

# PROJECT PAPER

Number RC7

July 1980

# Deputising Services, Prescribing in General Practice and Dispensing in the Community

HSE Gravelle

HMP (Gra)

Based on working papers of the Royal Commission on the NHS



54001000404726

King Edward's Hospital Fund for London is an independent charity founded in 1897 and incorporated by Act of Parliament. It seeks to encourage good practice and innovation in health care through research, experiment, education and direct grants.

The King's Fund Centre was established in 1963 to provide an information service and a forum for discussion of hospital problems and for the advancement of inquiry, experiment and the formation of new ideas. The Centre now has a broader interest in problems of health and related social care and its permanent accommodation in Camden Town has excellent facilities for conferences and meetings. Allied to the Centre's work is the Fund's Project Committee which sponsors work of an experimental nature.

KING'S FUND COLLEGE LIBRARY

CLASS NO: 23/71 MMP

DATE OF RECEIPT: PRICE:

Published by the King's Fund Centre, 126 Albert Street, London NW1 7NF. Printed in England by Trident Services, London SE1.



LIBRAR by HSE Gravelle KINGS FUND COLLEGE DATE RECEIVED AN 8177

July 1980 Price £1.00 King's Fund Centre 126 Albert Street London NW1 7NF



# **CONTENTS**

EDITORS' INTRODUCTION	5
DEPUTISING SERVICES	7
DEVELOPMENT OF DEPUTISING SERVICES	7
THE SERVICE PROVIDED	8
THE SUPPLY OF DEPUTISING SERVICES	. 8
COSTS AND CHARGES	9
CONTROL	10
COMPLAINTS	11
ADVANTAGES	15
THE ALTERNATIVES COMPARED	16
ISSUES	16
APPENDIX	19
SELECT BIBLIOGRAPHY	21
PRESCRIBING IN GENERAL PRACTICE	23
ORGANISATION OF PHARMACEUTICAL SERVICES	24
CRITICISMS OF PRESCRIBING IN GENERAL PRACTICE	27
SUGGESTIONS FOR IMPROVEMENT	28
DIRECT CONTROLS	33
IMPROVED INFORMATION	34
THE WIDER IMPLICATIONS OF THE SUGGESTIONS	36
ISSUES	37
APPENDIX	39
REGULATION OF PHARMACEUTICAL PRICES	39
SELECT BIBLIOGRAPHY	43
DISPENSING IN THE COMMUNITY	45
OUTLINE OF THE SYSTEM	45

DECLINING ACCESS TO CHEMISTS	48
RESTRICTED ROLE OF CHEMISTS	51
POSSIBLE REMEDIES	51
DISCUSSION	52
SELECT BIBLIOGRAPHY	57

This is the seventh in a series of project papers based on the working papers of the Royal Commission on the NHS. The papers reproduced here, written by the economic adviser to the Royal Commission, describe three aspects of primary health care which were commonly referred to in the evidence to the Royal Commission: deputising services, prescribing and dispensing in the community. The papers, which have been updated since the publication of the Royal Commission's Report\*, describe the present services in these three areas, and explore the criticisms and suggested resolutions made in the evidence to the Commission. They should be seen in the context of a wide variety of material made available to the Royal Commission through evidence submissions, discussions with experts and papers prepared by members and secretariat of the Commission. The views expressed in the papers do not necessarily reflect the views either of the King's Fund or the Royal Commission.

We are grateful to King Edward's Hospital London Fund for giving us a grant to enable this series to be produced and to the Polytechnic of North London where this project has been based.

Christine Farrell Rosemary Davies

<sup>\*</sup> GREAT BRITAIN, PARLIAMENT, Report of the Royal Commission on the NHS (Chairman: Sir Alec Merrison) London HMSO 1979 Cmnd 7615.



This paper gives an outline of the current position of deputising services and examines the issues raised in evidence to the Royal Commission on the National Health Service. The appendix gives details of the location and ownership of deputising services.

#### DEVELOPMENT OF DEPUTISING SERVICES

The use of deputising services has grown rapidly since the first service was established in London in the mid 1950s. They now operate in most major cities, though not in the less densely populated rural or semi-rural areas. The number of general practitioners using the services increased from 4000 in 1971, to 6000 at the end of 1972 and to 8000 (nearly a third of GPs) in 1976. The average increase in patient contacts, for 14 services for which figures are available, from 1971 to 1974-5 was 47.3 per cent. In 1974-5 there were nearly half a million patient contacts with deputising services in Great Britain. Those in England and Wales represented about 0.3 percent of all GP consultations and two percent of home visits. These figures are averages and tend to understate the local significance of the services since they are concentrated in urban areas and not all urban GPs use them. In Sheffield in 1970 for example, the deputising service covered threequarters of the city's GPs, handled one per cent of subscribers' consultations, five per cent of their home visits and half of their calls between midnight and 7 am. The more partners in a practice the less likely they are to use a deputising service, but a third of doctors receiving group-practice allowances subscribe to a service where one is available. Elderly GPs and those with large lists are more likely to subscribe.

The rise in the number and use of deputising services may stem from a number of factors: firstly, there may have been a greater propensity of patients to call their doctors outside normal hours, possible initiated by the abolition in 1948 of any extra charges to the patient for out of

hours calls; secondly, GPs may have become more reluctant to give up their leisure time and; and thirdly, the introduction in 1967 of, and subsequent increases in, night visit fees reduced the net cost to the GP of having a deputising service answer his night calls.

#### THE SERVICE PROVIDED

On average GPs appear to receive out of hours calls at the rate of one or two per evening between 6 pm and 11 pm, two per month between 11 pm and 7 am, and one or two per day between 7 am and 7 pm at the weekend. A deputising service is one means of easing the load of these calls on GPs. The out of hours calls to a GP from patients are rerouted to the deputising service either by the GP who may decide to deal with some of the calls himself; or by an answering service; or by the operator who intercepts and redirects the call; or by automatic transfer, so that the GPs incoming calls are answered directly by the deputising service. After receipt of a call at the deputising service central control the nearest available deputising doctor is directed to the caller. A deputy works a twelve, eight or four hour shift, is provided with a medical bag, a two-way radio telephone and, usually, a driver-navigator. After the deputy has seen and treated the patient the details of the call are recorded on a triplicate pad. One copy is given to the patient to deliver to his GP and one is posted to the GP by the service. The service usually operates from 7 pm to 7 am every night, during the day on public holidays and weekends and often from 1 pm on at least one weekday. afternoon.

# THE SUPPLY OF DEPUTISING SERVICES

According to a survey in December 1976 deputising services were supplied by three large and a number of smaller firms (see Appendix). The biggest of the three firms, Air Call Ltd (a subsidiary of Phillips) had services in 16 cities. Most of these services were sponsored, but not run, by the BMA, which undertook, in return for three per cent of Air Call's turnover, the ethical and professional supervision of the services through local and national medical advisory committees.

Allied Investments Limited ran services in Birmingham and Liverpool and owned, jointly with Air Call, services in London. The third large group was On Call Ltd which operated in the north west of England, and had recently turned down a merger offer from Allied Investments. The remaining services had a more limited coverage and were usually owned and run by doctors as commercial enterprises. One service (Southern Relief) was partially (49 per cent) owned by its subscribers.

#### **COSTS AND CHARGES**

The costs of a deputising service depend on both the size and the density of the population it covers. Costs per call will tend to decline with the number of calls because the costs of communication (telephone and radio-telephone equipment) will be relatively insensitive to the number of calls. Costs per call will also decline with population density since each deputy will have less far to travel between calls. Services were originally concentrated in the more densely populated urban areas, with populations over 400000 being thought necessary to generate a sufficient number of calls. The required minimum population size is now thought to be about 160000, the decline possibly being accounted for by GPs' greater willingness to use deputising services. The cost (about £15000 in 1977) of establishing a new service does not appear to constitute a barrier to the entry of new services.

About half of deputies' visits are made by deputies who are themselves GPs, a third by hospital doctors and ten per cent by doctors working full time for the service. These averages conceal some wide variations amongst services. Deputies are paid for each shift, with a fee per call, which is higher after midnight.

Most services have a variety of schedules of charges to GPs. The schedules often have a fixed monthly charge with, after a number of

free calls, a fee per call and a surcharge on calls after midnight. A GP who used a deputising service for 200 day calls and 40 calls after midnight per year would probably have paid about £800 in 1977.

Most GPs include out of hours responsibilities in their contracts. In 1979/80 a willingness to work outside the normal hours of 8 am to 7 pm on weekdays and 8 am to 1 pm on Saturdays entitles them to:

- (a) supplementary practice allowance of £700 per annum in respect of the first thousand patients on the GP's list.
- (b) supplementary capitation fee of 64p per annum for every patient in excess of a thousand;
- (c) night visit fees of £6.75 for every visit made by the GP, or on his behalf by a deputising service, from 11 pm to 7 am.

A GP with a list of 2,500 and making 40 night visits a year would therefore have received £1930 for his out-of-hours responsibilities in 1979/80 and this would have covered his payments to a deputising service to relieve him of many of his out of hours calls.

#### CONTROL

In England and Wales the GP is legally responsible under his contract with his family practitioner committee (FPC) for the medical care provided by the deputising service he uses. If the deputy employed by the service is a GP in contract with the local FPC the subscribing GP is, however, relieved of the responsibility. In Scotland the legal liability rests on the deputy irrespective of whether he is a GP or not.

Under the NHS (General and Medical Services) Regulations of 1974 FPCs have the power to withhold permission for deputising services to operate and to lay down conditions governing the use of the services by GPs. The regulations give FPCs a good deal of discretion in the regulation of deputising arrangements. They merely provide that GPs in

receipt of out-of-hours payments should not be allowed to avoid all out-of-hours duties by use of deputising services. There is considerable variation amongst FPCs in the conditions and constraints they impose on the services and GPs' use of them.

Examples of constraints on the use of deputising services imposed by FPCs include: 60 calls per thousand patients per year, 20 calls per doctor per month, one night per month, six to eight times per month. GPs have the right to appeal to the Secretary of State against FPC decisions on deputising services.

A revised code of practice was issued by the DHSS in 1978 to guide FPCs in their regulation of the services but it suggested few major changes to visiting arrangements.

