Relationship between increasing prescription charges and consumption in groups not exempt from charges

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SUMMARY. The further increases in National Health Service (NHS) patient charges introduced on 1 April 1985 represent a continuation of the Government's policy of requiring all except priority groups to pay an increasing proportion of the cost of their own treatment. Reductions in the use of the services on which charges are imposed would be incompatible with the stated objectives of the NHS. An analysis of the published data on NHS prescription dispensation shows that this policy has been associated with a considerable reduction in the per capita consumption of prescribed drugs in non-priority groups.

Introduction

CONSIDERABLE increases have been made to the real value of National Health Service (NHS) prescription charges since 1979 (Table 1). After allowing for inflation the charge has increased by 590% over the period 1979–85. Other NHS patient charges have been increased by similar proportions. One consequence of this policy is that the proportion of the total cost of the services met by patient charges has increased (Table 2). However, since a large proportion of these services are provided to priority groups who are exempt from paying charges (almost 75% of prescriptions are exempted[2]) those patients who are subject to charges, along with those who fail to claim exemption, contribute a much greater proportion of the cost of their own treatment than indicated by the data in Table 2. As an indicator of this Table 3 shows the prescription charge as a proportion of the average gross cost per prescription item. These data show how the level of subsidization of the cost of prescribed drugs for patients paying for prescriptions has been reduced since 1979.

Table 1. NHS prescription charges over the period 1979–85.[a]

Date	Nominal charge (£)	Real charge[b] (£)
May 1979	0.20	0.20
July 1979	0.45	0.42
April 1980	0.70	0.58
April 1981	1.00	0.74
April 1982	1.30	0.88
April 1983	1.40	0.91
April 1984	1.60	0.99
April 1985	2.00	1.18

[a]Sources: York Family Practitioner Committee, personal communication and ref. 1. [b]Calculated by deflating the nominal charge by the monthly retail price index.

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Table 2. Total Government expenditure and proportion of expenditure financed by patient charges for NHS pharmaceutical services over the period 1978/9–1983/4.[a]

Year	Total Government expenditure (£000 000s)	Percentage of expenditure financed by charges
1978/9	880	*3.2*
1979/80	986	*5.0*
1980/1	1213	*7.3*
1981/2	1394	*7.7*
1982/3	1599	*7.8*
1983/4	1769	*7.7*

[a]Source: ref. 1.

Table 3. Mean gross cost per item for prescribed drugs and percentage of cost met by prescription charges over the period 1978–83 in England and Wales.[a]

Year	Mean gross cost per item (£)	Percentage of cost met by charges
1978	2.1	*9.5*
1979	2.4	*18.7*
1980	3.0	*33.0*
1981	3.4	*35.3*
1982	3.8	*34.2*
1983[b]	4.1	*34.1*

[a]Source: ref. 1. [b]1983 data refer to England only.

Standard economic theory predicts that as the price of a commodity rises the demand for that commodity falls *ceteris paribus*. In general, the published empirical evidence on use of the health service supports this theory. Both Lavers[3] (paper presented to the international conference on health economics, Lille, 14–16 September 1983) and O'Brien (MSc dissertion, University of York, 1981) found elasticities of demand for NHS prescriptions of between −0.1 and −0.2, that is a 10% increase in the prescription charge would give rise to a reduction in the dispensation of NHS drugs for non-exempt groups of 1–2%. Begg[4] found that the proportion of prescriptions not cashed was significantly greater for non-exempt groups than for those exempt from charges which suggests that the charge does have an effect on prescription consumption. There is considerable empirical evidence of similar responses to the imposition of other charges, for example consultation fees.[5,6]

The purposes of this study were: to consider whether the charges policy of the Government has been associated with a reduction in the use of primary care; and to consider the implications of the policy for the performance of the NHS with respect to its objectives.

Method

The NHS prescription charge and the consumption of NHS prescribed drugs as measured by the number of items dispensed were examined. The trend in the consumption of NHS prescribed drugs by non-exempt groups was investigated over the period 1979–83. Changes in consumption cannot be solely attributed to the Government's charges policy since other factors may also have changed over the period studied, for example income levels and health status. However, some idea of the importance of charges can be obtained by comparing the consumption in non-exempt groups with that in exempt groups who are likely to have been subject to at least some of the other factors but not to the changes in the prescription charge.

The published data used here concern the number of prescription items dispensed by charge status.[1] These data are subject to two major limitations. The first is that prescriptions dispensed against prepayment certificates are recorded under the no charge category even though the prepayment certificate is a form of charge. Any increase in the number of prescriptions dispensed under these arrangements that occurred over the period 1979–83 would therefore overestimate the reduction in charged prescriptions dispensed. Although data on prepayment dispensing were not available for the whole period, just under 6% of all prescriptions dispensed in 1983 were paid for by this method.[7] If it is assumed that no prepayment dispensing occurred in 1979 then reallocating prepayment prescriptions for 1983 from the exempt category to the charged category overcorrects these data and hence underestimates the reduction in charged prescriptions dispensed by the amount of prepayment dispensation that occurred in 1979.

