General Practice Today

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Trounce	—	B	—	—	X	—	—
Hall	X	X	X	X	X	X	—
Hook	—	X	—	X	—	X	—
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Morris	.	O					
Hewat	X	—	—	X	—	X	—
Thornton	X	.	X	.	X	.	.
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Hartley	.	—	.	—	.	X	.
Cowie	.	—	—	X	—	—	—
Thompson						X	X
Green	—	—	—	B	—	.	—
Lloyd	B					.	
McDon				X	X	—	—
Gilbert				X	.	—	—

General Practice Today

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For previous papers see page 31.

Cover illustration by courtesy of
The Library, Royal College of Physicians, London.

The cover illustrates 2 pages from the 1850 diary of a General Practitioner, Dr Edward Hayling Coleman, of Wolverhampton.

Below is the key:

—	Requiring neither attendance or medicine
•	To be visited
x	Prescribed for
op	To be operated on
D	Requiring dressing
B	To be bled
V	To be vaccinated
C	Requiring introduction of catheter
ex	To be examined
0	Dismissed, cured etc, etc.

WITH the inception of the National Health Service in 1948 the scope of general practice was enlarged to provide free medical care for each and every member of the community. It was envisaged at the same time that the general practitioner would become a 'family doctor', establishing a personal relationship with each of his patients similar to that previously enjoyed by only a small proportion of the population. In the event, a number of factors have made this difficult to achieve.

First, and most important, medical manpower has not become available and finance for the general medical services has been strictly limited. General practitioners under the National Health Service have had on their lists many more patients than they had on their insurance panels prior to 1948[1]. Manpower in general practice has, however, shown an absolute increase. That this increase was limited was also due to the feeling that the hospital service should provide an increasing share of the medical care. Second, patients' demands and expectations have increased. Third, as for example in the case of appointment systems, the public as a whole has been reluctant to accept changes from the traditional pattern of practice as they knew it.

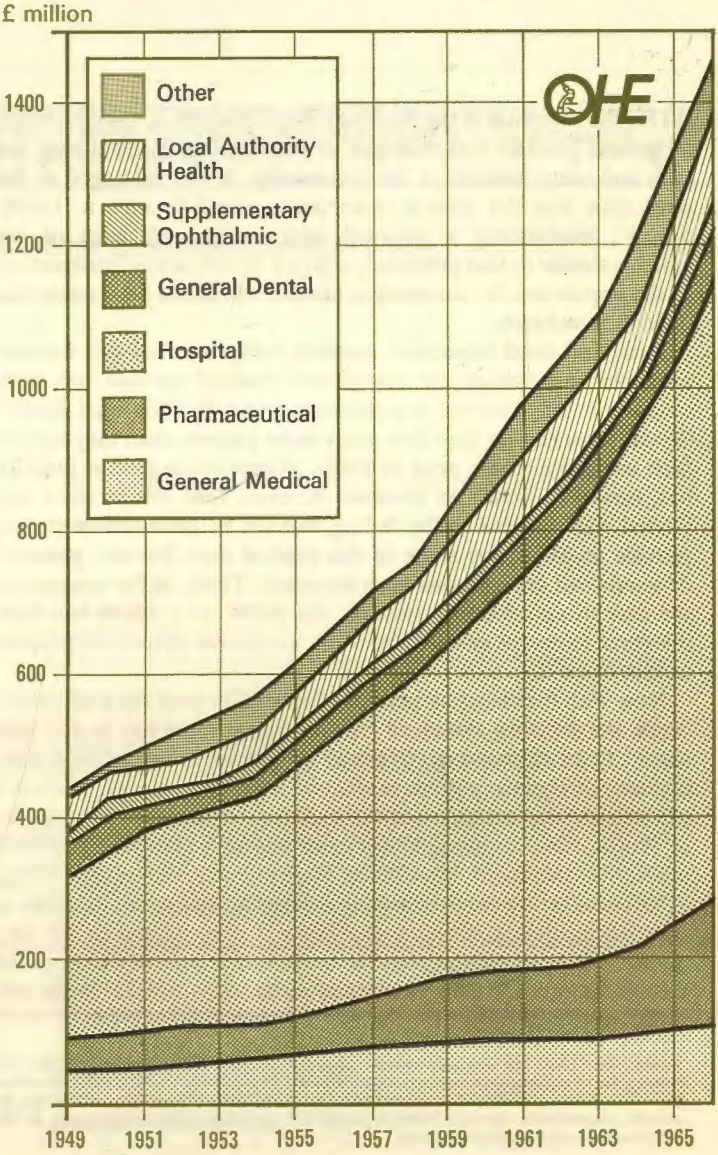
Now with the changing pattern of morbidity over the past twenty years, the previous system of 'family doctor' care has in any case ceased to be appropriate. Medical and social progress has fundamentally altered the pattern of sickness in the community. The work of the general practitioner in the 1930s was dominated by episodes of illness often requiring time-consuming and heroic, if relatively ineffective, treatment. Now illness is often contained quickly before it becomes serious and is usually treated by the administration of effective medicines, such as antibiotics, to the patient in his own home, or else by complicated technological procedures in hospital. General practice is now concerned more with chronic illness and social aspects of ill health.

[1]Under the NHS the average general practitioner's list is approximately 2500. The average size of an insurance list was estimated to be about 1100 in the late 1930s (Bradford Hill 1951). Doctors would, of course, treat many more patients than this. It excluded, for example, dependents, who had either to attend the general practitioner privately, or else seek attention as a hospital outpatient.

Figure 1

National Health Service expenditure by services, 1949 to 1966, United Kingdom.[1]

Source: Derived from National Income and Expenditure, Annual Abstract of Statistics and Ministry of Health Annual Reports, various years.



[1]Includes current and capital expenditure by Central Government and Local Authorities. The figures are for net expenditure plus payments made by patients.

In addition to these difficulties and changes the rigid tripartite structure of the National Health Service caused the three branches, the hospitals, the local health services and general practice to be administratively and physically isolated and medical care to be fragmented. The practitioner was usually divorced from his role in hospital and became isolated from many aspects of community medicine by the increased scope and function of the local health authorities. Also, the career of the practitioner was restricted for, unlike the hospital service, there was no possibility of promotion within the National Health Service and private practice became virtually non-existent. The frustration of being unable to practice family medical care, already felt since the 1911 panel scheme, has been heightened in recent years. This, together with their inappropriate training and the problems outlined above, stresses the need to reappraise the objectives and function of the general practitioner and his place in the total system of medical care. This paper examines the changes that have taken place in general practice over the last twenty years, the possible changes that will take place over the next twenty, and the extent to which general practice is preparing itself for the future.

The first section includes a brief description of the changing cost, size and shape of general practice in this country. It is given in order to put the need for re-organisation into context. A fuller account of these factors has been given elsewhere (Office of Health Economics 1963).

