mixed with some positive and negative effects.[3] The current orthodox view is that more than one technique is needed to change clinicians' behaviour.[4] Prescribers in the London and South East regions are likely to have had multiple factors influencing their prescribing behaviour—for example, pharmacists attached to the practice—which this research was unable to capture.[5]

Ashworth et al do not say what general practices bought with the money, but it is unlikely to have been a jacuzzi for the senior partner. The regulations state that payments must be spent on services to patients. Even this arrangement is paradoxical. If the practice population needs a service, why do existing funding arrangements not already make this service available? If the service is a luxury, why should the patients who happen to be in a "rewarded" practice benefit from funding that might be spent more effectively elsewhere in the NHS? Practitioners in other parts of the United Kingdom will read about the sums involved and feel that they have been dealt with unfairly. Ashworth et al in their cross sectional study describe what was happening with prescribing incentive schemes in London and the South East during 2000. The study cannot answer the larger questions of equity in the NHS. Firing silver bullets at prescribers may alter their behaviour, but a richer evidence base is needed to help primary care groups aim more effectively.

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