The development of prescribing incentive schemes in primary care: a longitudinal survey

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SUMMARY

Primary Care Groups and Trusts in England (Primary Care Organisations, or PCOs) are required to operate a prescribing incentive scheme. Little is known about their development since their inception in 1999. We surveyed incentive schemes in London and the South-East NHS Regions in the two consecutive years since 1999. Most of the changes to the incentives and prescribing indicators favoured improvements in prescribing quality, rather than cost control. Quality improvements may be hampered in those PCOs offering financial rewards to underspent general practices that fail to achieve any prescribing quality targets.

Keywords: *prescribing indicators; prescribing change; primary care organisations.*

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Introduction

GENERAL practitioners' (GPs') prescribing costs accounted for just over 13% of National Health Service expenditure in 2000/2001 and about 18% of the budget of Primary Care Organisations (PCOs).[1,2] Although relative costs have risen over the past decade,[3] recent policy emphasis has shifted from cost containment to quality improvement. Each PCO is required to run a prescribing incentive scheme; however, PCOs are free to determine which aspects of prescribing to reward. We aimed to determine the changes to these schemes one year after their inception and whether the changes were aimed at prescribing quality improvement or cost containment.

Method

Prescribing advisors in each PCO in the London (n = 51) and South East (n = 62) NHS Regions were contacted in autumn 2001, to collect information on prescribing incentive schemes in use in the preceding financial year, 2000/2001. Questionnaires were sent by e-mail; three further e-mails and a telephone reminder were sent to non-responders. A longitudinal dataset was constructed by linking responses to those of a previous survey.[4]

Results

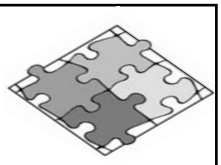
Prescribing indicators

One hundred and three out of 113 (91%) PCOs responded to the 2000/2001 survey; in the previous year, the response rate had been 129 out of 145 (89%). The changes in prescribing indicators are summarised in Table 1. Of indicators relating to drug categories, those describing statin prescribing showed the greatest increase, their use in PCOs rising from 17% to 55%. Non-PACT (Prescribing Analysis and CosT) data were required in 49 of the 57 PCOs using a statin indicator, to determine if the statin prescribing target had been achieved. The majority of these 49 PCOs required practice-based data collection using disease registers, to quantify the proportion of eligible patients that were receiving statins. Most schemes linked payment of rewards to higher prescribing, but four used non-PACT data to reward lower statin prescribing in patients assessed as having a low risk of cardiovascular disease.

Financial incentives and overspends

In their first year, 88% (91/103) of PCOs had overspent their budget but by the second year, only 38% (38/100) did so. PCOs that underspent in the second year were more likely to have selected a gastrointestinal indicator (Table 2) but no

HOW THIS FITS IN



What do we know?

Primary Care Organisations (PCOs) use a wide variety of prescribing indicators, and rewards based on these indicatiors, to influence GP prescribing. But is this influence mainly used to restrain prescribing costs or to promote prescribing quality?

What does this paper add?

Almost all PCOs had adopted quality prescribing indicators by the second year of the study. Further boosts to prescribing quality may be hindered by rewarding underspent practices regardless of quality and by witholding rewards to high-quality prescribers who overspent their budget.

other indicator was associated with budgetary outcome.

In 14% of PCOs, a practice overspending its prescribing budget would not have been eligible for any reward under the incentive scheme, regardless of the quality of its prescribing. In contrast, 52% of PCOs rewarded underspent practices, even if quality targets had not been achieved.

There was no relationship between budget balance in the first year and the type of incentive scheme in the second year. Similarly, there were no significant differences between the schemes of PCOs that had successfully regained control of their budget in the second year, compared with those that remained overspent.

Attitudes of prescribing advisers

Cost containment was important to most prescribing advisers — 84% reported that their choice of indicators was influenced by the need to contain prescribing costs. However, given the choice between avoiding an overspend or improving prescribing quality, only 7% of advisers opted for the financial goal.

The most frequently reported changes between the first and second years of the survey were more quality targets (12%), more audits (11%), more National Service Framework-based indicators (7%), and the addition of statin indicators (6%). Only three out 95 advisers reported a greater emphasis on cost savings. Seven per cent reported no change in their schemes over the two years.

Discussion

Prescribing advisers continue to emphasise the importance of cost control, as shown by the high proportion of schemes still using indicators designed primarily to restrain prescribing costs (such as generic prescribing and gastrointestinal medication). However, changes to the selection of prescribing indicators since the formation of PCOs in 1999 favour quality improvement over cost control. Virtually every PCO was using non-PACT indicators by the second year and these indicators are more geared to improving quality.[5] The threefold increase in the use of statin indicators is likely to increase costs by seeking to reward increased prescribing, although a few PCOs used this indicator to restrain prescribing.