EXPENDITURE TRENDS

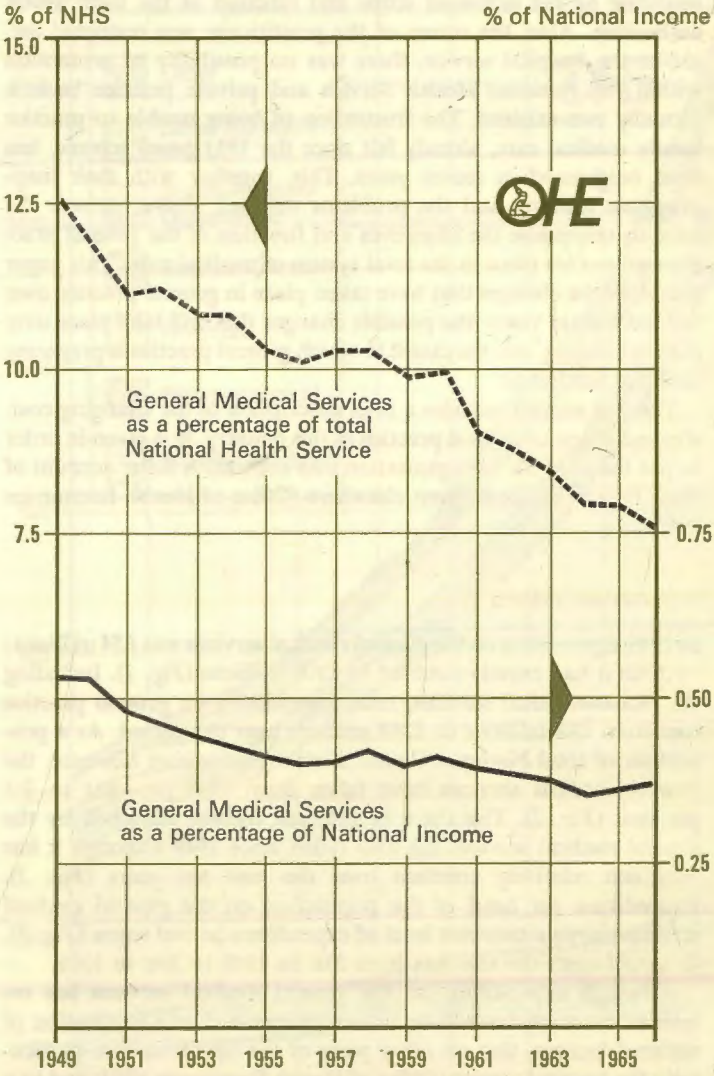
In 1949 expenditure on the general medical services was £54 millions; by 1966 it had exactly doubled to £108 millions (*Fig. 1*). Including the pharmaceutical services, total expenditure on general practice rose from £88 millions to £268 millions over the period. As a proportion of total National Health Service expenditure however, the general medical services have fallen from 12·5 per cent to 7·5 per cent (*Fig. 2*). The share of national income absorbed by the general medical services has also fallen since 1949 although it has remained relatively constant over the past ten years (*Fig. 2*). Expenditure per head of the population on the general medical services shows a constant level of expenditure in real terms (*Fig. 3*). In actual costs the rise was from 21s. in 1949 to 39s. in 1966.

Although expenditure on the general medical services has remained constant, both in real money terms and as a proportion of national income, that on other parts of the health service, particularly the hospital service (Office of Health Economics 1967) and to a lesser degree the local authority service has been growing in real

Figure 2

General Medical Services expenditure as a proportion of total National Health Service expenditure and as a proportion of National Income, 1949 to 1966, United Kingdom.[1]

Source: Derived from National Income and Expenditure and Annual Abstract of Statistics, various years.



[1] Includes current and capital expenditure by Central Government and Local Authorities. The figures are for net expenditure plus payments made by patients.

Figure 3

Expenditure on General Medical Services per head of the population at actual and constant prices, 1949 to 1966, United Kingdom.

Source: Derived from National Income and Expenditure 1967 and Annual Abstract of Statistics, various years.

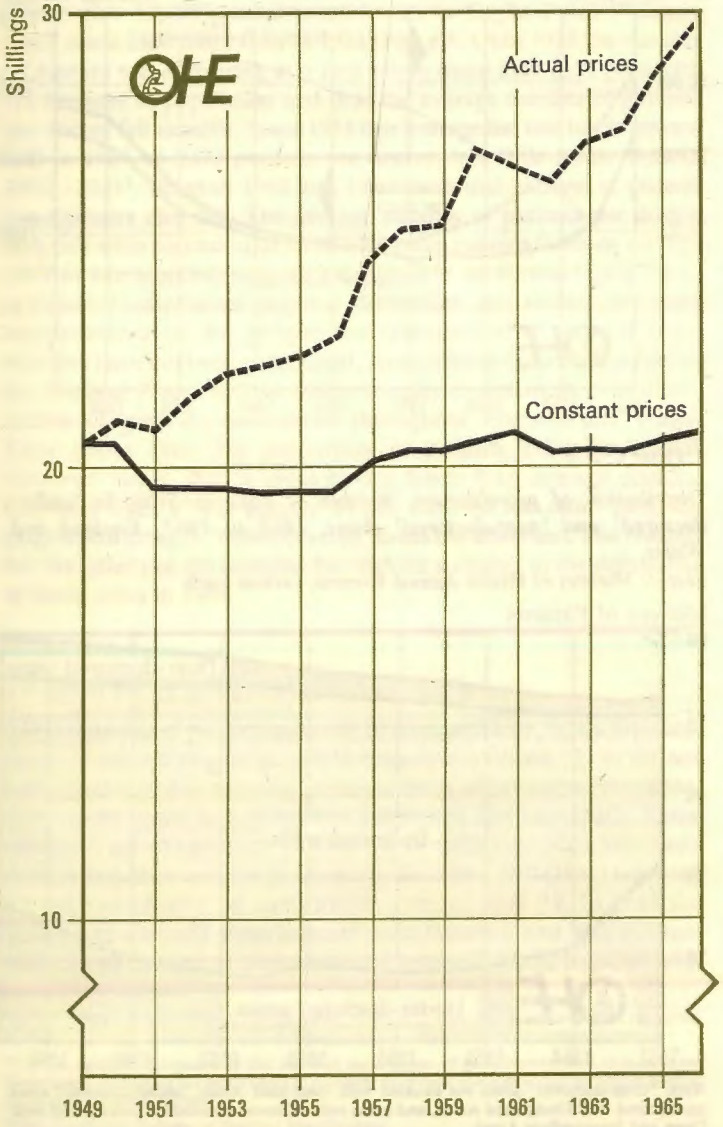


Figure 4

Number of practitioners providing unrestricted service, average list size and population per doctor, 1952 to 1967, England and Wales.

