

MEDICAL PRACTICE

General Practice Observed

B.M.A. Planning Unit Survey of General Practice 1969

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British Medical Journal, 1971, 4, 535-543

Summary

A postal survey of 776 principals representative of general practice in Britain is described. Doctors working in health centres are compared both with colleagues in other group practices and with doctors who have no group practice allowance. Young doctors are mainly in group practice, especially health centres; the proportion of doctors who are not in groups is diminishing steadily, and they are mainly older. With some notable exceptions health centres provide most space, equipment, and staff; group practitioners in privately-owned premises spend more of their money on their practices, more often use appointment systems, and tend to make more efficient use of premises and staff. Overall, however, the picture is still one of general practice geared to the needs of practitioners working alone. Premises with space for sophisticated organization and for future teaching needs are unusual.

Scotland, the North of England, and Wales have fewer young doctors. Average lists are higher in the North of England, and less money is invested in practice premises.

Young doctors look for modern premises and the tools and staff for the job. If their career expectations are to be met the tremendous improvements made in some practices must be extended rapidly to the remainder.

Introduction

To form an up-to-date picture of the characteristics of general practitioners and the influence of group or health centre

practices the B.M.A. Planning Unit Working Party on Primary Medical Care did a postal survey among general practitioner principals in Britain in August 1969. At that time 437 principals were practising from health centres under Section 21 of the N.H.S. Act 1946 or the equivalent Scottish Act, 10,297 were receiving group practice allowances (G.P.A. doctors), and 11,903 were neither in health centres nor receiving group practice allowance (non-G.P.A. doctors).

A total sample of 776 principals was drawn from each of these practice types, weighted in favour of health centre practitioners to allow valid comparisons among the three types. Altogether 74% of the health centre practitioners replied, as did 84% of the G.P.A. doctors and 69% of the non-G.P.A. doctors. The sampling procedure used for Scotland differed from that used for England and Wales. The total population was stratified by executive council area and 180 doctors were selected in such a way that the number of doctors drawn from each area was proportionate to the total number of doctors in that area. This procedure did not over-sample health centre doctors; all types of general practitioners had an equal chance of being selected. The overall picture of general practice was derived from reweighting numbers in each type of practice to conform to the national proportions. Differences between practitioners grouped by type of practice and by region* are mentioned only when they were statistically significant at at least the 5% level.

Details of General Practitioners

DISTRIBUTION BY AGE OR YEAR OF QUALIFICATION

Probably only 14% of practitioners were under 35 (Table I) and 23% 55 or over, compared with Cartwright's figures¹ for 1963 of 20% and 20% respectively. Thus the proportion of recently

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*The regions into which the respondents were grouped were Scotland, Wales, Northern England (comprising Cheshire, Lancashire, Yorkshire, Lincolnshire, Northumberland, Durham, and Cumberland), the Midlands (comprising Shropshire, Staffordshire, Warwickshire, Nottinghamshire, Leicestershire, Derbyshire, Norfolk, Suffolk, Rutland, Huntingdonshire, and Northamptonshire), and the South (all remaining counties).

TABLE I—Percentage Distribution of General Practitioners by Year of Qualification and Type of Practice

Year of Qualification	Health Centre	G.P.A.	Non-G.P.A.	Total
Before 1940	22	17	26	22
1940-1949	25	32	34	33
1950 and after	53	50	38	44
Not answered		1	2	1
No. of responding G.P.s (= 100%)	157	213	206	576

qualified practitioners had decreased and that of those aged at least 55 had increased.

Relatively more younger doctors were working in health centre and G.P.A. practices than in non-G.P.A. practices. The proportion of practitioners who qualified before 1940 was greater in Scotland, the North of England, and Wales than in the Midlands and South, and the proportion of recently qualified doctors correspondingly smaller. Thus relatively more of the most recently qualified, compared with those who qualified some time ago, had settled in the Midlands and South.

QUALIFICATIONS

Doctors can still enter general practice with only a basic medical qualification, but 46% of respondents had at least one further degree or diploma (Table II). While there were no differences among doctors in different types of practice more doctors who

TABLE II—Qualifications Held by the 576 General Practitioners

	Percentage of G.P.s
Basic medical qualifications only	54
Higher qualifications in hospital-based medicine:	
Diploma in obstetrics	20
M.R.C.P.	2
F.R.C.S.	1
Diploma in anaesthetics	2
Diploma in child health	3
Diploma in psychological medicine	1
Diploma in forensic medicine	1
Academic qualifications, M.D.	4
General practice, M.R.C.G.P.	13
Not answered	6

had settled in the Midlands and South had additional qualifications than those working elsewhere. Doctors aged 34 or less had additional diplomas more often than their senior colleagues except in the case of the M.D. degree, where all holders were over 45. Since this latter degree is obtainable usually only by thesis probably fewer doctors are now willing to prepare for it. Only 13% of doctors said they were Members of the Royal College of General Practitioners, a proportion much lower than the known membership in 1969. Many Members of the College, however, may not have regarded the M.R.C.G.P. as an additional postgraduate qualification.²

HOSPITAL APPOINTMENTS

Thirty-three per cent. of the doctors had honorary or paid hospital appointments. Doctors aged 34 or less were much more likely to hold such an appointment—70% compared with 25% of those aged 55 or more. As many as 34% of doctors with hospital appointments held at least three clinical sessions a week (Table III). Most were paid through a contract with the hospital (70%) but 10% shared a hospital bed fund and 20% enjoyed both types of remuneration. Thirty-six per cent. of

TABLE III—Percentage of 178 Practitioners with Hospital Appointments with Varying Numbers of Half-day Sessions a Week

No. of half-day sessions Percentage of general practitioners	No. in practice:						Irregular	Not Answered
	1	2	3	4	≥5			
.. .. .	22	27	23	8	3	15	2	

those with appointments (12% of the total sample) undertook regular night or week-end duty for the hospital.