#### **COMPLAINTS**

There is relatively little evidence on patients' attitudes to deputising. Complaints about deputising services form about three per cent of complaints to FPCs. The significance of this figure depends crucially upon:

- (a) whether it is compared with the proportions of consultations, home visits or night visits provided by deputising services;
- (b) whether patients have a higher propensity to complain about out of hours arrangements of all kinds.

## Continuity

The largest group of complaints in the evidence to the Royal Commission centred on the threat posed by deputising services to the continuity of primary care. A deputy has no personal knowledge of the patient's medical or social background and access to his medical records. Against this it has been argued that in the great majority of calls the required treatment is obvious and can be provided by any competent

doctor or that the patient will not be harmed by waiting to see his GP in the morning. To cover the few exceptional cases the deputising services usually insist that the GP give them a phone number where he can be contacted if necessary. The GP is informed of any treatment given to his patients by the deputy either by the patient handing him the details of the call or by the service sending him the details. Most, though not all, services send these details by first class post at the end of the deputy's shift.

# Difficulty in contacting the service

Some patients, especially the elderly, have difficulty in contacting the service. The arrangements for rerouting calls may involve a possibly distraught or infirm caller having to dial a series of different telephone numbers.

#### **Delays**

Services are often alleged to take a long time to respond to calls. Many services give priority to urgent calls. A study in Sheffield in 1970 showed that 72 per cent of all calls were answered within one hour and calls involving such conditions as acute myocardial infarction and asthma rather more quickly than this. The usefulness of the figures is limited because there are no comparable figures on GPs responses to out of hours calls and the less efficient services may be less likely to cooperate with researchers.

# Quality of deputies

The quality of deputies causes concern. There are complaints that:

- (a) poor quality doctors predominate in deputising because this is the only kind of work open to them;
- (b) deputies are inexperienced, especially in general practice work;

(c) deputies are often tired because they may also have a full-time job.

The response of the services to these charges is that they have more applicants than vacancies and so can select deputies carefully, and that they require deputies to get adequate rest between their jobs and their deputising shifts. A service will have a medical director who can check on deputies by examining their call notes. Finally, services usually establish advisory committees of local doctors who help to select deputies.

The 1970 Sheffield study reported that of 20 deputies employed by the BMA sponsored service one was a full time deputy, 13 were in the hospital service and six in general practice. The average time since qualifying was 11.8 years for the GP deputies and 6.5 years for the others. 17 out of the 20 had qualified in UK medical schools, as had a similar proportion of the city's GPs.

# Prescribing and hospital referral

The treatment recommended by deputies has been criticised on the grounds of over-prescription and over-referral to hospital. These problems, it is suggested, arise from the poor quality of deputies, their lack of personal knowledge and access to records and possibly their system of remuneration.

Since deputies receive a fee per call this may encourage them to spend too little time with a patient and to diagnose and treat hastily. There has been a rise in the use of hospital and accident and emergency departments, but this cannot be attributed to the growth of deputising services, since it has occurred both in areas with, and in those without, a deputising service. The length of hospital stay of patients appears to be the same irrespective of whether they were admitted by a deputy or not.

A comparison of the out of hours experience of a Leicestershire group practice<sup>2</sup> which did not use a deputising service with the results of the 1970 Sheffield study indicated that deputies were more likely to refer

patients to hospital, or prescribe drugs and less likely to offer advice only. Such results should be treated cautiously because of other possible differences between the areas being compared. The issue must be regarded as undecided in the absence of any properly standardised comparisons.

#### Over visiting

There are suggestions that GPs' use of deputising services encourages frivolous calls from patients and that, since deputising services send a deputy to the great majority of calls received, this leads to a waste of medical manpower. Dixon and Williams<sup>3</sup> found in their analysis of the calls to 18 services, that the proportion of calls dealt with solely by the telephone operator of the service ranged from three per cent to 19 per cent with an average of nine per cent. This compares with a third of calls which were handled by telphone advice in the Leicestershire practice referred to above. If these figures are taken at their face value the use of deputising services would appear to lead to more out of hours visits by doctors. Since deputising services have no personal knowledge of callers and therefore find it more difficult to identify the less serious cases by telephone, this additional use of medical resources is a necessary part of the costs of providing this form of out of hours cover.

#### Over use by GPs

Concern has been expressed at the over use of deputising services by inner city GPs, especially in the poorer parts of London. GPs in these areas often practice from lock-up premises and live some distance away so that they are inaccessible to patients out of office hours. FPCs attempt to control the use of deputising services by GPs but they do not have the resources to inspect the services' records to check that GPs are not exceeding the FPC limits. It is not clear that the mere exercise of stricter control by FPCs would do very much to improve primary health care in the decaying inner areas. The over use of deputies in these areas may rather be a symptom of the more fundamental malaise

of poor quality GPs operating from inadequate premises.

#### **ADVANTAGES**

#### Economical use of manpower

It is impossible for an individual GP to predict accurately when or how often he will receive out of hours calls on a particular night. A deputising service on the other hand will be taking the calls of a large number of GPs and the random fluctuations in the calls by the patients of the individual GPs using the deputising service will tend to cancel out when taken as a whole. The service can predict the demand for deputies fairly accurately and work with a low margin of spare capacity at any given time. Overall the calls to GPs vary systematically with the time of day, the day in the week and the season. The deputising services can adjust the number of deputies on duty in line with these anticipated variations. The pooling of GPs' calls by the service therefore leads to an economical use of manpower.

#### **Flexibility**

Even with pooling there is still some residual uncertainty in the number of calls and this may be aggravated by epidemics or supply failures (sick deputies for example). Deputising services are flexible to cope with this uncertainty. They have a second line of deputies on call, though not on duty, ready to come in at short notice.

#### Increased supply of GPs

It is argued that out of hours calls place a heavy burden on older and single handed GPs. Hence deputising services increase the supply if GPs by reducing the early retirement rate of older GPs, and encouraging doctors to enter general practice by ensuring them adequate leisure.

#### THE ALTERNATIVES COMPARED

The alternative methods of providing out of hours cover are:

- (a) commercial deputising services;
- (b) NHS run deputising services;
- (c) group practices internal rotas.

All of these methods provided they pool the calls of a reasonable number of GPs, will be able to utilise medical manpower economically. There will always be a conflict between giving GPs time off duty and providing complete continuity of care. None of the alternatives listed above can ensure that patients are always seen by a doctor familiar with their case history. Deputising services run from health centres would however have the advantage of easier access to patient records.

#### **ISSUES**

The evidence to the Royal Commission raised a number of issues:

- (a) 1 What is the best means of providing cover for out of hours calls?
  - 2 Should GPs be encouraged to organise their own cover by rotas or within group practices, or allowed to use deputising services?
  - If group practices are to be expected to provide their own cover should there be an adjustment in the system of remuneration to encourage this?
- (b) If deputising services are to be permitted should they be run by commercial organisations or directly by the NHS?
- (c) How should commercial services be controlled?

- 1 Should there be greater central direction and guidance from the DHSS to FPCs to ensure uniformity of regulation?
- Ought FPCs to monitor more closely the quality of the services and the use made of them by GPs? Should the costs of this additional monitoring be met by the services and the GPs who use them?
- 3 Should the use of the services by GPs also be controlled by changes in the allowances for out of hours duties and the night visit fee?
- 4 Should GPs in England and Wales continue to have legal responsibility for the actions of their deputies?
- If services are to be restricted how can the effect on poorly doctored inner city areas be alleviated?
- (d) Should the development of deputising services in rural areas be encouraged and how might this be done?

19 he sing paying of exercise business.

Complete Projection and Complete Comple

Should the use of the services by contents of the allowances for whith the allowances for with the feat.

A CENTRAL CENTRAL PROPERTY OF THE PROPERTY OF

The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s

TO THE PARTY OF TH

The court court species (in the court court is the court of the court

ty the Aussi

The second secon

# LOCATION AND OWNERSHIP OF DEPUTISING SERVICES (1976)

Ownership	Location	
Air Call (BMA Sponsored)	Portsmouth Southampton Bristol Plymouth Coventry Leicester Blackpool Newcastle-upon-Tyne Sheffield Middlesbrough Glasgow Edinburgh Cardiff Newport Swansea Nottingham	
Air Call (Not BMA Sponsored)	London (GP Relief Services)	
Allied Investments	Birmingham Liverpool	
Central Relief Service	London (NW) Croydon	Jointly owned by Air Call and Allied Investments
Contractors Bureau	Belfast	

Ownership	Location	
Doctors Deputising Service	Southend	
<b>Duty Doctor</b>	Manchester	
Emergency Doctors	Huddersfield Hull Leeds	
Medical Emergency Duty Service	Manchester	
Medical Relief Agency	Stoke-on-Trent	
Medical Relief Service	Grimsby Hull Leeds	
On Call	Wolverhampton Accrington Birkenhead Bolton Preston St Helens Cannock	
South Birmingham Deputising Service	Birmingham	
Southern Relief Service	London	

Source: A guide to deputising services. *General Practitioner* 10 December, 1976 pp 17-28.

- 1 BUXTON, M.J. and others. Variations in GP night visiting rates: medical organisation and consumer demand. *British Medical Journal*. 26 March 1977 pp. 827-830.
- 2 CROW, M.G.F. and others. Out-of-hours calls in a Leicestershire practice. *British Medical Journal*. 26 June 1976 pp. 1582-1584.
- 3 DIXON, R.A. and WILLIAMS, B.T. Twelve months of deputising: 100000 patient contacts with eighteen services. *British Medical Journal*. 26 February 1977 pp. 560-563.
- 4 GREAT BRITAIN. DHSS Report of joint working part on the general medical services. Chairman Sir George Godber. London. H.M. Stationery Office. 1973 pp. VIII 17.
- 5 HALL, D.W. The off-duty arrangements of general practioners in four European countries. *Journal of the Royal College of General Practitioners* 1975. vol 26 pp. 19-34.
- 6 HARDEN, K.A. Deputising service. *Health Bulletin.* vol 31 no. 3 May 1973 pp. 127-129.
- 7 PINSENT, R.J.F.H. Emergency call service. *The Lancet.* September 19 1970 pp. 604-6.
- 8 WILLIAMS, B.T. and others. BMA deputising service in Sheffield 1970. *British Medical Journal*. 10 March 1973 1973 pp. 593-599.
- 9 WILLIAMS, B.T. and KNOWLDEN, J. General practitioner deputising services their spread and control. *British Medical Journal.* 16 February 1974 pp. 9-12.
- 10 A guide to deputising services. *General Practitioner*. 10 December 1976 pp. 17-23.