Source: **Ministry of Health Annual Reports, various years.**

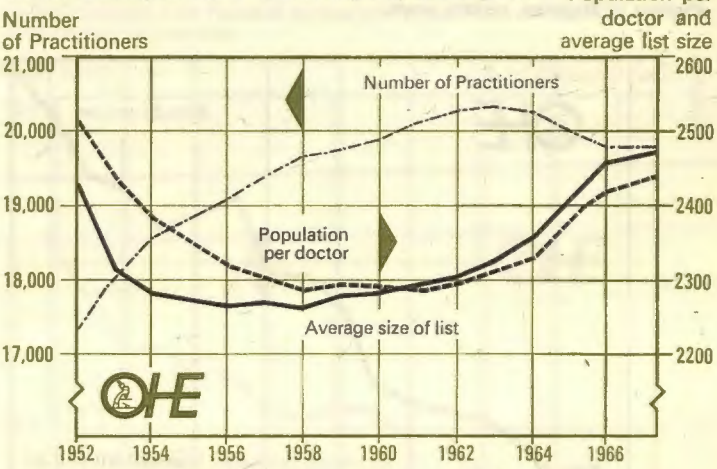
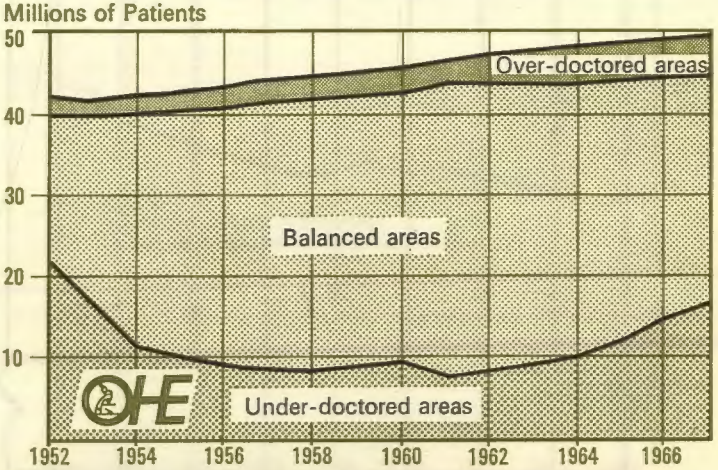


Figure 5

Distribution of practitioners, number of patients living in 'under-doctored' and 'over-doctored' areas, 1952 to 1967, England and Wales.

Source: **Ministry of Health Annual Reports, various years.**



Note. **'Over-doctored' areas are equated with Restricted Areas, 'under-doctored' areas are equated with Designated Areas, and areas with balanced distribution are equated with Open and Intermediate Areas.**

terms. This growth has been achieved because the hospital and local health authority services have absorbed most of the small additional share of national income given over to the National Health Service.

THE NUMBER OF GENERAL PRACTITIONERS

There were 19,850 general practitioners in England and Wales in 1967, some 2500 more than in 1952 (*Fig. 4*)[1]. Until 1958 the number of doctors was increasing at a rate which more than kept pace with the increase in population and thus the average number of patients per doctor fell steadily. Since 1958 this average list size has increased and in 1967, at 2472 patients per doctor, is a little geater than in 1952—2431[2]. Between 1963 and 1966 the actual number of general practitioners also fell. The average number of patients per doctor conceals wide regional and local differences ranging from an average 1547 in Merionethshire to an average 3159 in Burton-Upon-Trent.

Figure 5 emphasises regional differences and shows that early improvements in the geographical distribution of general practitioners have not been maintained. Area definitions are laid down by the Medical Practices Committee in order to obtain an even distribution of general practitioners throughout England and Wales. Since about 1961, the proportion of patients living in 'under-doctored' areas, that is areas having fewer than average doctors, has risen from 17 per cent to 34 per cent. At the same time, the proportion living in 'over-doctored' areas has also risen. The reasons for the latter rise are complex but include a change in the definitions of these areas in 1964.

Measures of performance

TWO elements of performance will be discussed here, firstly measurements of aspects of general practice where evaluation has so far not been developed and secondly, measurements where some evaluation, albeit often based on a subjective judgement, has been made. Some aspects of general practice, particularly consultation rates, have been studied and measured for many years. Bradford Hill (1951) reported on work conducted on consultation rates of 1938–39. In 1952 the College of General Practitioners[3] was founded and quickly emphasised its interest in organisational research. They, together with

[1] In addition there were some 1500 assistants, trainees and practitioners providing restricted service.

[2] A more detailed discussion of the trend in the number of practitioners and comment on these trends, including the emigration of doctors, have been given in an earlier report (Office of Health Economics 1966).

[3] Now the Royal College of General Practitioners.

the General Register Office, conducted a national morbidity survey in 1955–56 (Logan & Cushion 1958) (still the most recent national study of its kind) which measured, in detail, consultation rates. Between 1938 and the present, numerous studies have been conducted. [See for example Table A page 11, and Royal College of General Practitioners (1967).]

However, these studies although valuable often tended to be restricted, isolated, lacking in standardisation and conducted without regard to subsequent evaluation. The Gillie Committee reporting in 1962 commented 'we still had no factual information about the merits of alternative methods of personal medical care, based on detailed studies and operational research, and there is a need for this' (Central Health Services Council 1963). The College of General Practitioners (1965) disagreed with this and felt that many facts were available about general practice on which future planning should be based. Since 1963 the Ministry of Health has concerned itself with problems in this field.

MEASURES WITHOUT EVALUATION

Wide variations in consultation rates have been found both between practices and between individual doctors within practices. Table A shows the results of a number of studies. A variation from 3 to 5·1 consultations per patient per year can be seen, a difference of 5000 consultations per year or 20 per day[1]. Large geographical differences have also been noted (Logan & Cushion 1958)[2]. Other measures related to consultation rates include the ratio of surgery consultations to home visits. Again, large variations are seen (e.g. Table A). Taylor (1954) found a ratio of 7 surgery consultations to 10 home visits in one practice and, at the other extreme, 67 surgery consultations to 10 home visits in another practice. He surveyed 30 practices in all. Last (1967) found this ratio to range from 9:10 to 100:10 in a survey of 94 doctors. Large variations can also be found in the proportion of night-calls, weekend calls, calls which are considered unnecessary and the average length of time spent with each patient. Consultation rates, as such, do not measure true work load since they do not measure the time spent with each patient or the

[1]It has been suggested that consultation rates have increased recently. The little evidence available suggests the contrary. The large-scale Bradford Hill survey (1951) conducted in 1938–39 gave substantially higher rates than the Logan & Cushion (1958) study of 1955–56. A study of general practice in a health centre (Ashworth 1966) found similar rates of surgery attendances between 1959 and 1965 and a fall in home visits from 1·3 to 0·8 per patient per year. Baker (1966) and Wilson (1966), however, both suggest a substantial increase in work load.

[2]Consultation rates in Scotland have often been found to be higher than English rates. Scott and McVie (1962) found a rate of 7·2 consultations per patient per year and Stevenson (1964) a rate of 5·7 consultations per patient in 1963. It has been suggested that these higher rates are, in part, due to a difference in medical care rather than to differences in morbidity.