REMUNERATIVE APPOINTMENTS OUTSIDE HOSPITAL

As many as four-fifths of the respondents had non-hospital appointments (Table IV). Doctors aged 35-54 were most heavily committed. Those in G.P.A. practices were more likely than non-G.P.A. doctors to undertake industrial work. Health centre doctors were more frequently involved than either of the other two types in child health and family planning clinics.

TABLE IV—Percentage of the 576 General Practitioners with Remunerative Appointments outside Hospital

None	19	Appointed factory doctor	10
Insurance company examinations	59	Independent school	9
Local authority antenatal work	23	Children's home	7
Local authority postnatal work	22	Home for handicapped	3
Industrial firm	20	School medicals	3
Old people's home	18	Prison	2
Family Planning Association	12	Geriatric clinic	1
Local authority child health work (age < 5)	12	Others (miscellaneous)	22

VOLUNTARY PROFESSIONAL ACTIVITIES

Forty-two per cent. of respondents took an administrative part in voluntary professional affairs. Sixteen per cent. were on a local medical committee and the same proportion were on local or regional committees of bodies such as the B.M.A. and R.C.G.P.; 6% served on executive councils, 5% on regional hospital boards or hospital management committees, 4% with local authorities, and 4% on national professional bodies. Fifty-three per cent. of general practitioners aged 45-54 were engaged in one or more of these activities, significantly more than any other age group, but such involvement was unrelated to type of practice.

RESEARCH

Thirty-three per cent. of respondents had been involved in research of some kind within the previous three years, some in more than one field. Most of this work was in collaboration with the R.C.G.P., pharmaceutical industry, and universities. The breakdown was as follows: therapeutic trials 23%, clinical research 13%, epidemiological studies 14%, practice organization 15%, and patient care 11%. Only 4% of doctors had published their findings in this period. Practitioners qualifying between 1940 and 1959 pursued a research interest more often than those who qualified earlier or later irrespective of type of practice.

TEACHING AND SELF-EDUCATION

A large number of practitioners (30%) were engaged in some form of teaching activity—13% taught medical students and 4% medical graduates, while as many as 19% taught voluntary organization workers and 7% nurses or health visitors. Some were also engaged in more general health education in country areas, 7% teaching adults and 2% talking to schoolchildren.

TABLE V—Percentage Distribution of General Practitioners by Number in Practice

	1	2	3	4 (or more*)	5	≥6	No Answer
Cohen report, 1952 ³	44	33	15	8			
Planning Unit, 1969	23	27	23.5	14.5	6	4	2

* Cohen report³

TABLE VI—Percentage Distribution of General Practitioners by Location of Main Surgery and by Region and Type of Practice

	Total	Health Centre		G.P.A.		Non-G.P.A.	
		England and Wales	Scotland*	England and Wales	Scotland	England and Wales	Scotland
Own or partner's residence..	31	3		20	19	40	47
Other adapted residence ..	39	24		44	36	38	20
Adapted office or shop ..	7	2		5	13	5	27
Health centre ..	2	63		1	1	1	
Other centre ..	15	5		24	23	7	6
Not answered ..	6	3		4	7	8	
No. of responding G.P.s (= 100%) ..	449	152		143	70	154	51

* The figures for Scotland were too small to give percentages.

Seventy-seven per cent. of respondents had attended a recognized postgraduate course within the preceding 12 months, substantially more than in 1963.¹ Those most likely to have attended were aged 35-44 (82%) and those least likely the under-35s (64%).

TYPE OF PRACTICE

The proportion of doctors in groups of three or more had more than doubled since 1952 (Table V).³ Neither G.P.A. nor health centre practice was synonymous with partnership, 3% and 15% of these types of doctors respectively not being members of a partnership.

One in every five of those in partnerships did not have a written agreement or contract. In half of all partnerships the principals were all considered equal, and in a fifth parity was usually achieved within three years. Thirty per cent. of the respondents, however, were in partnerships where equal status of all partners was not the rule.

Significantly more doctors in the Midlands (84%) than in any other region were in G.P.A. practices, but the difference between the North of England (68%) and the South (51%) was as striking.

Practice Premises

LOCATION

In 1963 75% of family doctors had their main surgeries at their own or a partner's home;¹ we found this proportion to be 31% (Table VI). Premises in an adapted residence, office, or shop predominated and purposebuilt buildings were relatively uncommon. The non-G.P.A. practices were most likely to operate from a principal's home.

The number of branch premises had been reduced between 1963 and 1969, the proportions of doctors with one or more branch surgeries being 59%¹ and 46% respectively. Twelve per cent. of general practitioners worked in practices which had at least two branch surgeries in addition to their main premises. Doctors practising in health centres were more likely than those practising elsewhere to have at least one branch surgery. Moreover, the health centre was the main surgery for only 63% of them.