#### SELECT CHELICORAPHY

BUXTON, M. J. and others, Verster medical organization and consecuacourest. 20 Marco 3377 acc 2270 to

- \* Towns M.O.F. season specific for the property of the control of
- S DAXOM, A Miland William Color Colo
- GREAT BRITARy or an included the control of th
  - - HOLL A REPORT OF THE STREET VANS
      - Decorated ACM LEGISLAND CONTRACTOR

  - 9 MILLIAMS, B.T. ago Colorado de Colorado

10 A goldê tê deplitsin, best ji 1076 pp. 17 23 This paper gives a brief account of the organisation of the supply of pharmaceutical services, considers the criticisms of general practice prescribing and the suggestion for improvement made in the evidence to the Royal Commission on the NHS.

The appendix outlines the Pharmaceutical Price Regulation Scheme (formally Voluntary Price Regulation Scheme).

Prescriptions: Number and cost

TABLE 1 PRESCRIBING STATISTICS, GREAT BRITAIN (1970, 1977)

	Unit	1970	1977	% increase
Number of prescriptions	M	296	351	18.6
Total Cost	£M	201	665	23.09
Net Ingredient cost	£M	148	521	252.3
Average cost per prescription:				
total cost	£	0.680	1.893	178.4
net ingredient cost	£	0.502	1.482	195.2
Retail Price Index		54.2	135.0	149.1
Average per person on list:				
prescriptions	number	5.60	6.54	16.8
total cost	£	3.80	12.38	225.8
Average per GP:				
prescriptions	number	12 080	13 104	8.5
total cost	£	8 213	24 810	202.1

Source: DHSS; Health and Personal Social Service Statistics for

England, 1977, HMSO, London 1979.

Note: The figures relate to prescriptions dispensed by FPC

contractor chemists and appliance suppliers in Great Britain.

Table 1 gives figures on the level and growth of the cost and numbers of prescriptions dispensed by chemists shops and appliance suppliers in contract with family practitioner committees. If the cost of prescriptions dispensed by doctors is included the total cost of FPC pharmaceutical services in 1978/9 was £863m. This is about 11 per cent of total health service expenditure, about four fifths of total NHS expenditure on medicines and compares with expenditure on general medical services of £450m.

# ORGANISATION OF PHARMACEUTICAL SERVICES

Prescribing by general practitioners must be seen in a wider context of the system of supplying pharmaceutical services and products to patients since changes in one part of the system will have repercussions in others. The paragraphs below give a brief description of the salient points of the system and further details are contained in the paper on dispensing.

#### Supply

Doctors providing general medical services can prescribe any drug, medicine or specified appliance which they consider necessary for the treatment of their patient. The drugs are ordered on an official prescription form provided by the GP's Family Practitioner Committee. The patient takes the form to a pharmacist (or appliance supplier) in contract with the FPC to be dispensed, usually from stock. The chemist buys the drugs dispensed from the manufacturers (via wholesalers) under normal commercial terms.

#### **Finance**

Patients pay a charge of 70p per item on their prescription form to the dispensing chemist. Men aged 65 or over, women aged 60 or over, children under the age of 16, people on low incomes and those with accepted war or service disablements do not pay the charge. Three fifths of prescriptions dispensed in England are dispensed without charge to the patient. Charges raised £29m in Great Britain in 1978/9 or 3.4 per cent of FPC pharmaceutical services expenditure.

The chemist obtains reimbursement for his purchase of drugs by sending the prescription forms he has dispensed to the Prescription Pricing Authority (PPA). There the prescription are costed on the basis of price information supplied by the DHSS and the amount due to the chemist is calculated, after including a percentage on-cost to cover overheads, a container allowance and a dispensing fee. The PPA advises the FPC of the amount due to the chemist and the FPC pays him from funds provided by DHSS.

#### **Dispensing doctors**

GPs are permitted to dispense to patients who live a long way from a chemist (over a mile in rural areas) or where there is inadequate communication. The GP is reimbursed for his purchases by the FPC in a way similar to dispensing chemists. In 1977 there were 2626 dispensing doctors in England who dispensed about just over five per cent of all prescriptions.

#### Pharmaceutical prices

The DHSS has no direct control of the drug prices set by the manufacturers but does subject firms to limits on their rate of return on capital. The firms are free to set their prices at any level consistent with the profit constraint. Many of the firms, however, are heavily dependent on the sales of one drug and so do not have much freedom of manoeuvre in price setting (see Appendix). International comparisons

suggest that drug prices in the UK are probably below those in many other developed countries and have increased more slowly.

#### Monitoring of prescribing

The GP is the key decision maker as far as NHS costs are concerned since the patient does not pay a charge related to the cost of the drug consumed and has no medical or pharmacological expertise. GPs have little incentive to keep drug costs down because:

- (a) the saving in the drug bill will be spread over all tax payers and so the individual GP will receive an insignificant financial benefit from even very large reductions in the cost of drugs he prescribes;
- (b) a reduction in the number of prescriptions he writes will probably involve him in spending more time with each patient and thus increases his work load.

The DHSS attempts to keep GPs aware of the cost of drugs by sending out information on the comparative costs of different preparations in the same therapeutic sub-group and on especially expensive drugs.

GPs' prescribing costs are monitored by collating the information on the prescription forms sent by chemists to the PPA. The PPA sends to each GP and to the DHSS details of his prescribing costs in one randomly chosen month each year. FPCs are informed each month of the average prescription cost of prescriptions written in their area, though information on individual GPs is not given. If a GP's average prescription cost is more than 25 per cent higher than the FPC average for his area a detailed analysis of the pattern and cost of his prescribing is prepared for a senior medical officer in the DHSS and a regional medical officer contacts the GP to discuss his prescribing. The GP may also be visited if his prescribing pattern is unusual. In 1977 1267 doctors were contacted for these reasons. If the doctor's prescribing costs remain high he is visited by a senior medical officer. The matter may then be referred to the local medical committee and if it agrees

that the GP's prescribing is in excess of what is reasonably necessary, an estimate of the excess cost incurred is made. After receiving the recommendations of the local FPC the Secretary of State specifies the sum the FPC should withhold from the GP's remuneration. No GPs have been referred to their local medical committee in this way in recent years.

# CRITICISMS OF PRESCRIBING IN GENERAL PRACTICE

#### Over-prescribing

GPs are alleged to prescribe in too large quantities and the allegations are supported by reference to the large amounts of drugs recovered in public appeals for the return of unused medicines. When the GP is uncertain of the precise length of drug treatment required by a patient he is more likely to err by over-estimation that under-estimation since the latter will involve him in writing a further prescription.

#### Mis-prescribing

Concern is often expressed that prescriptions are inappropriate, ineffective or unnecessary, especially in the case of psychotropic drugs (sedatives, hypnotics, tranquillizers, anti-depressants, stimulants and appetite suppressants) which account for about 15 per cent of all drug prescriptions. Prescription forms often contain inadequate information for the chemist: a study of Swansea GPs prescription forms in 1970<sup>7</sup> found that a quarter were indadequate by British National Formulary standards.

Criticism is also expressed of ancillary staff (usually the GP's receptionist) writing prescriptions. The Swansea study found that 10 per cent of prescriptions were written by receptionists and that nearly half were inadequately completed. Receptionists are more likely to write repeat prescriptions, especially perhaps in cases where the GP feels that he cannot do much for the patient. In a 1976 Newcastle study<sup>3</sup> some three-quarters of barbiturate prescriptions were

written by the receptionists. In such cases adverse drug reactions or changes in the patients condition are less likely to be brought to the notice of the GP and the treatment modified accordingly.

#### **Expensive prescribing**

Despite the fact that doctors have very little financial incentive to prescribe the cheapest of the set of therapeutically equivalent drugs there is evidence of price sensitivity amongst doctors in some cases. However, this sensitivity is not complete, since more expensive drugs are not immediately driven off the market and there is still scope for some cost reducing substitution in prescribing.

#### SUGGESTIONS FOR IMPROVEMENT

#### Patient charges

It is suggested that charges to patients for drugs prescribed would give them an incentive to press their GP to ensure that their prescriptions were for the cheapest effective drug in the smallest useful quantity. Given the relative ignorance of patients it is not clear that they can have much influence on the effectiveness or cost of drug prescriptions.

Charges for a dispensed item which do not vary with cost of the item are a very blunt instrument for securing efficient prescribing. The charge may reduce the total NHS drug bill by deterring some people from seeing their GP or from having his prescription dispensed when they have seen him or by encouraging the GP not to prescribe if he believes the patient could not afford the charge. UK experience, however, seems to indicate that charges have had very little effect on the number of prescriptions dispensed. This is probably because three fifths of prescriptions are exempt and the prescription charge is small, both absolutely and relative to the total cost in money and time of the patients visits to the GP and chemist. Prescription charges have therefore been seen primarily as a means of raising government revenue rather than reducing the real cost of the NHS drug bill.

Charges in which the patient pays a proportion of the cost of the drug, as for example in France, ensure that patients are conscious of the relative costs of different courses of treatment. For this reason they may be an improvement on prescription charges, which link the patient expenditure to the number of prescriptions rather than to the price and quantity of drugs prescribed. Experience in other countries, as health insurance is extended to cover drug expenditure, seems to indicate that patients do respond to changes in the proportion of drug costs that they bear. For example in Windsor, Ontario, members of a scheme in which patients paid only a small prescription charge consumed drugs costing nearly twice as much as non-members who paid the entire cost of the drugs themselves.<sup>5</sup>

If patients pay a large percentage of the cost of drugs they may substitute private insurance for public insurance thus defeating the intention of the charge, since there will then be no link between the patient's consumption and his expenditure. Alternatively, a small percentage charge may have insufficient incentive effect. One possibility might be a percentage charge coupled with a maximum total payment in any period, so that patients are relieved of the necessity to ensure against occasional very large expenditures.

Patients could be required to pay the chemist for the full cost of drugs supplied and allowed to claim back all or part of the cost from the DHSS. Patients would become aware of the cost of drugs, but there are a number of difficulties:

- (a) the scheme would increase administration costs since there are considerably more patients than chemists and it would impose additional costs on patients including the time required to claim their reimbursement;
- (b) some patients, especially those usually considered most in need of free treatments, might not claim;
- (c) there would be no financial incentive on those who do claim to keep

drug costs down.