Table A

Consultations per patient per year, selected studies.

Source: Present State and Future Needs. A report from General Practice, College of General Practitioners, 1965.

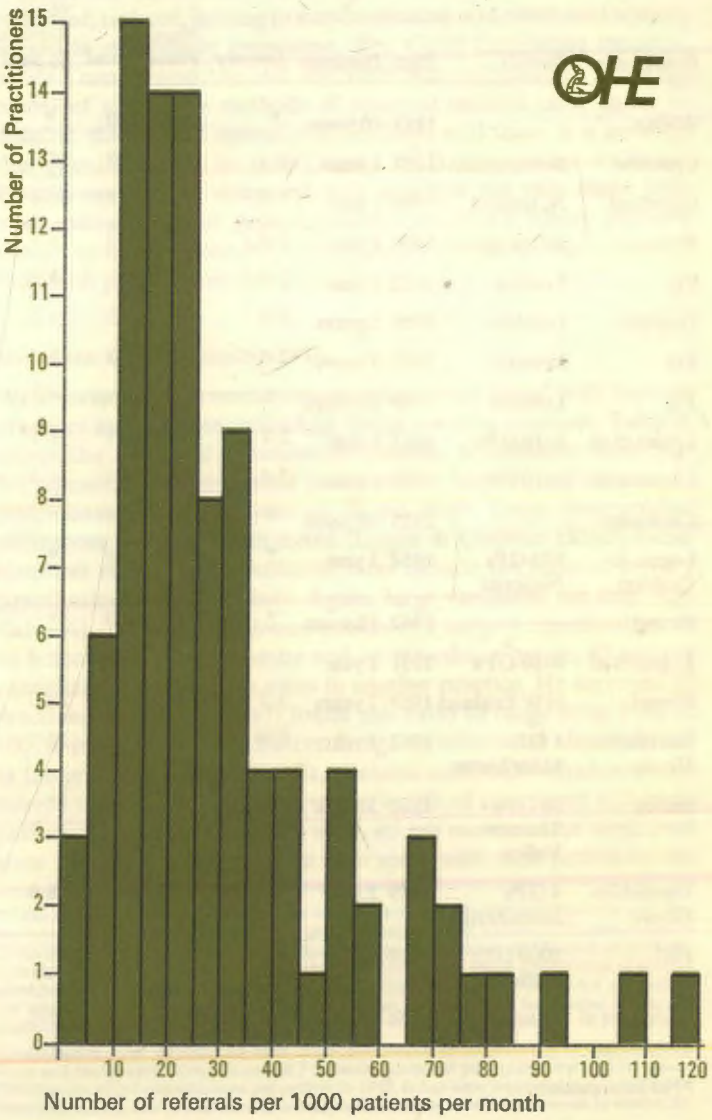
STUDY				*CONSULTATIONS*			
Participants	*Details*	*Date*	*Duration*	*Surgery*	*Home Visits*	*Total*	*Home Visits as % total*
Wellar		1953	10 years	*	*	3·0	*
Crombie	Birmingham	1954	1 year	2·3	0·7	3·0	25·0
Crawford	N. Ireland	1954	1 year	1·7	1·5	3·2	44·4
Pinsent	Birmingham	1950	1 year	2·4	0·9	3·3	28·4
Fry	London	1952	1 year	2·6	0·7	3·3	18·9
Hopkins	London	1956	3 years	2·5	0·8	3·3	23·5
Fry	London	1957	5 years	2·4	0·9	3·3	28·4
Fry	London	1949	15 years	*	*	3·5	*
Logan et al	8–10 GPs	1953	1 year	2·4	1·1	3·5	31·1
Logan et al	8–10 GPs	1952	1 year	2·4	1·2	3·6	34·4
Cookson		1955	10 years	*	*	3·6	*
Logan & Cushion	170 GPs National	1958	1 year	*	*	3·8	*
Eimerl		1952	12 years	*	*	4·0	*
Logan et al	8–10 GPs	1951	1 year	2·8	1·3	4·1	32·0
Eimerl	NW England	1959	7 years	3·2	1·0	4·2	24·0
Darbishire House	4 GPs Manchester	1963	1 year	2·8	1·4	4·2	34·0
Starey	30 GPs Thames Valley	1961	3 mths	*	*	4·3	*
Darbishire House	4 GPs Manchester	1959	1 year	3·1	1·3	4·4	28·0
Hill	5000 GPs National	1938	1 year	3·8	1·3	5·1	24·0
Beckett et al	London	1954	1 year	3·3	1·8	5·1	35·5

*No information.

Figure 6

Referrals of patients to hospital consultants by 94 general practitioners, per 1000 patients per month, 1961–1962, England and Wales.

Source: Last, J. M. (1967) *Objective Measurement of Quality in General Practice*, Supplement to Annals of General Practice (Australia), Vol. XII, 2.



time spent in travelling. This latter point is particularly relevant when comparing urban with rural areas.

Prescribing habits have been measured and wide variations have been found (for example, Weatherall 1964). Referral rates by general practitioners to hospital have also been widely measured and again large differences found with little knowledge of the cause of the variation. Figure 6 shows the referral rates of 94 general practitioners. For each 1000 patients seen per month, 3 doctors referred less than 5 patients to hospital and, at the other extreme, 1 doctor referred over 115.

The fact that differences in recorded rates occur is now widely accepted but means of evaluation are less clear. Many of the studies were conducted using different units of measurement or different definitions. Lees & Cooper (1963) have stressed the need for better methods of recording. Last (1967) has commented 'there is some evidence of Parkinson's Law of General Practice. Work expands to fill the time available or, in this case, the frequency with which patients are seen is inversely proportional to the number for whom the general practitioner is responsible'. Does morbidity vary between area and/or practice or will two doctors with the same list of patients have different consultation rates? If they differ which rate is most likely to meet the patient's needs? Are frequent but brief doctor-patient contacts 'better' than infrequent but lengthy ones? The study of doctor-patient relationships on a large scale has only recently been started and research is continuing in this field (for example, Cartwright 1967). A survey of doctors in SW England (Royal College of General Practitioners 1968) concluded that the doctor's concept of his job was a major factor in the determination of his consultation rate.

A large difference between an individual measurement and the average may mean little in itself. Averages do not establish standards which are necessarily desirable and it may be that an extreme value is a more acceptable one. Although many studies which have taken place will have acted as starting points for further research it is evident that more detailed studies are needed to discover the causes and significance of the variations outlined above. These must cover not only variables to be measured but also the means of evaluating them and of investigating the inter-relationship of the observed variables.

