

Containing medicines costs in the private sector — the example of a medical benefit scheme

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Summary

Despite a pre-existing cost-containment programme, expenditure on medicines was identified as a source of further cost savings in a medical benefit scheme faced with increasing divergence between income and benefit expenditure. Analysis of medicines utilisation trends showed that a relatively small number of pharmaceutical products accounted for a high percentage of total medicines expenditure, and that a small number of pharmacies were dispensing a very high proportion of prescriptions.

On the basis of these findings, a revised cost-containment programme for medicines was implemented. It consisted of a recommended medicines list, designed to rationalise selection and utilisation of medicines, and a 'preferred provider pharmacy' network that allowed further savings to be achieved.

In its first 12 months, the programme allowed for savings of R305 000, or 37% of anticipated expenditure on medicines for that year. This represents a decrease over 1988 expenditure notwithstanding an increase in membership and medicine prices over the same period. There are therefore significant savings to be obtained by medical schemes through implementation of cost-containment programmes for medicines.

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The Medical Benefit Society for the Clothing Industry (Transvaal) (referred to hereafter as 'the scheme') is a medical benefit scheme that offers services to approximately 14 000 members through a closed panel of approximately 38 general practitioners, as well as dentists and specialists. The scheme has always been characterised by low contribution income. Contributions in 1986 were R1,50 per member per week (divided equally between members and employers). This low level (the average for all medical schemes in 1986 was R6,70 per beneficiary¹) is in line with the very low average incomes in the industry served by the scheme (the minimum wage in 1986 was R90 per week).

During the early 1980s the scheme experienced an increasing divergence between low and static contribution income and rising expenditure on health services. By 1986 the scheme was no longer able to meet expenditures out of income, and was forced to begin utilising reserves. Since the potential for increasing contribution income was limited, the introduction of strenuous cost-containment measures had become an urgent necessity.

In 1986 the average prescription costs in this scheme were very low compared with the average for all schemes combined (R17,83 v. R47,12). Despite this, expenditure on medicines

accounted for approximately 60% of total benefit expenditure in the scheme at this stage. Medicines expenditure had also shown particularly rapid increases in the years immediately prior to 1986. For these reasons, medicines were identified as a source of potential cost saving. To this end, an in-depth study of trends in medicines utilisation and expenditure was undertaken and, on the basis of this, additional measures were designed to reduce medicine expenditure further. This paper reports the findings of the initial analysis and describes the measures that were implemented and their results.

Review of medicines utilisation and expenditure

At the time the review was undertaken, approximately 50% of general practitioners dispensed medicines themselves, while the remainder were 'prescribing doctors' who wrote prescriptions that were dispensed by retail pharmacies. At this stage, a limited cost-containment programme for medicines was in operation. All doctors in the scheme were dispensing or prescribing according to a limited medicines schedule, which was largely, although not entirely, based upon generic prescribing.² Doctors were able to prescribe outside this schedule if they believed that the clinical needs of their patients required this. Medicines usage by doctors was actively monitored by peer review.

A 3-month retrospective analysis of the utilisation patterns of prescribing doctors was undertaken to ascertain the nature and quantities of the medicines prescribed, the cost implications of these patterns, and the extent of the utilisation of individual retail pharmacies by members.

The analysis elicited two important findings. The first was that a relatively small number of pharmaceutical products accounted for a high percentage of total medicines expenditure. As shown in Table I, the top 100 products by volume accounted for 69,7% of total expenditure on medicines. The second important finding was that a small number of pharmacies were dispensing a very high proportion of prescriptions

TABLE I. UTILISATION STATISTICS FOR MEDICINES USED BY PRESCRIBING DOCTORS, SHOWING THE CUMULATIVE PERCENTAGE EXPENDITURE ACCOUNTED FOR BY A CUMULATIVE NUMBER OF PRODUCTS

Cumulative number of pharmaceutical products	Cumulative percentage expenditure
10	27,1
20	37,8
30	45,6
40	51,2
50	55,4
60	59,0
70	62,2
80	65,1
90	67,4
100	69,7

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for members of the scheme. Fig. 1 shows that 6 pharmacies were responsible for dispensing 76,1% of prescriptions, which accounted for 70,7% of medicines expenditure in the scheme as a whole. The remaining 23,9% of prescriptions were distributed among a further 84 pharmacies. These latter prescriptions represented 29,3% of total medicines expenditure.