#### Limited lists

In this system patients receive any drugs on a list of essential and effective drugs free of charge, but must pay the full cost of drugs not on the list. This avoids some of the possible inequity which is felt to arise when health care is rationed by price. Furthermore provision can be made for exceptional cases in which GPs can argue that a particular patient requires an off-list drug. The threat of removal of a drug from the free list provides a powerful additional sanction for the government in its attempts to control other areas of the drug companies' activities. There is a possibility that patients may persuade doctors to prescribe more expensive items on the list as substitutes for excluded items, thus increasing total drug costs. This is unlikely to be significant if lists are comprehensive and exclude only ineffective drugs, expensive drugs with equivalent substitutes and over the counter drugs. The Australian free list, for example, covers 90 per cent of the prescriptions written although only some 50 per cent of the products on the market.

Very rough DHSS estimates made in the early 1970s, indicated that a scheme which they considered would be acceptable to GPs, pharmacists and the public would have saved the NHS about £10m per year. This figure however, is the financial saving to tax payers which exceeds the real resource saving resulting from the reduced production of off-list drugs as patients reduce their demands when faced with the full price of these drugs. The net gain to the economy will be the real resource saving less the value of the benefit from the drugs no longer consumed. The net benefit from a list system will depend on how responsive patient demand is to the price of the off-list items; the more responsive the greater the benefit. The rather small net benefit however may be increased if the DHSS estimate of what is acceptable to the public and to GPs is too pessimistic and a shorter list is introduced.

Patient charges may have a smaller than expected effect on the drug bill

because the effect of charges will depend on the nature of the GP patient relationship and in particular on whether the GP acts purely as a passive information providing agent of the patient or whether he acts more paternalistically, prescribing what he feels to be the interests of the patient. In the latter case, if the GP is not influenced by the financial considerations for the patient, the imposition of charges may have little effect on prescribing.

If charges do reduce the drug bill they will have two offsetting disadvantages:

- (a) patients will no longer be insured against uncertain drug expenditures;
- (b) making health care dependent on ability to pay may be held to be inequitable. Average expenditure on drugs would be fairly low (see Table 1) but some groups of people have a large number of prescriptions each year. For example, a study of the Oxford area in 1974/5 indicated that the percentage of women in different age groups receiving at least 20 prescriptions per year increased with age from 0.5 per cent of the 15-29 age group to 20.2 per cent of the over seventy-fives.<sup>8</sup> The equity of any fundamental change in the charging system will clearly depend on the categories of exemptions from the charges.

#### Financial incentives for doctors

It has been suggested that the GPs should be given budgets for the drugs they prescribe, being allowed to retain a proportion of any underspending and required to contribute a proportion of any over-spending. Provision could be made for the GP's budget to be increased in special cases approved by the FPC or the Regional Medical Officer, to reduce the conflict between the interests of GPs and their patients.

Budgets could alternatively be set for an FPC area and monitored by the local medical committee. Individual GPs would have less direct incentive than with individual budgets, but might be more responsive to pressure from other local doctors. A proportion of budget savings might be available to be used locally either to reimburse GPs or to provide extra facilities.

#### Financial penalties

The current monitoring system might be tightened, with more frequent inspection of GPs' prescribing practices and more use of the existing power to withhold remuneration from doctors with unnecessarily high prescribing costs. This has the disadvantage, compared with GP drug budgets, of providing an incentive only to keep drug costs down to the agreed reasonable level. There is no gain to the GP from any further reduction in his prescribing costs.

The argument for providing financial incentives to GPs to reduce their prescribing costs is based on the presumably correct assumption that it is the GP who decides on the patient's treatment. At the very least the GP would be encouraged to influence patients' expectations about treatment. It should be noted that the expenditure on drugs in the hospital service is already subject to a budget since such expenditure must be met from the total of funds provided. There is no open ended financial commitment as there is with GP prescribing.

Any new scheme will need considerably more information on GPs' prescribing costs than is available now. GPs might well feel reluctant to participate in a system in which the rewards (financial or otherwise) from better prescribing were determined on the basis of one months prescriptions. This will probably require that the PPA increase its staff significantly or computerise its operations. Computerisation would also enable studies of the use of individual drugs to be made and thus increase the efficacy and safety of prescribing in some cases.

#### **DIRECT CONTROLS**

#### Generic prescribing

GPs may prescribe a drug by a brand or proprietary name, which indicates to the chemist that a particular type of drug manufacturerd by a particular firm is to be dispensed. Alternatively they may prescribe by the generic name which merely indicates to the chemist the type of drug to be dispensed. If GPs prescribe by generic name the chemist may then dispense the cheapest drug of that type, with a consquent possible reduction in the drug bill. Savings may not be large because:

- (a) some GPs already prescribe the cheapest brand or generically and
- (b) patent protection and the dependence of the effect of a few drugs on their form (pill, powder) limit the number of instances in which there are therapeutically equivalent alternatives.

#### Chemists' substitution

Many of the same arguments apply to the proposal to let chemists substitute the cheapest therapeutic equivalent for the GP's brand prescription. Such a scheme would require that the chemists' remuneration scheme be altered, because the percentage on-cost means that their income increases with the cost of the drugs dispensed. Alternatively, but probably administratively more expensive, prescription forms could be priced by the PPA on the basis of the cheapest therapeutic equivalent, rather than the actual drug dispensed.

#### **Quantity limitations**

GPs could be required to prescribe an amount sufficient for a maximum length of treatment on each prescription form and to give precise dosage and duration instructions. The DHSS estimated in the early 1970s that a maximum length of treatment per prescription of 2% would over, argues that GPs

(except for contraceptives) would save about £9 m per year. In New Zealand GPs are generally restricted to one weeks supply per prescription and an experimental lifting of the restriction in 1962/3 led to a six per cent rise in prescription costs. <sup>12</sup> GPs would need to spend longer writing prescriptions and patients under long courses of treatments would need to visit their chemists and doctors more frequently.

### Restrictions on prescribing by ancillary staff

The poor quality of prescriptions written by ancillaries has prompted calls for a ban on this practice. Any gains from less costly or more effective prescribing will have to be set against the greater demands placed on the more valuable time of the GP.

#### Registration with pharmacists

Individual pharmacists and their organisations have argued that patients should be registered with chemists, who would then be able to build up a drug record card for the patient, deal with repeat prescriptions and possibly dispense without prescription some items now on the prescription only list. This duplication of the doctors records may provide extra protection for patients, but is obtained at the cost of reduced competition between chemists and a loss of freedom for patients. The proposal perhaps owes something to the precarious financial state of many small pharmacies.

# IMPROVED INFORMATION

DHSS distributes the British National Formulary and the Prescribers Journal free in all GPs and gives a grant to assist the Consumers Association in the publication of the Drug and Therapeutics Bulletin. These publications together with various medical journals, commercial information services and drug advertisements together give clinical and cost information to GPs on the drugs available. There appears however, to be a need for something on the lines of the Proplist. This was a list of

products classified by the Standing Joint Committee on the Classification of Proprietary Product (the McGregor Committee) and circulated free to GPs. Drugs were classified by indications and listed according to their efficacy and their acceptability as judged by the Committee. Publication ceased with the dissolution of the Committee in 1970.

# Restrictions on sales promotion

In 1974 sales promotion expenditure by drug industry was about £45m or 14 per cent of its NHS sales or £1800 per GP. The industry employs about 3000 drug representatives and over 90 per cent of GPs receive at least one visit per week. An analysis of GPs' mail (including periodicals and direct mail advertisements) in 1974/5 indicated that a typical GP was exposed to over 1300 advertisements for 250 drugs each month. Between a third and a half of advertisements gave references for advertisers' claims, between 26 and 37 per cent of the references were not easily obtainable, only three out of five references were reports of clinical trials and less than a half of the clinical trials were judged to be adequate. Very few advertisements have contained cost information.

The DHSS has agreed with the Association of the British Pharmaceutical Industry that advertisements will now have to contain specified information on active ingredients, indications, contraindications, dosage, side effects, precautions and costs. Approved fact sheets will have to be placed before a GP when he is visited by a drug company representative. In addition the DHSS intend to reduce from 14 per cent to 10 per cent of NHS sales the amount of sales promotion expenditure allowed as a cost under the Pharmaceutical Price Regulation Scheme (PPRS)

There have been calls for a complete ban on sales promotion by drug companies, coupled with an improved DHSS information service. This would reduce drug prices, since drug company costs would fall and increase the efficiency and efficacy GP prescribing, though there would be some increase in DHSS costs. The industry however, argues that GPs

are satisfied with the present arrangements, consider representatives adequately informed about their products and the most useful source of information about new drugs.

## **Patient information**

Attempts could be made to educate patients not to expect that there is a drug for every complaint. Incorrect use of drugs by patients is believed to a prominent cause of ineffective treatment and clearer instructions could be provided.

### THE WIDER IMPLICATIONS OF THE SUGGESTIONS

#### GPs' work loads

Any reduction in prescribing may lead to an increase in the time a GP spends with each patient, since a prescription is commonly regarded as an acceptable way of ending the consultation. This must be set against the reduction in the drug bill.

# Pharmaceutical companies

Since firms' costs (including overheads and research and development) will not fall proportionately with sales, drug prices will rise under the PPRS if the volume of prescriptions is reduced. The rise in prices would not prevent total NHS expenditure on drugs falling and, since some countries are alleged to fix the prices of imported drugs by reference to their domestic price, the value of pharmaceutical exports might increase.

#### **Pharmacists**

A smaller volume and value of prescriptions will reduce chemists' revenues and profits and lead to a further decline in the number of chemists'shops unless chemists' remuneration is increased.

## **ISSUES**

The evidence to the Royal Commission raised a number of issues for consideration:

# (a) financial incentives

- should patients pay for prescriptions or a proportion of the cost of drugs or should there be a limited list and how extensive should it be? Should any group be exempted from charges?
- 2 if GPs are given budgets how are these to be determined? should they be on an individual or FPC basis?

# (b) controls

- are controls on prescribing an unacceptable reduction in GP's clinical freedom and are they preferable to a voluntary system with information and peer review?
- 2 what forms might control take?