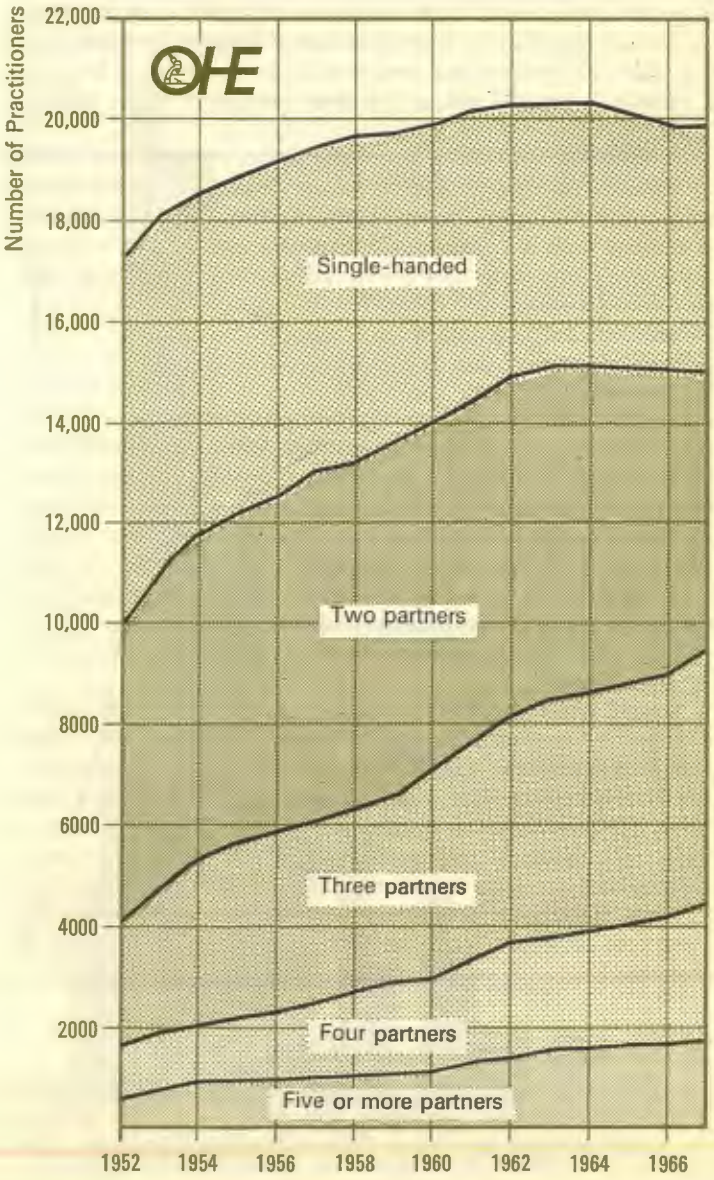
STUDIES LEADING TO IMPROVED ORGANISATION

Some specific aspects of general practice, mainly those which can be isolated and examined separately, have been the subject of study, the results of which have led to direct and measurable change. They

Figure 7

Number of practitioners by numbers of partners per practice, 1952 to 1967, England and Wales.

Source: **Ministry of Health Annual Reports, various years.**



include the organisation of group practice, record keeping, appointment systems and the use of ancillary help. They also include the usefulness of postgraduate training courses and open access to hospital diagnostic facilities by general practitioners.

Over the past fifteen years there has been a decline in single-handed practices and a steady movement towards partnerships of doctors, particularly group practice. Teams of general practitioners working together were suggested as early as 1920 (Consultative Council of Medical and Allied Services 1920). Taylor (1954) showed the advantages of group practice and listed eight criteria for successful practice. The Gillie Report (Central Health Services Council 1963) commented that doctors in group practice and health centres work together best when in partnership and suggested partnerships of four or more to take advantage of a full-time and qualified nurse. More recently, the Royal Commission on Medical Education (HMSO 1968) has suggested that groups of at least a dozen members have economic and professional advantages as well as bringing benefits to patients. Working in groups aids communication between doctors, enables scarce facilities such as diagnostic equipment to be used efficiently, allows doctors to share secretarial and nursing personnel and helps them to provide a 24 hour a day service. As the pattern of medicine and medical care has changed over the past twenty years the undesirability for general practitioners, except in special circumstances, such as those living in remote rural areas, to work on their own, has become apparent. Even so there are still over 4500 single-handed general practitioners (a quarter of the total) and a further 29 per cent in partnerships of two (*Fig. 7*). Furthermore, not all groups work from central premises and Cartwright and Marshall (1965) showed that only 15 per cent of groups of four or more doctors work from a single central building.

Premises and equipment have also been critically examined in a number of studies from that of Collings (1950) onwards and it was quickly recognised that working from aged and often unsuitable premises may prevent efficient practice. Much progress has been made in the design of premises and the General Practice Advisory Service which was set up in 1963 gives guidance on this and other problems. Loans and grants are now available to group practices and it is envisaged that a greater number of doctors will work from modern, purpose-built premises. A number of health centres, which attempt to bring together general practice and the local health authority under one roof, are now being erected. It is estimated that there will be 300 in existence by 1976, although still only serving some 10 per cent of practitioners by that time. In 1965 a majority of doctors felt, however, that premises should be privately owned (*British Medical Journal* 1965). New and adequate premises alone

are not sufficient to bring about changes in the approach to general practice, as Dillane (1966) found when he visited a number of practices in 1965. Standards of good premises and equipment change over time and revision of needs will be necessary for they are, to some extent, dependent on the defined role of the general practitioner.

Record keeping, including easily handled data on the age and sex and morbidity profiles of each of the patients on a doctor's list, was pioneered by the Royal College of General Practitioners and its research panel. In the early 1960s the College developed age/sex and morbidity registers[1]. Some epidemiological data from a sample of general practitioners is now being produced regularly but is as yet unpublished. Although the need for, and the use of, statistical data has been demonstrated, there are obvious practical difficulties facing the individual practitioner and it is estimated that only between 300 and 400 practices keep an age/sex register of their patients although much valuable information can be obtained from the standard medical cards kept by all doctors.

The use of appointment systems in general practice is a further aspect of organisation which has been clearly demonstrated to be advantageous to both the doctors and the patients. 'It is arguable that if one were planning a general practitioner service de novo the question of whether or not appointment systems should be instituted would scarcely arise; in most cases they would be taken for granted', commented Bevan and Draper (1967). They point out, however, that in some cases full appointment systems may not be justified. Horne (1952) and Taylor (1954) pointed to the successful use of such schemes as did the 1963–65 Bevan and Draper survey (1967). By 1965 the use of such systems was still comparatively limited: the latter study found only 13 per cent of principals using some type of appointment system, although this figure was substantially higher than the 2 per cent found by Hadfield (1951). (These surveys, however, are not directly comparable.) An appointment system means having a receptionist scheme and this has now been aided by the new Doctors' Charter based on the Seventh Report of the Review Body (Review Body on Doctors' and Dentists' Remuneration in 1966). Under this, doctors receive direct reimbursement to cover the major part of the cost of ancillary staff. In the last two years the use of appointment systems has increased considerably and by mid-1968 over 40 per cent of doctors were using a full or partial appointment system (Lloyd-Hamol Ltd. 1968).