OWNERSHIP

In 1969 77% of doctors worked in premises owned by one principal (44%) or by a partnership or group collectively (33%); a further 12% rented the premises from a private landlord. Only 8% of practices had their main surgery in buildings owned by local authorities or the Scottish Home and Health Department. Two per cent. of respondents did not answer. Thus most doctors had personal capital tied up in the business (Table VII). Capital investment in main and branch premises differed by type of practice—57% of G.P.A. doctors had an investment of

TABLE VII—Percentage Distribution of 281 General Practitioners by Amount of Personal Capital invested in Premises

Full partner's share* (£)	<500	500 -	1,000 -	2,000 -	≥5,000	Not answered
Percentage of G.P.s	6	5	12	32	17	28

* Only those who had capital invested

£2,000 or more, whereas 48% of non-G.P.A. doctors and only 26% of health centre doctors had the same commitment. Regional differences emerged also—for example, 50% of respondents in the South of England had investments worth £2,000 or more, compared with only 41% in the North of England.

PRACTICE ACCOMMODATION

There were wide differences among practitioners in the facilities they had for their work—for example, only 43% had exclusive use of a consulting room. Doctors in non-G.P.A. and health centre practices more often enjoyed this facility than those in G.P.A. practices, two-thirds of whom shared with partners or other staff or both. Seventy-five per cent. of all doctors had no separate examination room.

Overall 84% of doctors were in premises with a secretary's office, 52% a room for records, 37% a treatment room, 12% a doctors' meeting room, and 7% a retiring room for ancillary staff. Such rooms, however, were often multipurpose. Doctors in health centres were more likely to have additional rooms than G.P.A. doctors, and these in turn had more such rooms than non-G.P.A. colleagues. For example, in England and Wales a treatment room was available to 71% and 31% respectively. A doctors' meeting room was also more common in health centres (31%) than in G.P.A. practices (22%) and non-G.P.A. premises (4%). Creche and coffee-bar facilities were uncommon in all types of practice, but when reported they were most likely to be in health centres (10% and 16% respectively). On the other hand, though patients' lavatories were universally available in both health centre and premises used by G.P.A. doctors 29% of premises in non-G.P.A. practices were without them.

Car-parking facilities were relatively undeveloped—50% of doctors had space for off-street parking for themselves but only 20% had this for patients, more commonly at health centres (44%) than in G.P.A. and non-G.P.A. practices (20% of each). Generally the larger premises, those having special-purpose rooms, and those with better car-parking facilities were in the South and Midlands rather than in the North of England or Scotland.

CLINICAL EQUIPMENT

At first sight it would appear that many practices lacked equipment necessary for adequate patient care (Table VIII), since there had been little change since 1963.¹ For instance, E.S.R. tubes were still uncommon and few practices had an electro-

TABLE VIII—Proportion of 576 General Practitioners with Clinical Equipment

Equipment	Percentage of G.P.s with Equipment	Percentage of G.P.s using Equipment in Previous 12 Months
Urine analysis equipment	85	96
Minor surgical equipment	78	91
Proctoscope	70	85
Refrigerator	69	95
Vaginal speculæ	68	89
Haemoglobinometer	35	65
Microscope	34	64
Laryngoscope	26	67
Electrocardiograph	10	72
Vitalograph	5	80
X-ray machine	1	40

cardiograph. Direct access to hospital diagnostic services, however, was considerably better than it had been in 1963.

Doctors in health centres more commonly reported having haemoglobinometers, electrocardiographs, and peak-flow meters on their premises than those in G.P.A. and especially non-G.P.A. practices but were no more likely to have the other types of equipment listed. Doctors who qualified before 1939 possessed a laryngoscope (40%) more often than colleagues who qualified after 1950 (24%), which helps to explain why this instrument was found more commonly in non-G.P.A. than in health centre or G.P.A. practices. The earlier the date of qualification, however, the less likely it was that the doctor would have a vaginal speculum or proctoscope—36% of those qualifying before 1939 possessed the former and 43% the latter, compared with 89% and 72% respectively of those who qualified after 1960. Age differences relating to other items were not significant.

COMMUNICATIONS EQUIPMENT

The percentage of practices having particular items of communications equipment is shown in Table IX. The proportion of doctors in practices with a typewriter has increased only from 60¹ to 69% since 1963; on the other hand, in 1963 5%¹ of practitioners used dictating machines, and in 1969 the figure was 38%.

TABLE IX—Percentage of the 576 General Practitioners with Communications Equipment on the Premises

Typewriter	69
Dictating equipment	38
Surgery home/telephone line	21
Paging system	7
Car radio communication	3
Microfilm facility	1

RECORDS

Most principals with one or more partners kept their records in an integrated alphabetical file, but those in health centres were more likely than those in G.P.A. practices to maintain separate lists. Only 53% of all doctors locked their files after surgery hours; the practice was most common in health centres. Only 15% of practices maintained an age/sex register, 3%, almost all in health centres, filed the patients' records in family folders, 2% used a diagnostic index, and 2% also had a computer link with hospital or local authority services. Only 1% maintained a street index of patients' addresses.

Arrangements for Patient Care

NUMBER OF PATIENTS

The number of general practitioners who qualify in the U.K. has been declining steadily, while the population has been

expanding. The average list size in 1970 was 2,478,⁴ compared with 2,267 in 1958, the latter being the lowest national average since the start of the National Health Service. Our 1969 survey reflected the increased pressure on general practitioners; only 17% had lists of less than 1,500, compared with 26% in 1962.¹ Nor had the proportion of lists above 3,500 been reduced. The largest lists were most common in the North of England (Table X).