# (c) information

- should GPs be given greater and more detailed information about their prescribing costs? Ought the PPA's operation to be computerised to achieve this?
- 2 ought the DHSS to provide information on the comparative effectiveness of drugs which are claimed to be for the same indication?
- 3 ought there to be further restrictions or a complete ban on the sales promotion activities of drug companies?

The second secon

THE PLANE AND EXPLORED THE TANK TO THE PLANE AND THE PLANE

33

The second secon

A STATE OF THE STA

And the state of t

and the second second second second

# mortemateles tot

and the state of t

ANGELIA ON MARGINA ANGENTAL NO

and the state of t

sur detelle ed et sånd þryfig. En svikkirkur kolaniskur þjáld

# REGULATION OF PHARMACEUTICAL PRICES

The DHSS finances the provision of drugs to patients but does not directly control the quantity bought. It does however attempt to ensure that the prices that it pays for drugs supplied by the NHS are 'fair and reasonable' by means of the Pharmaceutical Price Regulation Scheme negotiated with the Association of British Pharmaceutical Industries. It applies to all companies supplying medicines which are prescribed under the NHS. It covers any human pharmaceutical, whether proprietary or non-proprietary, other than those advertised to the general public.

# Financial returns

Drug firms provide estimates each year to the DHSS on their financial performance in the previous year and their expected performance in the current year. These returns are intended to give sufficient information on costs and sales to enable the DHSS to judge whether the prices which have been charged are fair and reasonable. The reasonableness of prices charged is determined primarily by reference to the rate of return on capital employed earned by the firm on its NHS sales. If the DHSS regards the firm's rate of return as unreasonable, it enters into negotiations with the firm to reduce that rate of return either by price cuts or by repayment of profits in exceptional cases. The DHSS has not direct control over the way in which the firm adjusts its prices so as to lower its rate of return. In the case of firms which are heavily dependent upon the sales of one product however, a reduction in its profits would have to be made by manipulation of the price of that product.

# **Profitability**

The reasonableness of the profits earned by the individual companies

on their NHS sales is a matter for negotiation between the DHSS and the company. The DHSS pays regard to the circumstances of the individual company, the contribution which it makes or is likely to make to the economy, including foreign earnings, investment, employment or research, the special characteristics of the pharmaceutical industry and the profitability of UK manufacturing industry as a whole. Hence different rates of return may be regarded as reasonable at different times or for different companies. In particular those companies with large export earnings tend to argue that any reduction in their UK prices will have an adverse effect on their export earnings. This is because the prices paid by importing countries are often linked by the government of those countries to the price charged in the domestic market of the company.

# Comparative price tests

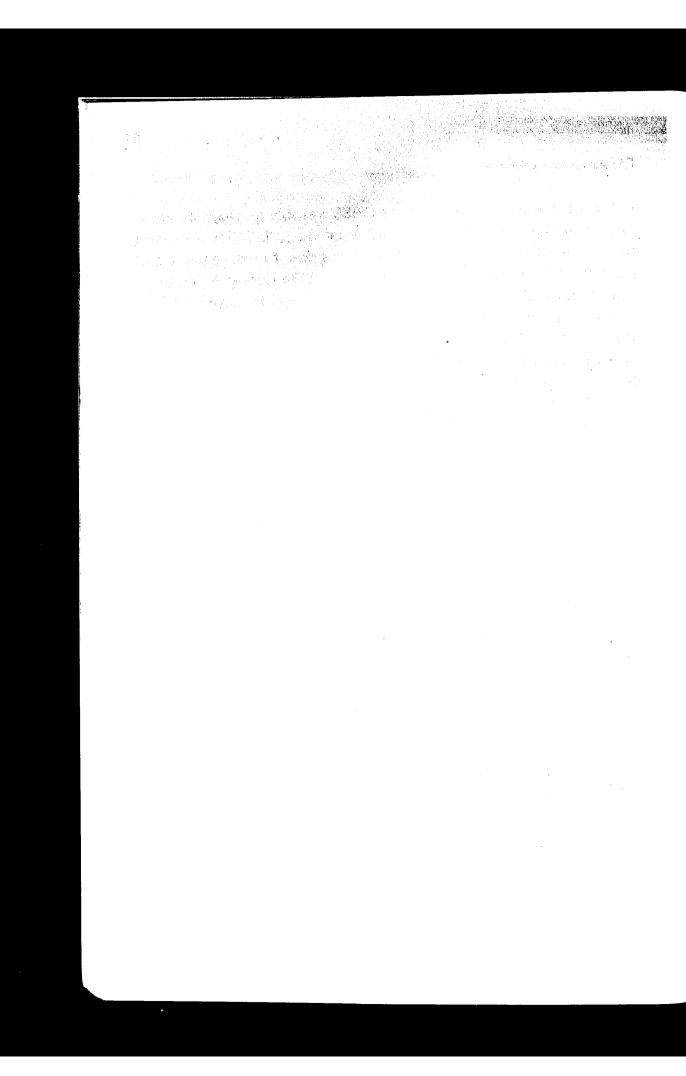
In some cases the DHSS may seek to establish the reasonableness of a firm's prices more directly. If the overseas sales of the firm amount to not less than 20 per cent of its total sales the UK price may be compared to a weighted average of its overseas prices. If the firm does not have significant overseas sales the price may be compared to that of a similar product on the UK market. Since UK prices are generally lower than elsewhere this procedure is now rarely used though overseas prices are sometimes used to cross-check DHSS views on the price.

#### Notification of price increases

Firms undertake to give DHSS at least four weeks notice of their intention to raise their prices and to state the amount of the proposed increase and the reason for it in sufficient detail to satisfy the department that the increase is justified. Firms may assume that the department is satisfied unless they receive a reply to the contrary within two weeks. In many instances all negotiations and most requests are dealt with within two weeks.

# Effect of the scheme

In the early years of the scheme the DHSS was able to negotiate some price reductions. More recently however rapid cost inflation has meant that, if the scheme has had any effect, it has been to reduce the rate of price inflation. For the period from 1964 to 1974 Cooper found that drug prices in Britain had fallen relative to those on the continent.<sup>2</sup> This may be due to the influence of the PPRS but the devaluation of the pound over the period also had an effect. The DHSS and drug companies disagree on the absolute profitability of the drug industry but both accept that the rate of return has fallen over the period since 1970. It is not clear to what extent this is due to the PPRS since the trend has been apparent since the 1950s.



- 1 ABEL-SMITH, Brian Value for money in health services London, Heinemann, 1976 pp v 230
- 2 COOPER, Michael H. Substitute competition and the international pharmaceutical industry. Australian Journal of Pharmaceutical Services. vol 6 No. 4 December 1977 pp 113
- 3 FREED, A. Prescribing of tranquillisers and barbituates by general practitioners. British Medical Journal 20 December 1976 pp 1232-1233
- 4 GREAT BRITAIN. PARLIAMENT Report of the committee of enquiry into the relationship of the pharmaceutical industry with the National Health Service. (Chairman: Lord Sainsbury) London H.M. Stationery Office, 1967 pp v 232. Cmd 3410
- GREENLICK, Merwyn R and DARSKY, Benjamin J. *A* comparison of general drug utilization in a metropolitan community with utilization under a drug prepayment plan. *American Journal of Public Health.* vol 58 No. 11, November 1968 p 2121
- 6 LAVERS, R.L. A demand model for prescriptions University of York. Institute of Social and Economic Research. July 1977 (Unpublished working paper).
- 7 Prescribing in general practice. Journal of the Royal College of General Practitioners. Supplement No. 1, vol 26, 1976
- 8 SKEGG, J and others. *Use of medicine in general practice. British Medical Journal* 18 June 1977 p 1561
- 9 SMITH, Tony. Restrictions in NHS prescribing in Australia. British

Medical Journal 13 January 1979 p 99

- 10 Sources of information for prescribing doctors in Britain.Office of Health Economics. London 1977 pp 24
- 11 WADE, O.L. Prescribing PHILLIPS, C.I. and WOLFE, J.N. editors. Clinical practice and economics. Tunbridge Wells. Pitman Medical, 1977 pp 141-160
- 12 WARDELL, William M. Control of drug utilization in the context of a national health service: the New Zealand system. Clinical Pharmacology and Therapeutics. Vol 16. No. 3 part 2 1975 p 585

This paper describes the system of dispensing in the NHS outside the hospital sector, discusses the complaints about declining numbers of chemists shops and examines the proposed remedies made in the evidence to the Royal Commission on the NHS.

# **OUTLINE OF THE SYSTEM**

# Role of the pharmacist

The pharmacist's formal role is to dispense medicine prescribed by general practitioners but he is also a source of advice to patients. An Office of Population Censuses and Surveys study of access to primary care in 1977 found that 15 per cent of those interviewed had gone to a chemist for advice instead of their GP in the previous year. The pharmacists is often used either as a substitute for a GP or is a first point of contact with the primary care system.

## Dispensing statistics

In 1977 there were 11027 chemists shops, 534 appliance contractors and 6 drug stores in contract with FPCs in Great Britain, with chemists shops dealing with over 99 per cent of prescriptions dispensed by FPC contractors. On average chemists shops in 1977 dispensed 31 861 prescriptions at a total cost to the NHS of £59894, of which three quarters was net ingredient cost. The total cost of dispensing (i.e. noningredient costs) by FPC contractors in 1975 in Great Britain was £145m. The number of chemists and appliance suppliers declined by 24 per cent and 70 per cent respectively from 1963 to 1977. There appears to have been a somewhat slower rate of decline in Scotland than in England. The decline in the number of shops and the rise in the number of prescriptions in this period led to a hundred per cent rise in the average number of prescriptions dispensed each year per shop. Relatively larger establishments, however, have not become more

important: the largest 10 per cent of establishments accounted for 25.3 per cent of prescriptions in 1963 and 24.2 per cent in 1976. There is a wide range in the size of chemist establishments; in 1976 162 establishments dispensed under 6000 prescriptions per annum and 53 dispensed over 120 000.