[1]These registers can then be used in preventive medicine to identify particular groups of patients. For example, if a doctor required to identify or contact all women of child-bearing age he could turn to females aged 15–44 on his register and there find a complete list of all his patients of that age and sex. Similarly morbidity registers list patients by illness category.

Some ancillary help was employed by 65 per cent of practices according to the College of General Practitioners (1965), although only 9 per cent employed a nurse directly. The Gillie Report (Central Health Service Council 1963) suggested that every practice needs trained secretarial staff, possibly with nursing experience; the cost, which they called a serious burden, has now largely been alleviated. The problem of making the medical work load of the general practitioner lighter has created much discussion. The College of General Practitioners (1965) has suggested that experiments are needed to investigate whether trained ancillary workers may be able to undertake some of the doctors' duties. State Registered Nurses have been used with success in general practice (Smith 1967) and can be particularly important in rural areas. Forbes and his colleagues (1967) found no reason why a trained nurse should not filter a large proportion of urgent demand cases and Hodgkin (1967) suggested that a nurse could, in total, save 10–15 per cent of the doctors' time. A point of contention surrounding the use of nurses in general practice is the extent to which they can be used to see patients before the doctor and pass on only the more serious cases. Cartwright and Scott (1961) reported on the work of a nurse in a practice. Patients consulting for the first time, however, always saw the doctor.

Other community health workers under the existing structure of the health service are employed by the local health authority and therefore cannot be employed directly by general practitioners. Experiments are, however, taking place to examine the function of schemes under which local authority personnel are attached full time to a single practice. There have been many studies, including the early study of Chalke and Fisher (1957) and the more recent studies of Fry and his colleagues (1965) and the Social Medicine Unit at Guys Hospital (1968), which have shown the usefulness of the attachment to general practitioners of local health authority workers such as health visitors, district nurses and midwives and of hospital workers such as medical social workers (almoners). The research team of practitioners in south west England (Royal College of General Practitioners 1968) found it astonishing that the trained social worker had (as yet) found so little place in family practice. The pioneering work of Scott in Edinburgh (1949) aided research on integration between a medical social worker and a general practitioner (Forman and Fairbairn 1968). This latter study demonstrated the value of such integration. It suggested that, even if general practitioners are in future educationally better equipped, they cannot expect to handle complex social and emotional problems unaided. As yet very little direct integration has developed between the social worker and the practitioner.

Table B

Postgraduate courses attended by general practitioners as a proportion of all general practitioners[1]*, 1952 to 1966, England and Wales.*

Source: Ministry of Health Annual Report, various years.

Year	*%*	*Year*	*%*
1952	5	1960	12
1953	6	1961	13
1954	6	1962	15
1955	7	1963	19
1956	8	1964	31
1957	8	1965	33
1958	10	1966	42
1959	11	1967	56

Although attachment schemes have been referred to as being useful, general practitioners are mixed in their attitudes. In two surveys (Medical Care Research Unit Survey 1963, Wessex Regional Hospital Board 1964) between only a half and two-thirds of doctors wished to have nurses and midwives attached and between only a quarter and a half to have health visitors attached. The Social Medicine Unit at Guys Hospital (1967) showed that 11 per cent of health visitors, home nurses and domiciliary midwives were reported to be working in attachment schemes in England and Wales at the start of 1967; this compared with 3 per cent at the end of 1964. It is believed that Oxford is the only local authority to have a complete attachment scheme covering all practices (Warin 1968). The use of paramedical staff requires comparatively large premises to accommodate them and also requires implementation of the recent concept of a health team. Experiments must be carried out to find the needs of the general practitioner and his patients for such workers, optimum patient ratios per worker and the best method of organising such a health team.

Postgraduate education for general practitioners has long been needed because of the rapid change in medical care and knowledge. A study in America (Peterson 1956) showed that after ten or more years in general practice the practitioner's performance bore little relationship to undergraduate academic record. Table B shows the recent rise in attendance at postgraduate courses arranged by universities for which fees and expenses were payable by the Ministry of Health. The recent Review Body's recommendations (1966) now

[1]This is not the proportion of all general practitioners attending courses as some doctors attend more than one course in a year. In 1967 the total of 12,007 attendances was made by 7715 doctors or 39 per cent of the total. Also the definition of a postgraduate course is wide and may include a single afternoon session.

provide a further inducement to doctors to attend these and other courses.

It is also recognised that general practice should be treated as an integral part of the undergraduate medical training for all medical students and would include the study of the behavioural sciences and of preventive medicine. It is suggested that on completion of a five year undergraduate training those wishing to make a career in general practice would then train for a further five years, of which the last two would be as a trainee in a practice (HMSO 1968). Studies are needed to develop criteria for training and to test the efficacy of such in follow-up studies over many years of clinical performance.

Finally studies have been carried out on the relationship between the general practitioner and the hospital. Although it has been suggested that a greater degree of involvement between general practitioners and hospitals is desirable, the role of the practitioner in hospital has not entirely disappeared. In 1966 some 6582 held part-time hospital appointments. That is one third of all practitioners. The work they do in hospital, however, is very restricted and they were responsible for only 11,456 beds (4428 maternity), 2 per cent of the total. They also examined 157,000 new patients at out-patient departments and dealt with nearly half a million total attendances but once again only a small fraction of the total.

Variation in the rate of referral has already been commented upon and part of this variation may be due to the difference in availability of direct access to hospital diagnostic facilities, such as clinical pathology and radiology facilities. Direct access has, in many cases, been shown to be a useful organisational tool for the general practitioner. Clarke and Rickards (1965) suggested that over £5 million a year could be saved by making access to an X-ray service available to all practitioners. The principle has been accepted by the Ministry of Health for a number of years and fears that direct access might lead to abuse of the service have been found to be unwarranted (Murray 1960, Fry et al 1964). Even so, full diagnostic facilities are not provided in all areas and a survey (Medical Care Research Unit Survey 1963) showed that 21 per cent of general practitioners did not have access to an X-ray service. No more than 11 per cent had open access to electrocardiography; however the desirability of this is less certain. Direct access may mean additional training for the general practitioner in the use of some of these diagnostic facilities. It also will need to be accompanied by better personal communication between those operating the services and the practitioner so that the practitioner will be able to obtain advice.

Where direct access is available, there are large variations in the

Table C

General Practitioners' use of direct access diagnostic radiology, 1961–63, selected areas, England and Wales.

Source: Outpatient survey, Medical Care Research Unit, University of Manchester; from College of General Practitioners (1965).

Area	*Range of use per 1000 patients*	*Average rate of use per 1000 patients*	*Percentage of general practitioners NOT using access*
Welsh town	0–51	21	Nil
S coast resort	0–81	25	6
NW industrial town	0–80	20	9
E Anglian town	0–81	30	11
NW resort	0–130	9	15
E Englian town	0–17	5	18
Northern town	0–35	5	18
NW industrial town	0–80	17	29
Southern city	0–88	35	33
Northern city	0–37	7	40

usage of the service between different parts of the country and between different doctors. Table C shows this variation. Godber (1959) has suggested that three-quarters of the work of practitioner diagnostic services is done for one quarter of general practitioners.