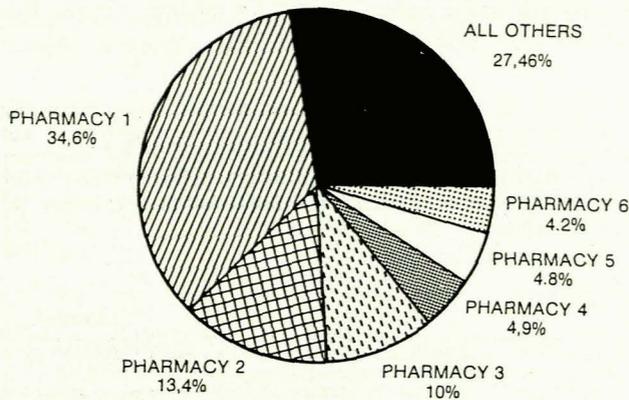


Fig. 1. Concentration of pharmacy utilisation by members.

A cost-containment programme for medicine

These observations led to the formulation of a revised cost-containment programme consisting of two major elements. The first involved a further rationalisation of the selection and utilisation of medicines, through the development of a new recommended medicines list ('the list'). The list was designed to promote the use of a limited range of medicines that would cost-effectively treat the majority of clinical conditions likely to be encountered by the scheme's general practitioners and specialists. It was compiled taking into account the existing prescribing habits of panel doctors, and the contents of other formularies, for example the World Health Organisation's list of essential drugs.³ In addition the opinions of the panel doctors and pharmacists were elicited and taken into account in the development of the list.

Once the list was implemented, all doctors were requested to prescribe only from it; however, they retained the freedom to prescribe outside it if they considered this to be in the best interests of their patients.

All prescriptions were reviewed, and follow-up action with practitioners was undertaken where necessary. In addition, updating of and changes to the list were made regularly in consultation with the panel doctors and pharmacists. Extensive use was made of a computerised information system in the development and implementation of the list. Statistics derived from this system were regularly made available to doctors, so as to increase awareness of their prescribing patterns and of the cost implications of those practices to the scheme.

The second element of the programme was the development of a system of 'preferred provider pharmacies'. This was designed to capitalise on the concentration of pharmacy utilisation noted in the initial analysis. Since the majority of prescriptions were being filled by six retail pharmacies, these were invited to become preferred provider pharmacies.

The system operated as follows: members were encouraged to use the preferred provider pharmacies through a 50% reduction in the levy of R1 per prescription payable at all other pharmacies. In return for the guaranteed flow of customers, and for the ability to optimise inventories on the basis of the list, the preferred provider pharmacies were required to

ensure that only medicines from the list were dispensed to members of the scheme unless doctors had specified otherwise. They were also required to purchase sufficient stock for a 4-8-week period, and to take advantage of bulk packs and quantity discounts and to pass some of these benefits onto the scheme.

Any pharmacy could apply to become a 'preferred provider pharmacy'. The decision to do so, however, was likely to be based on receiving a sufficient volume of prescriptions from the society's members to justify the additional investment in inventory that would be required.

Ongoing discussions as to the nature and progress of the system were held between member representatives, the scheme administrators, doctors and pharmacists before implementation and thereafter.