## **Finance**

As explained in the previous paper chemists buy their supplies of drugs direct from wholesalers under normal commercial conditions and are reimbursed by FPCs. The monthly payment to chemists for NHS dispensing consists of:

- (a) ingredient costs. This is the wholesale cost of drugs and appliances calculated by reference to the Drug Tariff, less a percentage deduction which rises with the number of prescriptions dispensed each month. This deduction is meant to allow for any quantity discounts which are available to larger chemists;
- (b) a container allowance of 2.8p per prescription for each prescription dispensed;
- (c) a dispensing fee per prescription. This averages about 24½p but varies according to the type of prescription;
- (d) a percentage on-cost allowance on the wholesale cost of drugs and appliances dispensed, before the application of a pecentage deduction referred to in (a). From 1978 the percentage on cost allowance has been higher for smaller pharmacies than for larger pharmacies. The charge was intended to reduce the rate of closure of small pharmacies.

Additional payments are made to chemists for remaining open outside normal hours on approved rota service, and for supplying oxygen therapy equipment and gas. Additional supplementary payments are also made to about 200 pharmacies which dispense a small number of

prescriptions and which are considered to provide essential pharmaceutical services in certain, mainly rural, areas.

The dispensing fee and on-cost allowance are the chemist's remuneration for his NHS dispensing (as distinct from reimbursement of the costs of items supplied). The remuneration is based on the average of the actual labour costs (including a notional salary for the pharmacists if he is self-employed), other overhead expenses such as rent, rates, light, heat, telephone, incurred in dispensing NHS prescriptions and provides also for a negotiated average net profit per prescription to cover stock holding and other capital employed in the business. Estimates of labour and overhead costs are based on sample enquiries, carried out jointly by the DHSS and the Pharmaceutical Services Negotiating Committee (PSNC) the chemists' representative organisation).

The position in Scotland differs slightly from that in the rest of Great Britain in that:

- (a) there is no percentage deduction from the wholesale cost of drugs and appliances; and
- (b) the percentage on cost has always declined with the number of prescriptions dispensed.

# Dispensing doctors

By arrangement with his FPC a GP may undertake to supply drugs and appliances for patients who would have serious difficulty in obtaining supplies from a chemist, or who, in rural areas, live at least one mile from the nearest chemist. The bulk of such GPs are reimbursed for their drug purchases by the FPC in a way similar to dispensing chemists. In 1977 in England 2621 (11.7 per cent) of GPs dispensed about five per cent of all prescriptions. There was an increase of 6.6 per cent in the number of dispensing doctors in England between 1963 and 1977, with a decline between 1963 and 1970 being just off-set by a rise in the

numbers between 1970 and 1977.

The Clothier Committee on GP prescribing in rural areas recommended that a new statutory body be set up to regulate significant charges in dispensing in rural areas. The proposals are being considered by the DHSS.

# Regulation of pharmaceutical services

Only registered pharmacists can be in control of general practice pharmacies and there must be a registered pharmacist in attendance when a pharmacy is open to the public. Prior to 1970 the academic qualification leading to statutory registration was either a degree in pharmacy or the Pharmaceutical Society's diploma. Since 1970 the only academic qualification has been a degree in pharmacy from one of the schools of pharmacy in the United Kingdom. Patients may have their prescriptions dispensed by any registered pharmacist in contract with their local FPC or health board. The FPC, in consultation with the Local Pharmaceutical Committee, stipulates chemists' hours of business and arranges for the testing of the quality and quantity of drugs and appliances supplied by chemists. FPCs have no powers to control the entry of new chemists into their area nor to control the location of chemists' establishments.

# DECLINING ACCESS TO CHEMISTS

The decline in the numbers of pharmacies gave rise to a large volume of complaints in the evidence to the Royal Commission about reduced access to chemists. Three main reasons are commonly suggested for the drop in the numbers of pharmacies:

- (a) a large but declining percentage of chemist revenues is from non NHS business and there has been increased competition for this trade from other retail outlets, such as supermarkets;
- (b) there has been a decline in the number of single handed GPs and

partnership of two GPs and a rise in the average number of GPs in each practice in England from 1.85 in 1963 to 2.51 in 1977. This is assocaited with a rise in the number of health centres over the 10 years from 1965 from 28 to 634 and about 17 per cent of GPs practiced from health centres at the end of 1975. On average each health centre contains 5.5 GPs. This concentration of GPs means that one larger pharmacy near (or in) the health centre takes the business previously done by a number of small pharmacies situated nearer the GPs' surgeries. Patients who do not visit the health centre or group practice to receive treatment and prescription may therefore have further to travel to have their prescriptions dispensed;

(c) it is also suggested that the increased number of dispensing doctors since 1970 has reduced the turnover of rural pharmacies and contributed to them going out of business. Given that a GP may not, in general, dispense if there is a chemist within one mile of the patients home, GP dispensing cannot take trade from existing chemists within this distance, but may affect chemists further afield to whom the patient might have gone if the GP had not dispensed. The PSNC argues that competition from dispensing GPs is unfair because they need not hold as comprehensive a stock as chemists, nor are they subject to the same checks and inspections.

## Unequal access

There are also complaints about the unequal provision of dispensing facilities, particularly between rural and urban areas. A very crude indicator of access is the ratio of the numbers of people on NHS dispensing lists to the number of chemists in each region. As table 1 shows there is considerable variation amongst regions. The table should however be interpreted carefully; firstly, it may hide considerable intraregional variations; secondly, access is also a question of the costs (time and money) for getting prescriptions dispensed and hence of distances from chemists and the cost and convenience of transport; and thirdly, account must be taken of the morbidity of the population served and

TABLE 1

ACCESS TO CHEMISTS ENGLAND 1977

	England	Northern	Yorkshire	Trent	East Anglia	N.W. Thames	N.E. Thames	S.E. Thames	S.W. Thames	Wessex	Oxford	South West	West Midlands	Mersey	North Western
Chemists per 10 000 persons on NHS prescribing list	1.935	1.963	2.052	1.758	1.881	2.155	1.912	1.882	1.949	2.004	1.580	2.201	1.660	2.095	2.059
Average no. of prescriptions per person on NHS prescribing lists	6.47	6.91	6.84	6.49	6.27	5.71	6.25	6.22	5.88	6.36	5.63	6.55	6.49	7.14	7.42

NOTE: Figures relate to those chemists in contract with FPCs on the last day of 1977. Some carried out no dispensing during the year.

hence of the need for dispensing. If the number of prescriptions per person is taken as an index of need, the table indicates that need and access tend to be correlated.

# RESTRICTED ROLE OF CHEMISTS

Chemists have complained that their role is unduly restricted and that greater use could be made of their knowledge. Patients could be instructed more thoroughly in the use of prescribed medicines, repeat prescriptions could be handled by chemists, some prescription only drugs could be dispensed without prescription by the pharmacist, and GPs given pharmaceutical advice and information by chemists. Involvements of chemists in any scheme to reduce drug expenditure would require that the system of remuneration be altered. At the moment the percentage on cost means that any rise in the net ingredient costs of drugs dispensed increases the income of the pharmacist.

#### POSSIBLE REMEDIES

#### Changes in remuneration

The suggestions which are made to prevent further closures favour smaller chemists, since it is mainly they who are closing. One suggestion is that the advisory role of the chemist be recognised and remunerated by a fee which is unrelated to the volume or the value of the prescriptions dispensed. The DHSS introduced a differential percentage on cost in 1978 with a percentage larger than the current rate for establishments dispensing under 44 000 prescriptions per annum and a smaller percentage for those dispensing more than this. The effect is therefore to redistribute revenue from the largest 16 per cent of chemists (dispensing about one third of prescriptions) to the smaller chemists. The DHSS provided an additional £5m on the total remuneration of pharmacies to aid the transition to the new system. It has also been proposed that dispensing could be brought fully within the NHS, with chemists being paid a salary and all costs being borne

directly by the NHS.

## Controls of location

Many pharmacists suggested that the entry of pharmacists to the FPC pharmaceutical lists should be controlled in the same way as general medical services. FPCs would have the power to restrict entry of new pharmacists, if the area was already considered to be adequately supplied with chemists. A Central Pharmaceutical Practices Committee would ensure that uniform criteria were applied.

A less comprehensive proposal is that FPCs should be able to prevent 'leap frogging', that is new pharmacies being opened within say, half a mile of new health centres and capturing the trade from existing shops.

# Registration of patients

Patients could be required to register with a pharmacist who would then have the sole right to dispense their prescriptions. The supporters of this proposal argue that this would enable the chemists to build up a drug record for each patient and reduce the possibility of adverse reactions. It would reduce patients freedom of choice as regards dispensing and tend to reduce competition between chemists for non-NHS items, which are often bought at the same time as prescriptions are filled.

# Controls of GP prescribing

The PSNC has argued that the right of GPs to dispense should greatly curtailed and that there should be more flexible regulation in rural areas, with part-time pharmacies, collection and delivery services being permitted.

#### DISCUSSION

Both patients and chemists are concerned about the decline in the

number of chemists, but this does not in itself imply that remedial action is required. The decline in the number of chemists has occurred mainly amongst smaller independent establishments and appears to be the result of economics in scale in dispensing; the roughly proportional relationship between remuneration and size; and the fact that charges to patients at time of use are unrelated to costs.

### TABLE 2

# **OWNERSHIP OF CHEMISTS SHOPS 1975**

Independent chemists		7308
Boots		1168
Co-ops		355
Other Nationals		802
Health Centre Pharmacies		16
	Total:	9649

NOTES: The table refers to establishments open for the whole of 1975 in England and Wales.

Source: DHSS

The present system of remunerating chemists makes payment roughly proportional to the number of prescriptions dispensed and, since costs rise less than proportionately with size, larger shops have greater rates of return on capital. The current level of remuneration is insufficient to keep smaller shops in business but provides at least an adequate return to the larger shops. Any system in which the patient does not pay directly for drugs prevents chemists competing on price and hence removes one spur to the replacement of smaller and more costly shops. Changing to a scheme in which remuneration rises less than proportionately with size (as with the differential on cost scheme) will reduce the incentive to open larger and more efficient shops.

With commodities where consumers pay a money price related to the

cost of supply, there is often a range of prices, reflecting cost differences, for the same commodities from different shops. The smaller shops are not driven from the market because some consumers are prepared to pay higher prices, because smaller shops are more convenient or offer a better service. The same mechanism cannot operate in dispensing because consumers do not pay for their drugs and so do not have to choose between the different combinations of money cost and inconvenience involved in using different shops. All chemist shops require a patient to pay the same price per prescription and so patients are solely concerned with the convenience of using different shops. They will therefore protest against any reduction in number of shops because they do not bear the increased costs of maintaining a wider network of smaller and less efficient shops.