TABLE X—Percentage Distribution of General Practitioners by Personal List Size and Region

No. of Patients	Ministry of Health 1962 ¹	B.M.A. Planning Unit Survey, 1969					
		Total	Scotland	Wales	North	Mid-lands	South
<1,500	26	17	27	27	13	16	15
1,500-2,499	28	31	39	23	23	28	32
2,500-3,499 (to 3,600 for Ministry of Health)	31	37	25	32	42	35	37
≥3,500 (>3,600 for Ministry of Health)	15	16	8	18	22	19	14
No answer					1	1	1
No. of responding G.P.s (=100%)		576	126	22	136	84	208

The proportion of practitioners with private patients seems to have declined dramatically. Cartwright and Marshall¹ estimated that 77% had private patients in 1963, and 14% more than 100; the corresponding figures in 1969 were 58% and 5%. Regional differences found by Cartwright and Marshall also persisted—in the Midlands and the South combined an average of 73% had some private patients, while in Scotland, Wales, and the North of England the comparable average was only 41%. G.P.A. doctors were most likely to have private patients (67%); there was little difference between those working in health centres (51%) and non-G.P.A. practices (56%).

PATIENT ACCESS

Seventy-four per cent. of practitioners estimated that as many as 9 out of 10 of their patients lived within three miles (4.8 km) of the surgery. Furthermore, only 2% said that the surgery was situated more than a quarter of a mile (400 m) from the nearest bus stop; 69% said that there was a stop within 100 yards (91 m). Unexpectedly, 54% of the doctors had surgeries within two miles (3.2 km) of hospital casualty departments, but 24% were at least five miles (8 km) away. Curiously health centre doctors (41%) were significantly more likely to be within one mile (1.6 km) of the nearest hospital than G.P.A. (24%) or non-G.P.A. (25%) doctors.

DOCTOR-PATIENT RELATIONSHIP

All doctors working as partners were much more likely to see patients drawn from the entire practice list than only patients on their own list, the figures being 81% and 17% respectively; a further 2% did not answer the question. Nevertheless, the practice was related to the size of partnership—in practices of two or three partners 84% saw patients from the whole practice, compared with 74% of those in firms of four or more partners. In other words, patients were more likely to see their own doctor in the larger than in the smaller partnerships. Patients of health centre practices were more likely than those of G.P.A. practices to be seen only by their own doctor, despite the fact that there were more small partnerships in the former than in the latter.

Doctors in partnership were also asked whether they habitually referred patients with difficult clinical problems to other partners. Sixty-one per cent. said they did; referral was more common in partnerships of three or more doctors (69%) than in partnerships of only two (52%).

TABLE XI—Percentage of 574 Practitioners with Special Interests

Obstetrics and gynaecology	47
Contraception, sexual, or mental problems	35
Paediatrics	30
Psychiatric or psychological problems	26
Dermatology	16
Child or adolescent behavioural problems	14
Cardiology	12
Anaesthetics	11
Diabetes	8
Geriatrics	3

Most doctors claimed that they had one or more special clinical interests which they could pursue in addition to their general work (Table XI).

APPOINTMENT SYSTEMS

In 1963 a mere 36% of family doctors had any kind of appointment system;¹ in 1969 47% of the doctors made appointments for all surgery sessions, and only 34% made none. Appointment systems, whether for all or only some sessions, were more often operated by doctors in G.P.A. practices (89%) and in health centres (86%) than by those in non-G.P.A. practices (51%).

OFF-DUTY ARRANGEMENTS

There was a surprisingly wide variation in the number of patients for whom a doctor on emergency duty was responsible. Of the 85% of respondents who answered this question 55% said that they were on call for fewer than 12,500 people; for 22% the population was between 12,500 and 22,000, and for 8% 20,000 or more.

Most doctors had either a rota for off-duty cover within the partnership or one with other doctors in the area. Eighteen per cent., however, used an emergency deputizing service on week-nights, 16% at week-ends, and 6% for holidays. Emergency deputizing services were more common in England than they were in Scotland or Wales. A locum was infrequently employed for night or week-end cover; 25% used them for holiday relief. Younger doctors aged 34 or less were significantly more likely to make all their off-duty arrangements within the partnership alone, because proportionately more of them were in partnership practices.

Telephone or commercial answering services were used by 11% of respondents during normal working hours. The transfer call system was relatively popular both during week-ends, when 22% of practitioners used one, and at nights and week-ends, when 45% did so.

USE OF HOSPITAL DIAGNOSTIC AND TREATMENT FACILITIES

The R.C.G.P. and B.M.A. have fought hard to secure open access to diagnostic laboratory, x-ray, and physiotherapy departments, and the extent of their success may be judged from Table XII.^{5 6} Overall the situation has improved; nevertheless, progress is uneven and relatively fewer have access to E.C.G. and contrast media x-ray facilities than is the case with

TABLE XII—Percentage of General Practitioners with Access to Hospital Diagnostic Facilities

Service	1963 Cartwright and Marshall ¹	1963 Manchester University ⁵	1968 G.M.S. ⁶	1969 B.M.A. Planning Unit
Haematology	94	90	99	96
Bacteriology	85	87	94	83*
X-ray { Chest	92	79	{ 90	88
X-ray { Skeleton	61			
Contrast media X-ray	40	49	75	58
E.C.G.	8	11	39	40

* Includes virology.

other services specified. Our lower figure for bacteriological facilities compared with earlier ones reflects our inclusion of virological tests under this heading and so is not directly comparable. While no variations by type of practice or region were encountered, Cartwright and Marshall's observation¹ that rural doctors in 1963 enjoyed better access to radiological, haematological, and bacteriological facilities than their urban colleagues was still true in 1969, the figures being 73% and 54% respectively.