Prescribing incentive schemes are not the only influence on prescribing. The National Tracker Survey of PCOs found

Table 1. Prescribing indicators used by Primary Care Organisations (PCOs) in their prescribing incentive scheme over a two-year period.

Category of prescribing indicator	Percentage using prescribing indicator in 1999/2000 (95% CI)	Percentage using prescribing indicator in 2000/2001 (95% CI)
Generic prescribing	88 (82–94)	75 (66–84)
Antibiotics	77 (70–85)	76 (67–85)
Gastrointestinal medication	68 (59–76)	77 (69–85)
Non-steroidal anti-inflammatory drugs (NSAIDs)	38 (29–46)	51 (41–61)
Cardiovascular medication	32 (24–41)	61 (51–71)
Statins	17 (10–24)	55 (45–65)
Repeat prescribing reviews	26 (18–34)	64 (54–73)
Non-PACT-based indicators (excluding repeat prescribing reviews)	38 (29–46)	86 (79–93)
Non-PACT based indicators (including repeat prescribing reviews)	63 (55–72)	96 (92–100)
PACT-based indicators	97 (93–100)	96 (92–100)

Table 2. Comparison between PCOs that had overspent with those that had underspent their second-year prescribing budget.

Second-year value	PCOs that overspent their prescribing budget (n = 38/100)[a]	PCOs that underspent their prescribing budget (n = 62/100)[a]	Significance of difference between underspent and overspent PCOs
Prescribing budget uplift between year 1 and year 2 of PCO	10.4%	8.2%	P = 0.35
Median number of PACT-based indicators in the incentive scheme	3.0	4.0	P = 0.10
Median number of non-PACT-based indicators in the incentive scheme	2.0	3.5	P = 0.13
Proportion of PCOs using a generic prescribing indicator	78%	73%	P = 0.64
Proportion of PCOs using a statin indicator	46%	61%	P = 0.15
Proportion of PCOs using a gastrointestinal prescribing indicator	62%	84%	P = 0.03[b]
Proportion of PCOs using an NSAID indicator.	51%	50%	P = 1.00

[a]Data only available for 100 out of the sample of 113 PCOs. [b]Statistically significant difference, $P<0.05$.

that 22% of prescribing targets were not linked with incentive schemes, particularly those targets linked with the public health role of PCOs.[6] Our survey is therefore likely to have under-reported the use of quality indicators.

We found no evidence that PCOs that were overspent in their first year responded by abandoning statin indicators or concentrating on indicators used for cost control. In the second year, underspent PCOs were somewhat more likely to have used a gastrointestinal indicator, implying that the choice of this indicator may have contributed to the overall budgetary underspend.

Many of the schemes could have been better designed to reinforce the national policy emphasis on quality improvement. By withholding rewards on practices overspending their prescribing budget or continuing to offer rewards to underspent practices, regardless of the achievement of any quality indicators, PCOs may hamper efforts to improve the quality of prescribing when this entails greater costs.

References

1. Department of Health (including personal social services). *Spending review 2000*. Chapter 8. URL: http://www.hm-treasury.gov.uk/Spending_Review/Spending_Review_2000/Spending_Review_Report/spend_sr00_repchap08.cfm (accessed 15 October 2002).
2. National Statistics. *Annual Abstract of Statistics. United Kingdom, No. 138.* London: The Stationery Office, 2002. URL: http://www.statistics.gov.uk/downloads/theme_compendia/Aa2002/AA2002.pdf (accessed 9 October 2002).
3. Department of Health. *Prescriptions dispensed in the community. Statistics for 1991 to 2001: England. 2002*. URL: www.doh.gov.uk/pdfs/sb0214.pdf (accessed 15/10/02).
4. Ashworth M, Golding S, Shephard L, Majeed A. A survey of prescribing incentive schemes in two Regions. *BMJ* 2002; **324:** 1187-1188.
5. Majeed A, Evans N, Head P. What can PACT tell us about prescribing in general practice? *BMJ* 1997; **315:** 1515-1519.
6. Wilkin D, Gillam S, Leese B (eds). *National Tracker Survey of Primary Care Groups and Trusts 2000/2001. Chapter 9, Prescribing*. Manchester: University of Manchester, 2002. URL: www.npcrdc.man.ac.uk/Pages/Publications/PDF/part2.pdf (accessed 09/10/02).

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