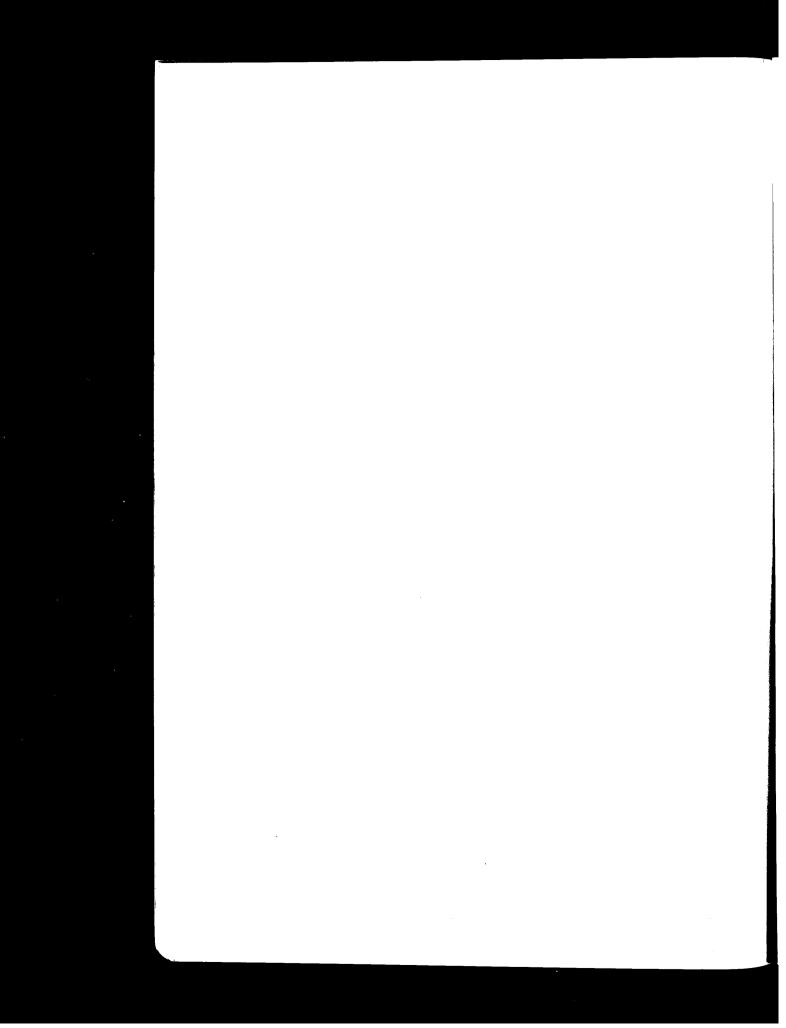
In order to decide whether the rate of closure is too rapid (or even too slow) it is necessary to value the benefit to consumers of easier access to dispensing, for example by estimating the additional cost imposed on consumers when pharmacies close. These benefits must then be compared with the increased resource costs of a more extensive system of smaller shops. The change in resource costs may not be identical with the change in the financial cost to the NHS, since under the present system, chemists' remuneration is not fully linked to costs that chemists bear.

Recent surveys of access to primary care show that relatively few patients experience difficulties in getting a prescription dispensed. Nine out of ten people interviewed in the OPCS study said that they found it very or fairly easy to get to 4 chemist from where they lived, and about the same proportion usually went to one which was less than one mile from their home or from the doctor's surgery. Difficulties were greater in rural areas, where the OPCS survey reported that 15 per cent of people living in these areas found it fairly or very difficult to get to a chemist, particularly the elderly disabled and those who did not own cars.<sup>3</sup> However, the study by the National Consumer Council<sup>4</sup> for the Royal Commission concluded that the community pharmacy service was generally satisfactory from the patient's point of view and the results of the OPCS survey suggested that access is a serious problem in relatively

few cases.

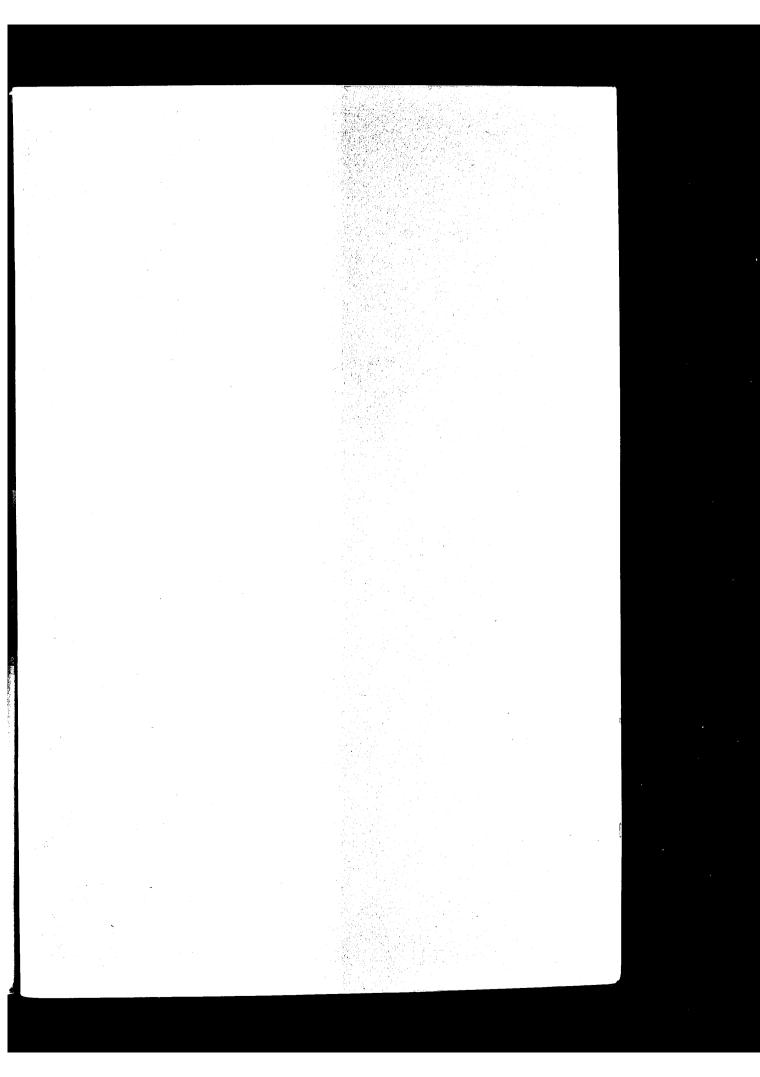
The evidence to the Royal Commission raised a number of related issues:

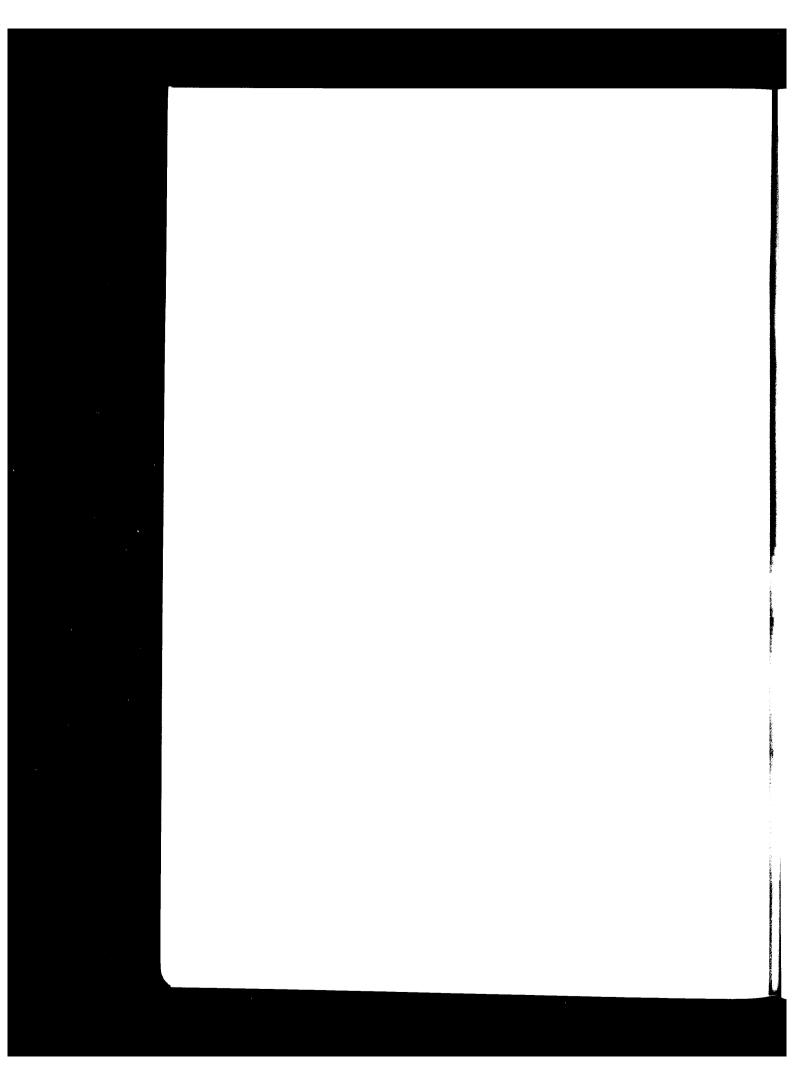
- (a) does the greater convenience of a wider network of dispensing chemists outweigh the resulting greater costs?
- (b) if so, is the decline in the number of smaller shops best halted by a change in remuneration or in the regulation of dispensing?
- (c) ought the advisory role of chemists be recognised and encouraged by a change in the basis of their remuneration?