Thirty-seven per cent. of respondents thought their hospital diagnostic facilities were inadequate. The main reasons for dissatisfaction among these doctors were lack of access to E.C.G. (77%) and contrast media x-ray (15%) facilities and unreasonable delays in completing the procedure requested (20%).

Access to physiotherapy had not changed. Cartwright and Marshall¹ found that in 1963 25% of doctors had direct access to this service, compared with our figure of 24%, rural doctors were again better off than their non-rural colleagues.

Practice Staffing and Management

Only 3% of all respondents said there was a full-time assistant in the practice, and the same proportion said there was a trainee; 13% of all practitioners had at least one part-time medical assistant in the practice.

In 1969 97% of practitioners had some non-medical help, compared with 66% in 1963;¹ 38% had two or three such people, and nearly 60% had four or more. Compared with ancillary clerical staff, however, the number of practitioners with nurses, health visitors, or other medically-related staff was small (Table XIII). In particular, doctors in non-G.P.A. practices seldom had nursing staff of any kind working in their practices.

When asked who was responsible for major decisions concerning their premises and equipment 72% of doctors in partnership said that such decisions were collective ones, 4% named a senior doctor or a nominee from among the other principals, 12% said decisions were taken jointly by doctors and other staff, and 6% made other, unspecified arrangements. Doctors working in health centres more often shared decision-making with personnel other than doctors than did doctors in other types of practice, but doctors in those G.P.A. and health

TABLE XIII—Percentage of Doctors with Medically-related Staff Employed or Attached to their Practice

	Weighted Total	Health Centre		G.P.A.		Non-G.P.A.	
		England and Wales	Scotland*	England and Wales	Scotland	England and Wales	Scotland
Nurse (surgery)	41	78		63	27	26	18
Nurse (domiciliary)	32	45		43	27	23	35
Health visitor	35	65		45	43	26	22
Midwife	26	59		37	21	16	24
Social worker	3	14		1		6	
P.S.W./M.W.O.†	1	20		13			
Dispenser	5	14					
Total sample		100 (152)		100 (143)	100 (70)	100 (155)	100 (51)

*The figures for Scotland were too small to give percentages.

† Psychiatric social worker/medical social worker.

centre practices where decision-making was shared, either with other staff or by doctors collectively, expressed greater satisfaction than did those where decisions were taken either by a senior partner or by the medical officer of health.

Responsibility for the day-to-day running of the practice was normally left to a secretary working with a doctor. Interesting differences, however, emerged by type of practice. Only 23% of doctors in health centres and 29% in G.P.A. practices were themselves responsible for the day-to-day running of the practice, compared with 51% of those in non-G.P.A. practices. Twenty per cent. of the doctors in health centres said a local authority officer, nurse, or health visitor was responsible for the routine activities of the centre.

Seventy per cent. of the doctors had no regular meetings to discuss cases or medical problems, and only 22% said that they held them once a week or more often. Types of practice seemed to make no difference.

Discussion

The problems of general practice in the past 25 years have been extensively documented.⁷⁻⁸ During the 1960s several important changes were introduced. Specific incentives were introduced to promote group practice, the employment of ancillary staff, and to aid recruitment in depressed areas. The system of remuneration was altered in the "Charter."⁹ Improvements in practice premises were sought through the General Practice Finance Corporation¹⁰ and in an acceleration of the health centre building programme. For the first time on any scale local authorities and general practitioners began to work more closely together through the attachment of nurses and health visitors. The Royal College of General Practitioners and several enthusiastic practitioners laid the foundations of modern practice organization, management, and team-work. These and other measures were designed both to improve the scope and potential for patient care in the community setting and to increase the doctors' satisfaction with their conditions and content of work.

What effect have these measures had? This study showed that many of the changes that had occurred since the surveys of Cartwright and Marshall¹ and Cartwright¹¹ in the early and middle 'sixties were confined to comparatively few practices, especially groups working either from privately owned or health centre premises. The age of the doctor emerged as a crucial determinant of many features of a practice, older doctors being likely to retain the professional life-style and methods of work characteristic of single-handed practice and younger doctors to employ new methods. The regional variations encountered are of particular importance because they show that areas with the poorest practice resources coincide with those which are known to have the greatest health problems.

Many of the results reported are self-explanatory. Thus we confine our comments to certain broad issues and their implications for further development and research.

PHYSICAL RESOURCES OF GENERAL PRACTICE

Though the number of doctors practising from their own or a partner's house fell appreciably during the decade only a small proportion in 1969 were in purpose-built premises. The picture of premises which emerges, whether in converted or purpose-built property, still reflects a design suited to doctors working by themselves. This was especially true of non-G.P.A. practices; however, it was disappointing to find that several health centres and a high proportion of G.P.A. premises were without a treatment room, separate office space, or staff retiring/meeting rooms. Generally health centres provided more space than G.P.A. premises, probably because most were purpose-built and of very recent construction. During our visits, however, we

saw some first-class surgeries in converted premises and some very inadequate purpose-built G.P.A. premises and health centres. The age and origins of a building are not a foolproof guide to the completeness of the facilities it offers.