Clearly further study is needed to evaluate these variations and to discover any differences in the quality, convenience and cost of medical care provided. The problem, however, may be one of elucidating reasons and then implementing change for the 40 per cent of doctors in the northern city, for example, who have open access to diagnostic radiology but do not use it. Forsyth and Logan (1960) concluded that 'the rate of referral to hospital did not vary with the size of practice list, frequency and cost of drug prescribing or, most surprising of all, even with the use of direct access to diagnostic facilities such as pathological laboratory and X-ray. In fact the last two were not even related to each other'.

CURRENT STUDY

Much of the organisational research that has been, and is being conducted has been criticised. Firstly, it is said that the techniques themselves are often not standardised nor are the results always valid because, for example, of the difficulty of obtaining statistically

Table D

Expenditure on general practice organisational research authorised as a charge to central government research funds, 1965–66 to 1967–68, England and Wales.

Source: Ministry of Health, pers. comm.

	£
1965–66	12,702
1966–67	17,651
1967–68 (est.)	28,000

random samples. Secondly, variables have generally been measured in isolation and thus defy interpretation. Thirdly, implementation of the results has also generally been overlooked. Finally, aspects of medical care have been examined in general practice without regard to the other parts of the health service.

It is recognised, however, that general practitioners have subjected themselves to more operational research than many other workers in the health field and also that operational research is extremely difficult to conduct in general practice because of its fragmented nature. Either the practitioners conduct the research themselves, in which case it has been difficult for the sample to be representative or it is conducted by outside research workers, a system which may also have its limitations. The Royal College of General Practitioners and its members[1] has, to some extent, helped to overcome this problem by setting up a research panel from which samples of practices are drawn. They now conduct a considerable amount of research, some paid for by the Ministry of Health.

The Ministry financed no general practice organisational research until after the Gillie Report was published in 1963. Since then it has begun to promote and finance such research. The first year of appreciable spending was 1965/66 and Table D shows the expected expenditure trend. Research projects include a study of communications between general practitioners and hospitals being conducted by the Institute of Community Studies and a study of general practice in a large London borough, to define training and service requirements, being conducted by St. Thomas's Hospital Medical School. Other research covers the use of nurses in general practice and the study of health centres.

In addition, research is conducted at Edinburgh University, where there is a chair of Medicine in Relation to General Practice and at Guy's Hospital Medical School in its General Practice Research and

[1]British membership now numbers over 6000, approximately one quarter of all general practitioners.

Social Medicine Units. Other university departments in social medicine undertake general practice organisational research and the Nuffield Provincial Hospital Trust and other charitable organisations promote research by awarding grants. The Medical Research Council does not support or undertake organisational studies in general practice. The Social Science Research Council has recently shown some interest in this field.

Although the Ministry has been slow in assuming a degree of responsibility for organisational research in general practice it has now accepted as its function to co-ordinate, and sometimes finance, research. Many of the ideas and much of the research itself, however, must still be generated from within the profession.

The Future

General practice has been the subject of much speculation and controversy over the past few years. It is, however, generally agreed that it will continue in essence into the forseeable future (World Health Organisation 1964, HMSO 1968) although its function and organisation is bound to undergo radical changes.

The College of General Practitioners (1965) summed up the essential features of the practitioner as a personal, family and community doctor, who as a doctor of first contact protects both the patient and the hospital from unnecessary hospitalisation. He also co-ordinates all medical and social services for this patient whom he sees in the patient's own environment. The College see his role in the future as providing a personal medical service for the 'whole' patient in his total environment.

It is now coming to be accepted, however, that the doctor can no longer care for his patients alone and that to maximise efficiency he can be helped by a regrouping and reorganisation of paramedical personnel. It is increasingly recognised that the practitioner should be responsible for preventive medicine and the provision of comprehensive health care including the aiding of psychological and social as well as physical problems. To these aims general practice must be organised in a very different way and the concept of a health team has emerged. The team would include secretarial and nursing help, together with health visitors and social workers. The exact groupings cannot be stated in more detail for there 'will be problems in defining the kind of non-medical staff who can contribute most usefully to the work of medical practice' (HMSO 1968). The practitioner would lead this team and the use of such staff could be most fully utilised by doctors themselves forming a team of say four to six practitioners with possibly one doctor leading the group. Also, each doctor might care for many more patients than at present,

instead of 2500 perhaps 6000 to 10,000 as in some areas in Sweden. The College of General Practitioners (1965) suggested that possibly other members of the health team could screen many of the doctor's patients first and thus the doctor could utilise his time more fully in developing the preventive aspects of medicine by periodically examining 'high risk' sections of his patients. One of the most important aspects of the practice will be the sociological and epidemiological records which it maintains for a population under its care. Such records could be linked and used for epidemiological studies by a medical officer for a geographical region. The use of workers other than the doctor for front line medical care does not mean that the nurse becomes a substitute for the doctor as in the Feldsher system[1] —it implies the greater need for delegation. This type of delegation, with doctors still retaining overall responsibility, has existed for many years in the hospital service. In future there may be a move away from the practitioner being available on demand and a move towards availability according to need—which could be decided by the delegated auxiliary. This often already happens in the case of the accident service. As head of the team the doctor will be a manager and as such will need to have some flair for, and basic training in, management.

Many of the essential features of general practice will still be retained. Last (1967) questions the almost axiomatic acceptance of continuous care and suggests that there is little supporting evidence in its favour and sometimes, he suggests, it may actually be harmful—for example where a doctor may miss a correct diagnosis through familiarity with the patient. It is probable, however, that on balance continuous care is desirable but will in future be carried out by the health team. Thus the patient will not, on every occasion of ill health, always see the doctor but when the patient does see the doctor (with occasional exceptions, such as a call out of normal hours) he will always see the same doctor.

Family care, too, will be continued. Mckeown (1962) has argued that it is necessary to expend with family care in order to preserve personal and continuous care[2]. He also argued that one doctor can no longer be competent to deal with all age groups. He suggested that personal doctors should be divided into obstetricians, paediatricians, general physicians and geriatricians along lines similar to the American and Russian system. This greater degree of specialisation may not be necessary with the future reorganisation and in

[1]The feldsher is a medical auxiliary who is an independent practitioner, frequently in rural areas, supervised on a regular basis by qualified physicians of the area clinic or hospital. It is a system of care developed in Eastern Europe, particularly in Soviet Russia.