Results

The revised cost-containment programme for medicines was introduced in January 1989, and was reviewed 12 months after implementation. The programme was shown to have achieved substantial cost savings over the period under review. Fig. 2 shows the trend in average prescription costs in the scheme as a whole from 1983 to 1989. During the first 12 months of operation of the programme, estimated savings of R305 000, or 37% of anticipated expenditure on medicines for that year, were achieved. This represents a decrease of 4% over 1988 expenditure on medicines, notwithstanding an increase of 13% in membership, and of 16,5% in medicine prices over the same period.

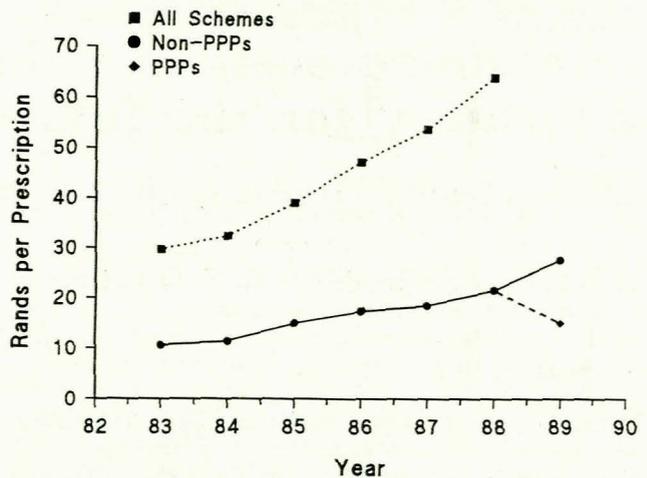


Fig. 2. Average prescription price.

The implementation of the preferred provider pharmacy system allowed for significant additional reductions in average prescription costs. Fig. 2 shows that by the end of 1989 the average cost of a prescription from a preferred provider pharmacy was 20,8% of the average for other schemes. While, for all other schemes, the average cost per prescription increased substantially during the 5 years before 1989, the average cost of a prescription from a preferred provider pharmacy in this scheme was below the scheme average for 1985.

It is also noteworthy that member support for the preferred provider pharmacies grew significantly over the 12-month period under review. Whereas these pharmacies had initially accounted for 63% of all prescriptions dispensed by pharmacies, by year-end this figure had grown to 83%.

Discussion

Despite the pre-existence of a medicines schedule, medicines expenditure accounted for a disproportionately large element of total benefit expenditure in the scheme described here. Although this is in part a result of the relatively low expenditures on other benefits, the possibility of further savings in the category of medicines was correctly identified and exploited.

Several important issues should be highlighted. Firstly, the development of a medicines list rationalised the selection and utilisation of medicines within the scheme. The success of this undertaking in turn depended on open, frank and effective communication between all participants. This included the use of a sophisticated management information system that facilitated communication between doctors, pharmacists and the scheme. It also included an ongoing review of the operation of the programme, and the introduction of modifications where required.

The savings were greatly enhanced by the implementation of a preferred provider pharmacy network. The list and the preferred provider pharmacy network should therefore be seen as mutually supportive aspects of the total programme.

An important policy throughout was to allow doctors and pharmacists maximum professional discretion within the unavoidable constraints of the cost-containment programme.

Similarly, the rights of individual members to choose a pharmacy and a brand of medicine were retained, despite the fact that some of these choices may have been constrained by additional cost implications to individuals exercising these rights.

This programme has shown that substantial savings on medicines expenditure are possible. Significant opportunities for savings would appear to exist for medical schemes that have not implemented such programmes.

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REFERENCES

1. Registrar of Medical Schemes. *Report of the Registrar of Medical Schemes to the Central Council for Medical Schemes for the Year Ended 31 December 1987*. Pretoria: Central Council for Medical Schemes, 1988.
2. Medlist Publications. *Medlist Medicine Schedule, Incorporating the List of Medicines for Medical Benefit and Medical Societies*. Johannesburg: Medlist Publications, 1968.
3. World Health Organisation. *Essential drugs*. 5th revision. *WHO Drug Info* 1988; 2(1): 31-41.