The effects of lack of space are seen in many practices today—for example, nurses frequently improvise in a consulting room, and the additional clerical and reception staff needed for appointment systems and comprehensive secretarial services are often squeezed alongside patients and records in the waiting/reception area. The survey confirms the urgent need for a large-scale rebuilding programme and an approach to the design of new premises which both caters for a multidisciplinary team and allows for the expanded role in teaching¹²⁻¹⁴ intended for many practices in the future. Ideally, methods of construction should be used which will permit a measure of flexibility sufficient to allow for developments which cannot yet be foreseen. We suggest that expert interprofessional committees of doctors, architects, and administrators will need to be established by the proposed area health authorities to guide those responsible for building or adapting premises. They should not only draw on the experience of local doctors who have studied their own requirements and on the *Design Guide*,¹⁵ produced by the Department of Health and Social Security, but should feed back information to the Department.

An important deterrent to rehousing doctors in premises they themselves own is the heavy demand which existing land values and building costs may make on personal capital. Indeed, for the young practitioner purchase of a share in new or extensively modified group practice premises can probably now nearly match his spending on a house. This may explain why relatively more young doctors are in health centres than in G.P.A. and non-G.P.A. practices. The recent agreement¹⁶ to increase the return on capital invested in purpose-built premises may help to alleviate the burden, while the improvement grant scheme has been helpful with some conversions. Nevertheless, the existing regulations for improvement grants specifically exclude alterations which are being made to accommodate a new group practice formed by the merger of two or more existing practices. This restriction, which acts as a disincentive at a time when rehousing is most needed, should be removed.

The trend to group practice has led to a modest concentration of premises, though not on the scale we expected. We were surprised also to find that nearly half the sample of doctors had at least one branch surgery. Probably most patients still live within easy reach of their doctor's surgery, so that few ambulant patients should have difficulty in reaching their doctor.

EQUIPMENT

The earlier surveys of Cartwright,¹¹ Cartwright and Marshall,¹ and Collings¹⁷ drew attention to the poor equipment of general practice for both clinical and communication purposes. The possession of specified items of clinical equipment show little overall change from 1963; however, doctors in health centres were significantly more likely than those in G.P.A. and especially non-G.P.A. premises to have the use of expensive items such as the electrocardiograph. Similarly, the most advanced communications equipment was found in health centre and G.P.A. practices. It was especially encouraging that a high proportion of younger doctors were in practices where there was a wider range of equipment of all types. Nevertheless, complacency would be misplaced. Important items of clinical equipment were lacking in many practices; we were surprised to find that about a third of respondents were in practices where there was no typewriter, and only two-fifths had a dictating machine, despite its obvious advantages.

The introduction of group practice seems to have had little effect on the use of recording aids. Many devices such as the

family folder and diagnostic index¹⁸⁻¹⁹ may appeal only to the research enthusiast, but we expected more doctors to use an age/sex register,²⁰ which is an indispensable device for monitoring and evaluating patient care.

It is unlikely that in future young doctors will want to join practices which cannot provide them with proper premises and the tools for the job. Some of these who are now being trained in well-equipped teaching practices may be persuaded to seek career opportunities abroad if the expectations they have formed during their training period cannot be fulfilled.

PRACTICE STAFFING AND MANAGEMENT

One of the features of the Charter was the scheme which now allows for the reimbursement of 70% of the salaries of practice ancillary staff. Doubtless this provision has led to the substantial increase in the proportion of practices now employing clerical staff. Doctors should be able to delegate most of the day-to-day running of the practice, which previously they had done themselves. Nevertheless, many do not do so.²¹ It would be interesting to know why.

The past few years have also seen a great increase in the number of local authority nurses and health visitors attached to practices.²² Health centres and G.P.A. practices have benefited most, since local authorities evidently find it more difficult to attach their staff to single-handed doctors or two-man practices. These difficulties turn partly on the need to divide the time of a limited number of nurses among several doctors working separately and partly reflect different attitudes among doctors themselves, bearing in mind that the non-G.P.A. doctors were on average considerably older than those in groups. Moreover, some local authorities still seem reluctant to depart from traditional ways of using their nursing staff and thus restrict team-work in patient care. We believe that the advantages of attachments have been well demonstrated and that the proposed area health authorities should give priority to them.²³⁻²⁵

The employment of more people in a practice underlines the need for research into the functioning of small groups and management problems. If qualified staff are to be retained jobs have to be carefully designed to combine interest, responsibility, and the prospect of promotion; different people will require different forms of training. Management skills are needed in practice administration, especially in the larger groups. Educational and employing bodies will have to work together closely in future to provide training and career guidance in practice management. The interest now being shown in these problems by the Royal College of General Practitioners and the Association of Medical Secretaries augurs well for the future.