[2]Personal care is where each patient has only one doctor of first contact and continuous care implies that for each episode of the same illness over time the patient always goes to the same doctor.

any case seems undesirable on four counts. Firstly, it would seem appropriate that a doctor with a general knowledge of medicine, particularly community medicine, would act as a doctor of first contact and protect the patient and the hospital specialist from unnecessary inconvenience. Last (1967), in fact, sees this as the main function of the practitioner and defines him as 'offering direct access to medical care for previously unselected patients'. Secondly, the care of the family is divided between two or three doctors despite the fact that the individual often needs to be diagnosed within the context of the family environment. Thirdly, specialists do not like to practice far from a large hospital—in America rural communities often have difficulty in obtaining primary medical care. Finally, ill health does not divide easily by arbitrary age categories. Nevertheless, it is probable that within groups of doctors practising together, over the years some doctors will become more knowledgeable in a subject of interest to them such as paediatrics or geriatrics. Other doctors within the group can then turn to them for advice on that subject and thereby raise the standard of care for the practice as a whole.

Although the patient may not see the doctor as often as at present, there must always be a personal relationship whereby the patient has confidence and trust in the doctor. One of the problems of the health team will be that the patient may become perplexed by the number and the role of different members of the team. The question of communication within the health team and between a member of team and the patient will be of the utmost importance.

To form group practices and health teams and also to take full economic advantage of improved diagnostic facilities it will probably no longer be adequate for each doctor to work from separate premises; large specially designed buildings are required. Health centres, first suggested some fifty years ago (Consultative Council on Medical and Allied Services 1920), where a number of general practitioners share the premises with local authority workers and where there is available a number of diagnostic facilities are now being erected in comparatively large numbers. Draper and Israel (1968) have suggested a community care unit which would co-ordinate all non-institutionalised 'medical' care under one roof. Each unit would have some 10–20 practitioners who would work in 3 or 4 teams, each team having its complement of para-medical workers. The units would include full diagnostic facilities and a complete range of services for patients and their families with physical, psychological and social problems. They would also include outpatient facilities and possibly day-beds, to allow for minor surgery. These units, it is hoped, would improve practitioner-consultant relationships by bringing the consultant more into the

community by attending at the unit. They would also help to alleviate any of the open-access difficulties outlined previously. It is suggested that schemes of this nature might be set up as trials in certain areas. Some cottage hospitals might be suitable for conversion into community care units.

With advanced diagnostic facilities centred at the place of work of the doctor and the difficulties of doctor mobility, particularly traffic difficulties in urban areas and travelling distances in rural areas, domiciliary visits by the practitioner will be much reduced. Domiciliary care, however, will still have a part to play in community medicine of the future as it can sometimes provide the key to a diagnosis. Often, however, it may be a member of the practitioner's team who will conduct the visit.

The theory of community care units emphasises the need for planning medical services as an integrated whole. Changes in general practice must be made in conjunction with changes in the other health agencies. Fry (1967) stated 'over the past decade we have had a surfeit of reports and commissions on national plans for hospitals, public health and welfare, and general practice. Each report has been separate and distinct. The administration has not considered it necessary to prepare a single master plan'. He also comments that 'the chief reason why progress has been slow is the lack of any recognisable pattern by which changes affecting all three branches of the health service may be achieved'. Although the Ministry has recently published a paper on the administrative structure of the services as a whole (Ministry of Health 1968) in which it suggests the discontinuation of the present tripartite structure and the setting up of area health boards, research is needed into the more basic problems of the needs, demands, supply and evaluation of health and welfare provisions. Complete systems of care, from self-medication through to long-stay hospitalisation (and finally death) need to be examined. Forsyth and Logan (1960) attempted a study of this nature in Barrow and the Wessex Regional Hospital Board (1964) conducted a survey to consider the needs of the general practitioner in their area. Little research, however, has been conducted at the planning stage and while new town planning has advanced considerably in recent years, health planning has largely been ignored. An attempt to rectify this is being made at Thamesmead for example (Smith et al 1966). Further study, to set up a mathematical model of a complete range of health requirements which can then be used for further experimentation is needed and some preliminary investigations of this is now being started at Edinburgh (Wadsworth 1968).

General practitioners themselves desire a greater degree of integration with the hospital services and with local health authorities.

The majority do, however, also wish to remain independent contractors and to own their premises (*British Medical Journal* 1965). The phrase 'independent contractors' is not precise. It seems that the method of payment of the general practitioner may become less important in the future provided his clinical freedom is preserved. Under the proposed Area Health Boards all members of the health team would presumably be paid by one agency. Gillie (Central Health Services Council 1963) suggested integration of the health service within the existing administrative framework. It seems more likely that there will be changes in the administration.

Finally under any system the quality of medical care needs to be measured and evaluated. An index of 'health' which can be easily measured is one way of assessing quality. Mortality, even infant mortality, is now too crude a measure but possibly some measure of disability or morbidity might be devised. These measures would obviously be more difficult to apply at the individual doctor level, but some yardstick of the continuing competence of practices is needed. Last (1967) stated that the work of the general practitioner is 'unsupervised and self-regulated'. He points out that this does not necessarily preclude improvement. He suggests that quality control in general practice is possible and is done on a limited scale in America where a number of randomly selected doctors' records are reviewed from time to time and discussion then takes place where deficiency is revealed. The doctors themselves do not resent this and are often pleased to be involved (Peterson 1956).

At present, the fact that variations occur between doctors can be a useful research tool. In any case it might be undesirable if general practitioners were made to apply a particular pattern of practice which research has shown to be theoretically the most efficient. Nevertheless evaluation of medical care is clearly required and practitioners, some sooner than others, would no doubt implement soundly based research findings.

Implementation can be aided in four ways. Firstly, an organisational research attitude should be instilled into the training of doctors (HMSO 1968). Secondly, studies should be conducted among all medical and para-medical workers to consider the reasons for not accepting change. Failure to accept change at local, regional and national administrative levels may also be a powerful barrier and this too should be investigated. Thirdly, more regional medical advisors are needed, perhaps in the form of the existing regional medical officers of the Ministry of Health, although with a more positive role[1]. Finally, efficiency might be more closely linked

[1]The Gillie Report (Central Health Services Council 1963) commenting in 1963 stated that there was only one regional medical officer for 300 to 400 doctors. Today the number is roughly the same.

with financial rewards. Certainly efficiency should not involve financial loss as has sometimes been the case until recently.

The role of the general practitioner, in the future, will be to determine the medical needs of several thousand people and to continue to provide personal, continuous and family care for these people. He will arrange the treatment they require, even though he may not be involved in administering it, and ensure they receive appropriate preventive care. He will take full responsibility for his patients, coordinate other medical needs of the patient and act as manager to a group of auxiliary health workers. To achieve this, general practice will, however, need to reorganise completely both from within and in relation to the other parts of the health service. To this end it is probable that within a few years the health services of this country will be integrated into a unified whole. This integration has already started in practice and the Ministry of Health has proposed that it should be given statutory recognition. The emphasis of this integrated service must be on community care, for it is in the community and not in hospitals that the vast majority of episodes of sickness are treated. This will inevitably extend the responsibility of the general practitioner.

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Remember all Light upon Mrs Falkener

FRIDAY 8

SATURDAY .. 9 Sent Mr Lewis to Codale
Mr Burnt stayed all Evening

SUNDAY .... 10.

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