The second limitation of the data is that the numbers of individuals qualifying for exemption from payment of prescription charges may have changed over the period 1979–83. While data are not generally available on exempt (and hence non-exempt) populations these can be estimated by summing data on:
— the population over normal retirement age (65 years for men and 60 years for women);
— children aged under 16 years;
— those in receipt of supplementary benefit who are under retirement age;
— those in receipt of family income supplement.
Although take-up rates of benefits and exemption may differ these data should indicate broad changes in exempt populations.

The change in consumption of prescribed drugs between exempt and non-exempt groups was compared in terms of prescriptions dispensed per capita.

Results

The numbers of prescription items dispensed per annum over the period 1979–83 are shown in Table 4. The consumption of charged prescriptions fell by 35% over the period compared with a 23% increase in the consumption of prescriptions by those who were exempt from payment. After correcting the 1983 data for the prescriptions charged by prepayment certificates the changes in consumption were an 18% decrease and a 12% increase respectively.

The changes in the estimated populations over the period 1979–82 are given in Table 5. A 7.5% reduction in the per capita consumption of prescriptions by the non-exempt group over the period was recorded compared with a 1.0% increase for the exempt group after correcting for prepayment certificate dispensing — this is an overcorrection and hence the difference in the rates of change of consumption is a conservative estimate.

Table 4. The number of prescriptions dispensed by the exemption status of patients over the period 1979–83 in the UK.[a]

Year	Number of prescriptions dispensed to patients exempt from charges[b] (000 000s)	Number of prescriptions dispensed to patients paying charges (000 000s)	Total number of prescriptions dispensed (000 000s)
1979	243.8	131.3	375.1
1980	261.8	112.2	374.0
1981	273.7	96.2	369.9
1982	291.3	92.0	383.3
1983	301.3	85.0	386.3
Percentage change 1979–83	*23.6*	*-35.3*	*3.0*

[a]Source: ref. 7. [b]Including prescriptions dispensed against prepayment certificates.

Table 5. Estimated populations and prescription consumption per capita for exempt and non-exempt groups over the period 1979–82 in the UK.[a]

	Population estimates (000s)		Per capita consumption	
	Exempt patients	Non-exempt patients	Exempt patients	Non-exempt patients
1979	23 767	32 451	10.3	4.0
1980	24 686	31 618	10.6	3.6
1981	25 309	31 604	11.0	3.0
1982[b]	25 934	31 026	10.4	3.7
Percentage change 1979–82	*6.5*	*-4.4*	*1.0*	*-7.5*

[a]Sources: refs. 1,7. [b]Adjustment for prepayment certificate holders (reallocation from exempt to non-exempt patients) made to 1982 figures according to 1983 data since some population figures were not available for 1983.

Discussion

The analysis described here shows that the charging policy of the Government has been associated with a considerable reduction in the consumption of NHS prescribed drugs. One argument often made in support of charges is that their effect is to 'deter unnecessary or marginal utilization'.[8] Some support for this has been provided in the Rand Insurance experiment.[9–11] Although rates of use of ambulatory health care and hospital admissions were significantly lower among patients required to pay part of medical bills compared with patients provided with services free at the point of delivery there was little evidence of significant differences in the health status of the two groups. However, the design of the experiment was subject to a number of limitations which may have prevented the observation of differences in health status.[12,13] A Canadian study found that patient consultation rates were almost entirely explained by the health status of the patients (Wolfson AD, Solari AJ. Research report on the results of the patient utilisation study. Unpublished report for the Ontario Ministry of Health, 1976). Where there was any unnecessary use it appeared to be generated by the fee-for-service system of remuneration of the doctors. In the UK a significantly lower proportion of prescriptions for psychotropic drugs and antibiotics were dispensed than for placebo-type drugs.[14] Yet it is the prescription of placebo-type drugs that those concerned about unnecessary prescriptions are presumably

trying to deter. The difference in the rates of dispensing could be explained by other factors such as the exemption status of the patients for whom the drugs were prescribed which was not controlled for in the study.[14] Nevertheless any decrease in the use of services caused by an increase in charges will not necessarily be a reduction in unnecessary usage. Furthermore, it does not appear that the reduction in the consumption of prescription items has been compensated for by increases in the quantities of any one item per prescription.

The Government defends its policy on NHS charges on the grounds that those who can afford to pay should contribute to the cost of the service. However, the important point is not that individuals paying charges are prevented from using the service but that the charges deter them from using the service as much, as often, or as soon as they might. Furthermore, the exemption of priority groups from charges cannot be substantiated by the Government's argument — children, expectant mothers and the elderly are exempt from charges irrespective of their means.

While ability to pay is used as the criterion for both the distribution and financing of parts of the NHS then the objective of maximizing health status improvements will be compromised. If this objective is to be pursued then the distribution of health care must be based on the ability to benefit from health care. This need not be inconsistent with an ability-to-pay system provided that the charge is not imposed at the point of delivery of health care but elsewhere in the system, for example via the tax system.

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