ARRANGEMENTS FOR PATIENT CARE

An outstanding problem of general practice is how to enable doctors to provide continuity of care at a time when other professional groups in and outside the Health Service are seeking shorter working hours and more leisure. We found that groups usually opt for a rota arrangement, while single-handed and two-man practices more often use commercial deputizing services, particularly in the least attractive areas of large cities, where deputizing services have probably prevented the total breakdown of a general practitioner service. They do not, however, appear to be the method of choice. Patients in an emergency are likely to be better served by a doctor who at least has ready access to their records and is known to them as a member of the practice. Moreover, many patients would prefer a practitioner who is experienced in coping with emergencies in the home rather than a young and often inexperienced hospital doctor, who is the mainstay

of many deputizing services. Most general practitioners emphasize the importance of continuity in patient care; it is *the* characteristic which distinguishes general practice in Britain from any other specialty, and on it is based the whole philosophy of the personal doctor. Has the profession given enough thought to the possible implications and repercussions of a break with this tradition if impersonal deputizing services are ever to become general?

Another important aspect of patient care is how far patients can consult the doctor of their choice. Two developments have affected this right—namely, the increase in group practice and the widespread adoption of appointment systems. Though most doctors in partnership regularly saw patients from their partners' lists, interestingly it was in the larger partnerships of four or more doctors, rather than in the smaller ones of two or three, that patients were most likely to consult their own doctor only. Fears that several doctors working together might dilute the personal doctor-patient relationship seem on the evidence of the survey to be unfounded.

Appointment systems became general in the 1960s. Mainly a characteristic of G.P.A. practices, and to a less extent of health centre practices, their increased popularity probably shows that most doctors find the method more effective than others. No direct evidence of how patients feel is available; individual doctors who have asked them have found that they welcome it. Nevertheless, some people have been concerned lest appointment systems make it more difficult for patients to see the doctor of their choice, or indeed any doctor, when the need arises.²⁶ These criticisms seem to apply most frequently when appointment systems are operated inflexibly and when there is insufficient supporting staff. More information about the effect of varying types of appointment systems on patients and their use of the service is needed.

EFFECT OF LIST SIZE ON PATIENT CARE

The decline in the number of general practitioners while the population has been expanding has increased the size of the average list. Naturally enough there is concern that increased pressure on doctors could cause standards of patient care to decline. Ancillary support, however, erodes the value of the "average list" as a general indicator of work load on satisfactory patient care. A modern group practice of four or five doctors will probably include six or seven full-time clerical staff and an equivalent number of nursing and health visitor personnel. It should be able to care more comprehensively for more patients than it could if the doctors were working alone. We believe that there is now a need to consider more sensitive ways of indicating the time a doctor has for patients, and hence now many patients he can care for. One method is to record consultation rates; another is to relate the number of medical, clerical, and medically-related staff to the practice population, expressing the ratio in terms of staff hours per 1,000 patients a week. But these methods even in combination are still relatively crude, and more thought needs to be given to ways of measuring the impact of team-work on patient care and work loads. The general adoption of "audit" techniques would help.

HOSPITAL DIAGNOSTIC AND TREATMENT FACILITIES

In the past decade direct access to diagnostic laboratory and x-ray facilities for most general practitioners has been a welcome improvement. It is difficult to see how patients can be cared for effectively without these facilities unless they are to be referred to outpatient departments for even the most elementary investigations. The survey suggested that 10% of the respondents did not have or were uncertain that they had direct access to any hospital diagnostic departments. If this is representative

of the country as a whole it implies that some 2,000 general practitioners looking after roughly $2\frac{1}{2}$ million patients are severely limited in the type of care they can provide.

Closer examination of the figures reveals certain specific deficiencies. In particular, too many general practitioners are still without access to contrast media x-ray facilities. Too many have no access to an electrocardiograph either in hospital or in their own practices. The absence of direct access to this facility in hospital was the cause of most of the dissatisfaction expressed with hospital diagnostic services. The fact that open access to hospital physiotherapy departments had not increased during the decade is also a matter of concern given the increasing prevalence of disabling conditions in an ageing population.

HOSPITAL APPOINTMENTS

We were surprised by the number of doctors who had at least three clinical sessions in hospital a week. Those who believe that general practice can survive only if those who man it play an increasing part in hospital medicine may welcome this development.^{27 28} We, however, view it with some misgiving. While some clinical assistantships may have an educational advantage for the general practitioner the adequate development of knowledge and skills required for patient care in the community setting may be inhibited when doctors engage excessively in hospital activity. It is wrong to consider all clinical assistant work as constituting a legitimate extension of general practice; much of it merely provides support to hospital specialties which are not directly related to general practice and may detract from patient care in the community.

RESEARCH AND EDUCATION

Research and education are areas of medicine with which general practice is popularly held to be unconcerned. At first sight this would appear to be the case with research; depressingly few doctors are engaged in research, and especially in publishing their results. Nevertheless, a direct comparison with other specialties on the basis of the proportion within each of doctors who engage in research could be misleading. While the proportion of general practitioners who have published studies in the past three years is low, the absolute numbers comprising some 400 doctors may well compare with the numbers publishing in other individual specialties.

In education the most dramatic change since 1964 was in the numbers attending recognized postgraduate courses, no doubt because continuing education has become linked to seniority payments, since doctors under the age of 35, most of whom would not be entitled to such payments, had attended courses less frequently than their older colleagues. While recognizing the necessity for continuing education we are not convinced that linking it with seniority payments inevitably enlarges or enriches general practitioners' knowledge and skills. Moreover, while continuing education is interpreted as attendance at formal courses, some of which appear to be of dubious value to the general practitioner, it fails to reward doctors who make use of wider opportunities for learning by analysing their own work or by observing and exchanging information with their peers. We think it would be more constructive to introduce a new payment specifically for education and unrelated to seniority. For example, the existing vocational training allowance could be extended throughout the doctor's career. Though agreement on criteria will obviously be difficult more imaginative ways of encouraging the continuing educational process and of validating its results should be considered.