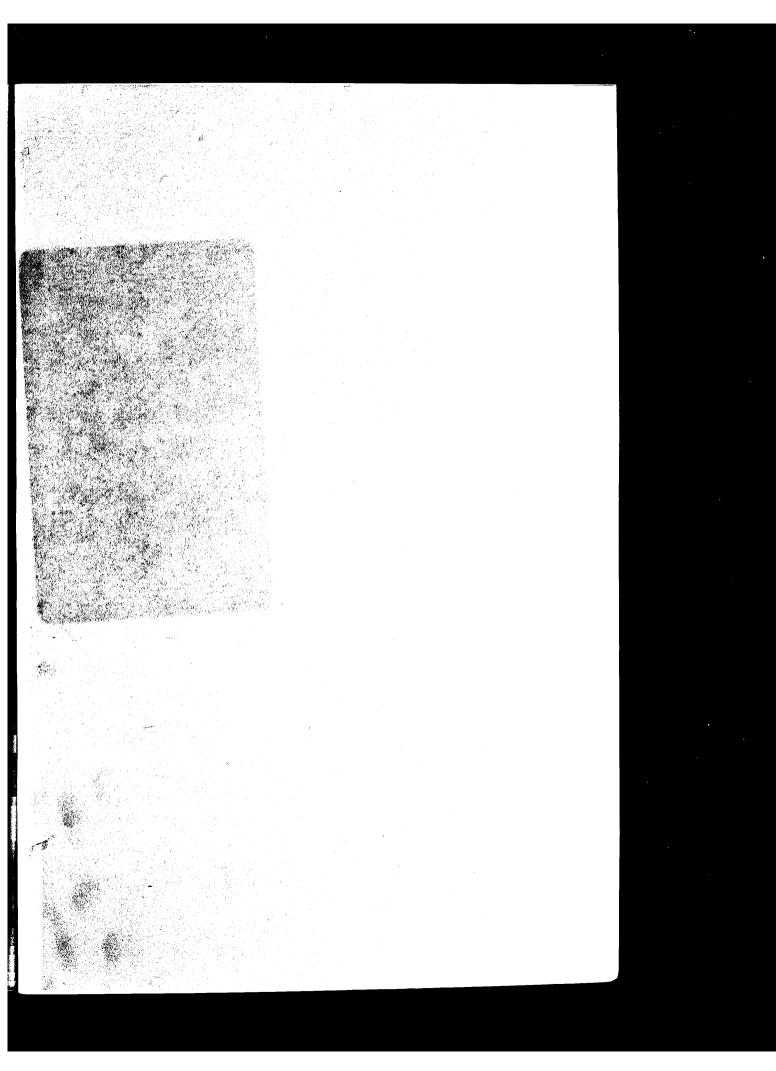


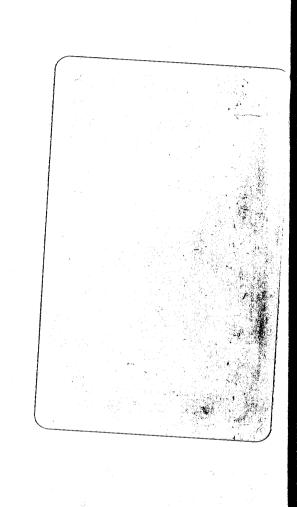
- 1 GREAT BRITAIN. DEPARTMENT OF HEALTH AND SOCIAL SECURITY Report of the Enquiry into the Prescription Pricing Authority by R.I. Tricker. London H.M. Stationery Office. 1977
- 2 GREAT BRITAIN. DEPARTMENT OF HEALTH AND SOCIAL SECURITY Report of the National Joint Committee of the medical and pharmaceutical professions on the dispensing of NHS prescriptions in rural areas. (Chairman: C.M. Clothier Q.C.)
- 3 GREAT BRITAIN. OFFICE OF POPULATION CENSUSES AND SURVEYS Access to Primary Health Care Services (Made available to the Royal Commission and to be published in due course).
- 4 GREAT BRITAIN. ROYAL COMMISSION ON THE NATIONAL HEALTH SERVICE Research Paper Number 6 Access to Primary Care. London H.M. Stationery Office. 1979 p x 62.

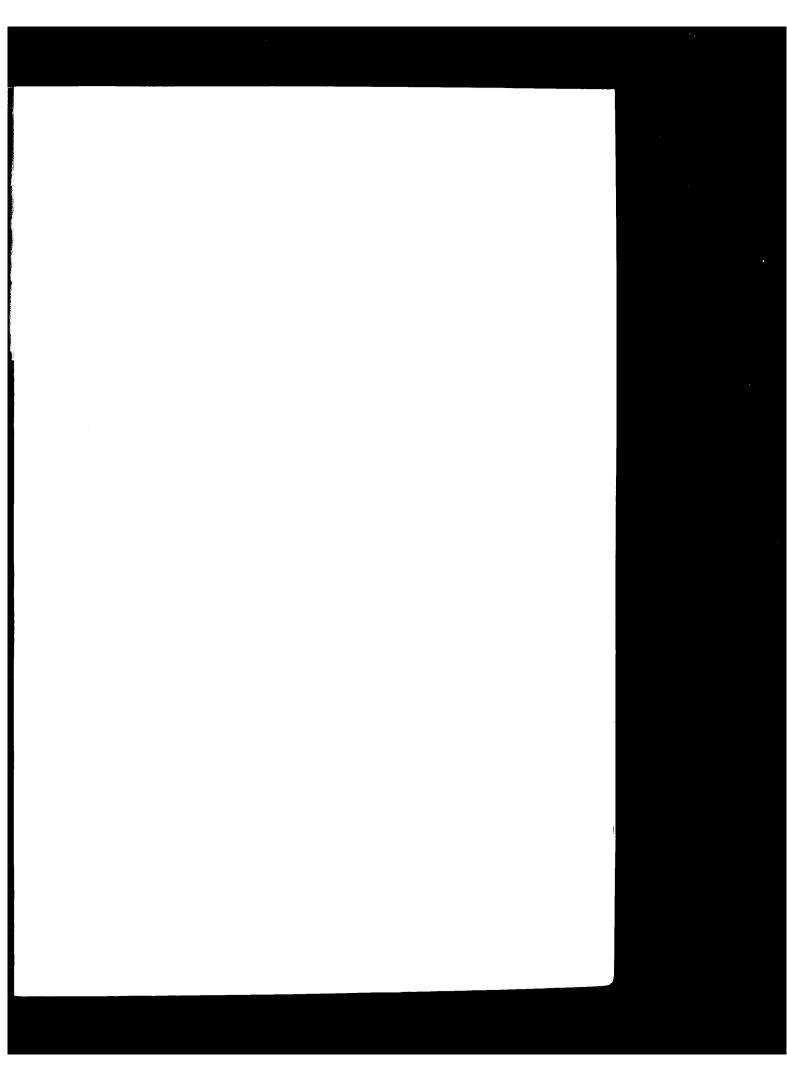


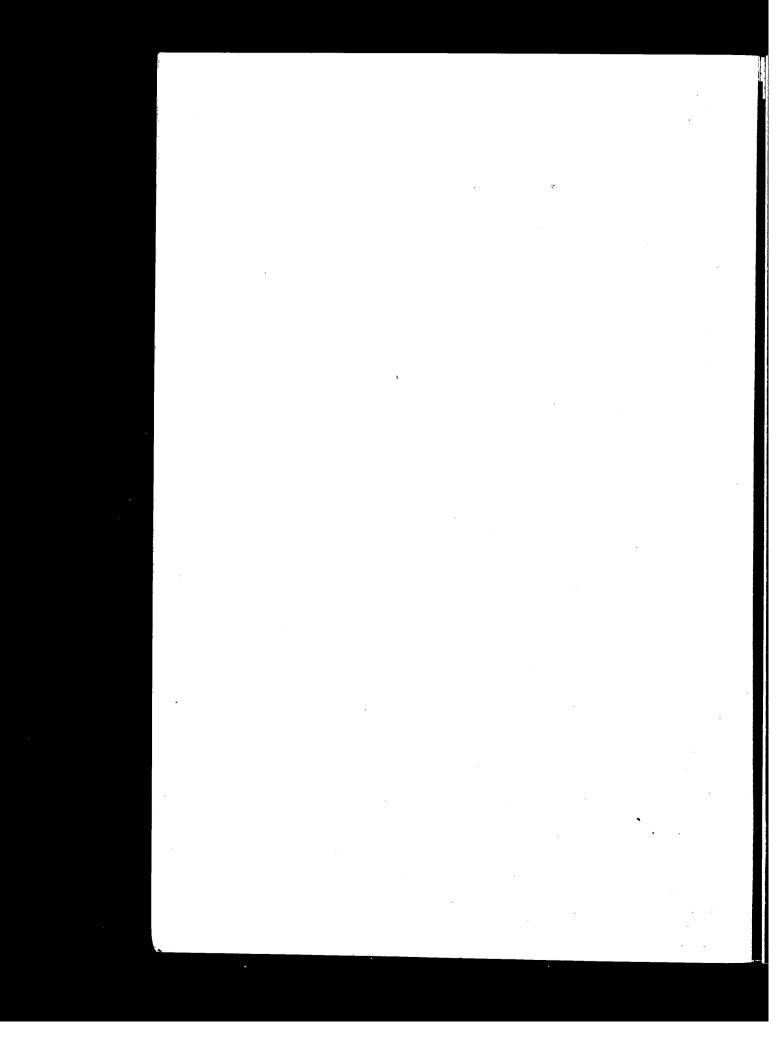












H S E GRAVELLE who is currently lecturer in economics at Queen Mary College, University of London, was seconded to the Royal Commission on the NHS for two years as their economic adviser. His special interest is the economics of the public sector and he has worked on a number of aspects of health service economics including screening for breast cancer.

# LIST OF TITLES IN THIS SERIES

Paper N	No.						
RC1	Conflict and Consensus: An analysis of the evidence submitted to the Royal Commission on the NHS						
RC2	Essays on Nursing						
RC3	The Expanded Role of the Nurse						
RC4	Ideology, Class and the NHS						
RC5	Consumers, Community Health Councils and the NHS						
RC6	NHS Finance and Resource Management						
RC7	Deputising Services, Prescribing in General Practice and Dispensing in the Community						
RC8	Health Education and Self Help						
RC9	International Comparisons of Health Needs and Services						
RC10	Health Service Objectives						
RC11	The NHS and Social Services						
RC12	Multi-disciplinary Clinical Teams						
RC13	Aspects of Dentistry						
RC14	The Nation's Health and the NHS						
and	Further papers prepared by the Secretariat and Members of the Royal Commission on <i>Hospitals, Management</i> and <i>Manpower</i> in the National Health Service						