Family doctors are not normally thought of as teachers, largely because until recently they have had little to do with training medical students or postgraduates. This situation is

now changing rapidly as vocational training is introduced and medical schools use general practice to extend clinical training beyond the hospital. It is also encouraging to find that many practitioners undertake work for voluntary organizations, and a substantial number, especially among those working in health centres, are engaged in more general health education. This aspect of their work is often overlooked.

TYPES OF PRACTICES COMPARED

The sharpest differences among types of practice are those between non-G.P.A. practices on the one hand and G.P.A. and health centre practices on the other. They relate mainly to premises, equipment, and nursing staff. Obviously small practices cannot muster the resources found in groups. They may not feel it necessary to do so, but their lack of resources does appear to be an important reason why young doctors are not entering non-G.P.A. practice.

The differences between G.P.A. and health centre practices are interesting. In terms of spacious premises and range of equipment health centres appear to have the advantage. G.P.A. doctors might counter by arguing that they make more economic use of premises—for example, by using consulting rooms to their full capacity. Whatever one's view evidently these differences are of degree only. Far more striking is the amount of capital the G.P.A. doctor has to invest, as compared with colleagues in health centres.

Another comparison is worth noting. Organizational aids seem to be most frequently used in G.P.A. practices and least in non-G.P.A. practices. Health centres fall somewhere between, probably because partnerships are less common than they are in G.P.A. practices, and because the main "innovators" in general practice had already organized themselves into groups before health centre building on any scale started. It will be interesting to see if this pattern persists when a higher proportion of the next generation's innovators are practising in health centres.

REGIONAL VARIATIONS

Regional variations were substantial. In Scotland, the North of England, and Wales relatively fewer doctors were recently qualified than in other areas. Similarly these regions were less likely to have doctors with a higher qualification or with previous experience in a teaching hospital before entering general practice. In the North of England particularly average lists were higher than in other parts of the country and opportunities for private practice fewer. Moreover, less money was invested in practice premises in the North than in the South and Midlands, but this difference may reflect differences in land and property values rather than the quality of premises.

The designated area payment seems to have been relatively ineffective as an incentive to recruitment. We know that the B.M.A. is concerned about this problem and about the difficulty of devising workable alternatives. One possibility might be to offer more grants or subsidies to individual practices wanting to make improvements. Expensive items of clinical and communications equipment, for example, could be dealt with in this way.

The maldistribution of manpower is not, of course, confined to general practice; hospital staffing is also more difficult in the same areas, and other studies have shown a similar situation in other professions, such as teaching and social work.^{29 30} The solution would seem to lie not only in providing specific incentives for individual professions but in making life in general in these regions more attractive to professional people and their families. The problem is one for the whole economy and is unlikely to be solved if treated in a piecemeal fashion.

Conclusion

This survey has lent strong support to the findings and recommendations of the B.M.A. Planning Unit Report on Primary Medical Care.⁷ Some general practices have been greatly improved. While the financial incentives and benefits associated with the Charter have existed for a comparatively short time, they have clearly been effective in inducing much needed changes. More and more doctors are now working in new and better-equipped premises from which they can offer higher standards of patient care through the application of team-work.

At the same time we do not underestimate the formidable task of modernization still to be undertaken. Though general practice is in a period of transition it is vitally important that the momentum of improvement in premises is maintained and increased if it is to hold its own as an attractive career. The single largest group of young doctors is still entering general practice and, among those who are contemplating a career in this branch of medicine, group practice seems to be the most popular. It is doubtful, however, whether the really advanced groups apparently desired by many young doctors are emerging fast enough to create the career opportunities they seek. The most recent evidence⁴ on recruitment is not encouraging, since the numbers of new entrants, and particularly of graduates born in the U.K., is hardly sufficient to replace older doctors who are approaching or already past normal retiring age.

We have gained a new perspective of health centres in this survey. Clearly they will have an increasingly important place in our Health Service, if only because they are proving economically attractive to many doctors. Nevertheless, the best of privately owned G.P.A. premises compare well with the best health centres. Both types of premises provide a better locus for general practice, but they can do no more. It is the way in which doctors and other health workers try to enhance patient care within the chosen setting which is crucial.

The survey touches on only one facet of renewal in general practice—namely, the practice itself, its staff and organization. Given that adequate human and physical resources can be provided there remain the more difficult and challenging tasks of clarifying the knowledge-base and skills of the specialty, of providing a thorough and relevant training, and of devising acceptable methods to determine the standards of competence and care which will reduce the wide limits still evident today. The strength of the service in future will largely depend on the enthusiasm with which general practitioners themselves tackle these problems.

We are indebted to our colleagues on the Working Party on Primary Medical Care for their help in planning the survey, and

particularly to Drs. R. L. Lindon and G. H. Curtis Jenkins for planning the questionnaire. We thank Miss Eileen French for her statistical advice and Miss Ann Boutland for her contribution to the secretarial work. We are grateful for the help of the Statistics Division of the Department of Health and Social Security and the Scottish Home and Health Department in drawing the sample.

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